



NEAR EAST UNIVERSITY

INSTITUTE OF APPLIED AND SOCIAL SCIENCES

DEVELOPMENT OF WAP APPLICATION FOR THE
UNIVERSITY WAP SITE

We certify this thesis is satisfactory for the award of the
Degree of Master of Science in Computer Engineering.

WAQAR MALIK

MASTER THESIS

Department of Computer Engineering

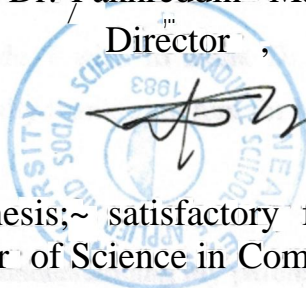
Nicosia - 2003

Waqar Malik: Development Of WAP Application For The University
WAPSite

Approval of the Graduate School of Applied and
Social Sciences

Prof. Dr. Fakhreddin Mamedov

Director



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Assoc. Prof. Dr. Rahib Abiyev., Committee Chairman, Computer
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ABSTRACT

The way to connecting to internet is changing now day by day. In these days hand held devices are coming in use to connect to the internet. There are many services given in the market through which you can connect to the net. But the most popular one in these days is WAP. Most of the devices are WAP enable.

The modern way of living requires anytime and anywhere access to some relevant content where quick decision is needed. That is why WAP applications are characterized with dynamically generated content. In order to obtain the latest information, these applications are interacting with one or more databases. This way the user always gets the latest information without any intervention in the process.

In response to this reality, I thought to develop a WAP site for our University through which the student can facilitate themselves. The main idea was to give access to the database through the mobile set or any hand held device, from which they can access their results, courses, topics date, latest news related to University, and students can tell about their location. The idea was to also transform the existing University Website into WAP site, so that anyone can also check the information related to the University from his handheld device.

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INTRODUCTION

In the past few years, the growth of at least two things had influenced every person's life, the internet and the mobile phones. During these years we are witnesses of the "going online" tendencies. Not only companies but also persons have their own web pages. The number of mobile phone subscribers grows from year to year.

The natural need for connection of these two technologies is growing. This idea covers many issues: checking e-mail without standing in front of a PC, accessing information on the internet no matter wherever someone is, checking movies at cinema without getting off a chair, checking traffic information from the car etc. Going even further we can think of location services: if we are on a place we have not been before and want to go to the cinema, the application should be able to find the nearest cinema with a touch of a button. All these services are provided using WAP.

WAP is shortcut for Wireless Application Protocol, and it is a set of specification for developing web-like applications that run over wireless networks. The main purpose of WAP is to provide web-like experience on small portable devices like mobile phones and PDA's.

The objective and aim of this thesis was to make a dynamic WAP application for the University, through which the students of the university can be facilitated, and others can also access any kind of information regarding to the University on their mobile sets or PDA's.

This dynamic WAP application provides students to check their results providing their Registration number to the application on their mobile sets. Then the students can also see their courses topics and date which will be taught in the next week after providing the course code. Students can also see the Alumni of the University on their mobile, and can search for alumni to get his/her e-mail and city. The students can also see any other student location by providing his/her name to the application, and they can also enter

their location for other students to contact them. The students can see the latest news about the upcoming events in the University provided in the application. And students and other persons can also see the information regarding to the University form their mobile devices or PDA's.

All of the information which is fetched on the mobile device is stored in the database. The WAP application is connected with the database to fetch all the information from the database. For completing this task and to connect the application with the database I used ASP (Active Server Pages) and ADO (Active Data Objects) which are Microsoft Technology. Microsoft Active Server Pages (ASP) is a viable technology for developing dynamic web content. Its popularity can be seen from the many web sites sporting documents with the .asp extension. Because ASP is a server-side technology, it is well suited to creating dynamic WAP applications, especially in the area of database access. The language used to develop the WAP application is WML (Wireless Markup Language). The main task was to combine the WML and ASP and making database connection through ADO with the database, which was made successfully.

In the first chapter I have described about the WAP and Mobility, and how we look at the net now.

In second chapter I have defined the architecture of WAP, what is WAP client, what is WAP Proxy, WAP Gateway Or WAP Server, and WAP gateway functionality. I have also defined about the WAP internal structure and the components of WAP architecture, and the bearers used to transmit the data on the wireless channel.

In third chapter I have described about the software tools and their configurations used in the WAP application development, and how to configure the Nokia Toolkit with IIS.

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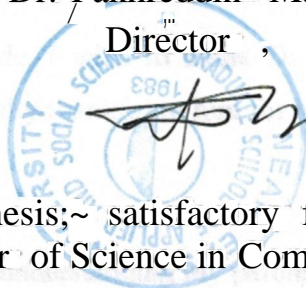
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In the past few years, the growth of mobile devices and wireless networks has been rapid. The demand for mobile devices and wireless networks has increased significantly. This paper discusses the design and implementation of a mobile device management system. The system is designed to manage mobile devices and wireless networks. The system is implemented using a mobile device management system.

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mobile using ADO (ActiveX Data Objects) and ASP (Active Server Pages) combined with WML (Wireless Markup Language).

in fifth chapter I have showed simulation of the WAP application, that how the user can interact with the application.

1. MOBILITY AND WAP TECHNOLOGY

1.1 WAP Forum

In 1997, Phone.com got together with Ericsson, Motorola and Nokia to form the WAP Forum, with the aim of creating a standardized solution to the problem of how to provide Internet access from mobile phones. In 1999, we saw this becoming a reality, as the first WAP phones hit the streets.

WAP the Wireless Application Protocol is a communications protocol and application environment for the deployment of information resources, advanced telephony services, and Internet access from mobile devices.

Back in 1995, in the US, Unwired Planet introduced HDML – the Handheld Device Markup Language – which is a cut-down version of HTML, designed to run on wireless devices. And, in Japan, the operator *NTT DoCoMo* introduced a service called i-mode in early 1999. This has become a very popular technology, with almost 7 million users accessing Internet services from mobile phones, which has been driven largely by the youth market.

These two technologies present us with an interesting question: which is the winning technology? Is it the one providing the best technical solution to a given problem, or is it the one that is most widely adopted? This was probably the question that was asked at Unwired Planet (now Phone.com) during 1996 and early 1997. Recall that Unwired Planet was the first company involved in the development of a new technology devised to port Internet services to wireless users. They could have kept on focusing just on the development of HDML, letting it grow in the US as NTT DoCoMo has done with I-mode in Japan. However, they choose instead to get the major mobile phone manufacturers involved in their project, reckoning that the more devices there were that supported the technology in the world market, the more they could sell their wireless Internet solutions around the world. Involving other companies, each one with a large customer base in different parts of the world, has helped to promote the newborn technology.

Thus the WAP Forum was created by Phone.com, Ericsson, Nokia and Motorola. Everyone got 'infected' by the WAP vims, with network operators and device manufacturers struggling to offer the new technology to their customers, just to stay competitive. The Phone.com WAP gateway - UPLink: - is the most mounted in operator networks. Also, the Phone.com software application - UP.Browser, which allows the mobile phones that it is installed in to receive WAP data - is present in a large fraction of the WAP compliant mobile phones around the world.

1.2 WAP and the Wireless World

In recent years, wireless telecommunications have become a common subject of technical papers. The new trend in technology is to provide users with the ability to have all they could possibly need in a pocket sized device.

Smaller and smaller PDA's (Personal Data Assistants), laptop computers and mobile phones are hitting the market, incorporating brand new features designed to let the users work and access documents in whatever situation they are in. the Internet is considered with particular interest, given the fact that it is widespread and easy to access from almost anywhere in the world.

One of the latest innovations in the field and the one that has shaken the telecommunications world to its roots is WAP. It introduces a new way of looking at the wireless phenomenon letting the applications 'follow' their customers and provide them with innovative services.

1.3 Mobility

Mobility is the new buzzword in the business world and over time, expectations have risen about exactly what this means. In the late eighties and early nineties, mobility was associated with the ever-reached salesman and his mobile phone. This concept expanded (mainly across Europe and Asia) with the advent of Global System for Mobile communications (GSM) in 1991. It is also possible to connect your laptop to a one, whether by cable, IR port or, in the near future, the much anticipated Bluetooth.

Here is a definition for mobility that might work in today's business world:

"Mobility is the ability to access information and services any time, anyhow, anywhere"

This information might be an e-mail that your boss sent you, asking for a report, and the latest sales figures for this month, or the phone number of a client you need to talk to.

The services include banking applications, online shopping and checking stock quotes. What we are talking about is extending enterprise applications to incorporate the mobile client, i.e. extending the office to include any location in which worker might be at home, at a conference, traveling, and so on. The following are some different WAP applications and their URLs.

- o BBC <http://www.bbco.uk/mobile>
- o Last Minute <http://mobile.lastminute.com/lmn/wap/wap.wml>
- o Football365.com <http://football365.com/>
- o Automart b.ttl?/w~ru\!totrad~rco.uk/
- o Yahoo <http://wap.yahoo.co.uk/>
- o The University of Sunderland <http://Lw~.sunderland.ac.uk/index.wml>
- o Sheffield Hallam University <http://www.shefon.com/s.l.wml>
- o University of Essex WAP site <http://wap.essex.ac.uk/>
- o The School of Law at the University of Northumbria <http://law-wap.unn.ac.uk>

1.4 Changing the Way We Look at the Net

With the advance of the Internet, e-commerce has now grown to enormous proportions; online banking, trading and shopping have proven to be such a success that the goal of business has become the provision of services that are available from *anywhere*.

On top of this, the number of mobile phones in the world is increasing every day at an astonishing speed, with analysts forecasting that there will be more than a billion mobile phones in use within the next five years (Gartner Group) and that over half of Internet

access will be though non PCs (Meta Group). The mobile phone has become a part of daily life for many people, and together with a watch; is the only electronic device that many people carry around everywhere with them, all day long.

Its time the Internet moved on from the PC. This doesn't mean the end of the PC; radio didn't kill the newspaper, TV didn't kill the radio, and the VCR didn't kill cinema. There's always room for more than one media. It simply means that there is more than one way of accessing information from the Internet, and the method you choose depends on who you are, where you are and what you want.

1.5 Philosophy

The Wireless Application Protocol takes a client server approach. It incorporates a relatively simple microbrowser into the mobile phone, requiring only limited resources on the mobile phone. This makes WAP suitable for thin clients and early smart phones. WAP puts the intelligence in the WAP Gateways whilst adding just a microbrowser to the mobile phones themselves. Microbrowser-based services and applications reside temporarily on servers, not permanently in phones. The Wireless Application Protocol is aimed at turning a mass-market mobile phone into a "network-based smartphone". As a representative from Openwave on the board of the WAP Forum commented "The philosophy behind Wireless Application Protocol's approach is to utilize as few resources as possible on the handheld device and compensate for the constraints of the device by enriching the functionality of the network". The Wireless Application Protocol is envisaged as a comprehensive and scaleable protocol designed for use with:

- Any mobile phone from those with a one line display to a smart phone.
- Any existing or planned wireless service such as the Short Message Service, Circuit Switched Data, Unstructured Supplementary Services Data (USSD) and General Packet Radio Service (GPRS). Indeed, the importance of WAP can be found in the fact that it provides an evolutionary path for application developers and network operators to offer their services on different network types, bearers and terminal capabilities. The design of the WAP standard separates the

application elements from the bearer being used. This helps in the migration of some applications from SMS or Circuit Switched Data to GPRS for example.

- Any mobile network standard such as Code Division Multiple Access (CDMA), Global System for Mobiles (GSM), or Universal Mobile Telephone System (UMTS). WAP has been designed to work with all cellular standards and is supported by major worldwide wireless leaders such as AT&T Wireless and NTT DoCoMo.
- Multiple input terminals such as keypads, keyboards, touch-screens and styluses.

1.6 Delivers an Appropriate User Experience Model

The WAP specification defines a powerful and functional user interface model that is appropriate for handheld devices. Users navigate through cards with up and down scroll keys instead of a mouse. Soft keys allow the user to perform specific operations appropriate to the application context, or select menu options. A traditional 12-key phone keypad is used to enter alphanumeric characters, including a full set of standard symbols. Navigation functions such as Back, Home, and Bookmark are also provided, in keeping with the standard browser model.

By using the existing Internet model as a starting point, this user interface provides familiar functionality for those accustomed with the Web. It also provides a user interface that is easy to learn and highly discoverable for the first time user. The microbrowser allows devices with larger screens and more features to automatically display more content, just as a traditional browser does on a PC when the browser window is expanded on screen.

1.7 Information Retrieval on MOBILE WIRELESS SYSTEMS- Issues

Providing Internet and WWW services on a wireless data network presents many challenges. Most of the technology developed for the Internet has been designed for desktop and larger computers supporting medium to high bandwidth connectivity over

generally reliable data networks. Mass-market, hand-held wireless devices present a more constrained computing environment compared to desktop computers. Because of fundamental limitations of power and form factor, mass-market handheld devices tend to have:

- Less powerful CPUs
- Less memory (ROM and RAM)
- Restricted power consumption
- Smaller displays
- Different input devices (e.g., a telephone keypad, voice input, etc.)

1.8 Summary

We are facing a new and exciting era. Telecommunications are spreading and the mobility concepts, once just related to the possibility of speaking to someone independently of their location, have changed to assume a wider and deeper meaning. People that ask for mobility demand access to personal data, wherever they are in the world and at any time. The same people also demand ease of use. The simpler and more user-friendly a technology is, the more change it has of becoming a winning technology. All these factors went into the design of a way to access the Internet and Internet-like services from a mobile device.

The Wireless Application Protocol (WAP) aims to become the standard for operators, device manufacturers, and application developers to bridge the gap between the Internet and the wireless network domain. The real power of WAP technologies is that it provides everyone with opportunities: device manufacturers, application developers and network operators will increase their revenues by adopting WAP, while the final users will obtain a whole new set of services that will increase their mobility.

2. ARCHITECTURE AND OPERATIONAL PRINCIPLE OF WAP

2.1 Overview

Traditionally, getting information from the Internet onto your PC involves sending an HTTP request for information on a server (the **origin** server), then receiving this information in the form of an HTTP response. However, if we throw a mobile device into the equation, like Figure 1:

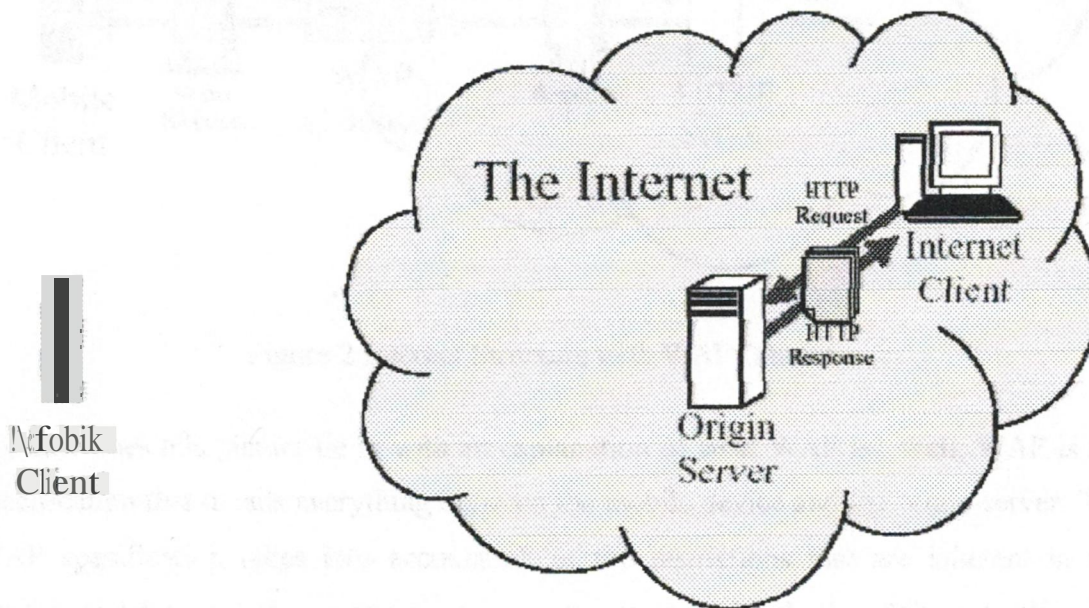


Figure 1 Internet Structure without WAP Gateway

It is immediately obvious that the mobile device is *not* part of the Internet, so we can't just drag the information we need off a server in the normal way.

What we need to do is to link the mobile device into the Internet. In order to do this, the WAP specification introduces the concept of a **WAP gateway**, which effectively acts as a proxy for the mobile device. This gateway can communicate with the mobile device using WAP protocols over existing wireless bearers. It can also communicate with origin servers on the Internet via HTTP or other Internet protocols.

Using the gateway, mobile devices can communicate with the Internet, placing requests for data via the gateway, which retrieves what is wanted and sends it back to the mobile device. The Figure 2, below, illustrates this.

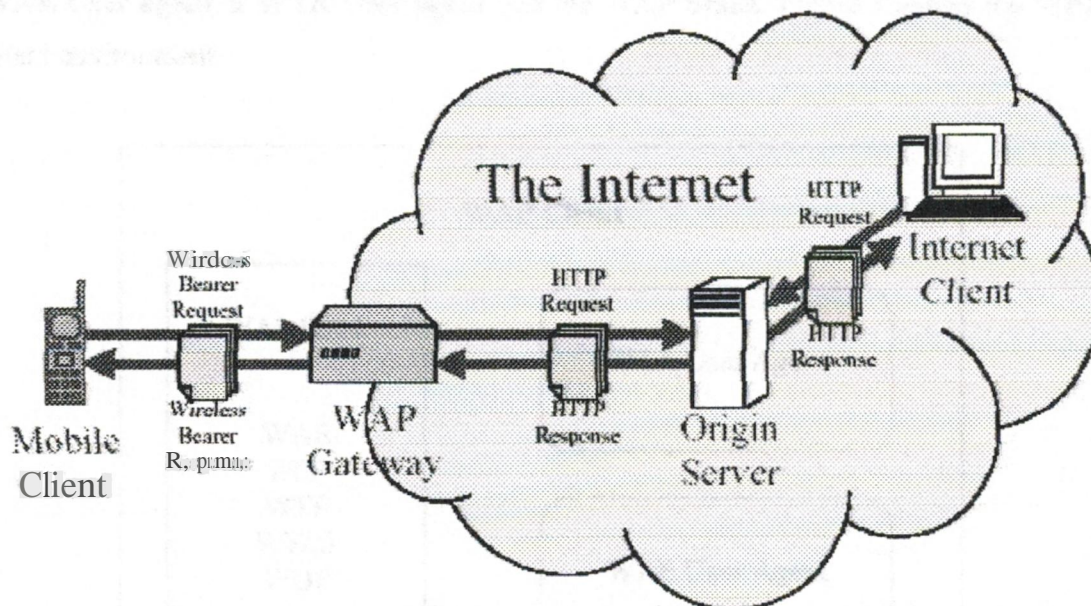


Figure 2 Internet Structure with WAP Gateway

So, how does this picture tie in with an explanation of what WAP is? Well, WAP is the specification that details everything between the mobile device and the origin server. The WAP specification takes into account all of the restrictions that are inherent in the system, and lays out the communication protocols at all levels. In addition to this, the WAP specification contains details of WML and WMLScript, which are the presentation and scripting languages that should be supported by WAP devices. We'll take a closer look at these later.

2.2 WAP Client

The WAP specifications leave a great deal of autonomy to the device manufacturers. There is no WAP specification indicating what the WAP device should look like or how it should present and display the content it receives from the Internet. These kinds of decisions, together with those relating to the user interface and the internal organization of phone functionality such as the phonebook, are left to the vendor.

The only requirement for a device to be WAP compliant is that it must implement a WAE User agent, a WTA User agent and the WAP Stack. Figure 3 shows the WAP client environment.

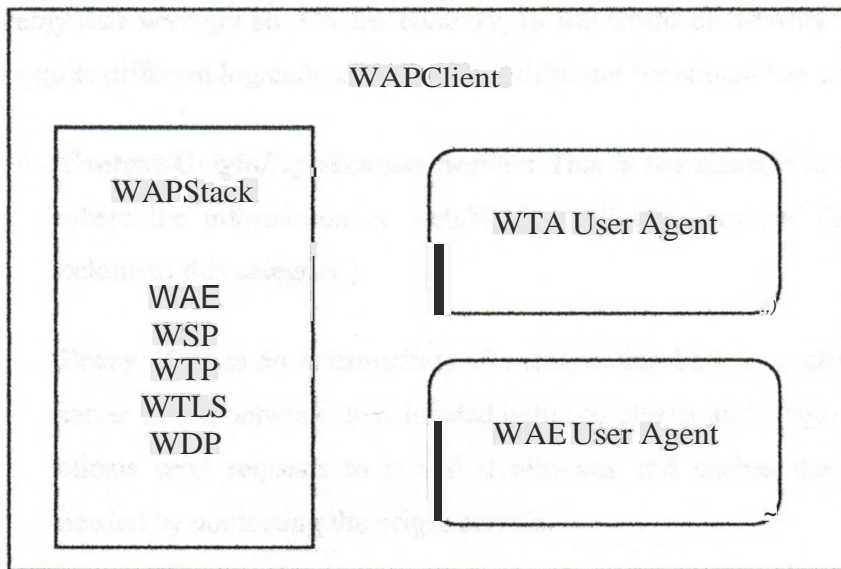


Figure 3: WAP Client

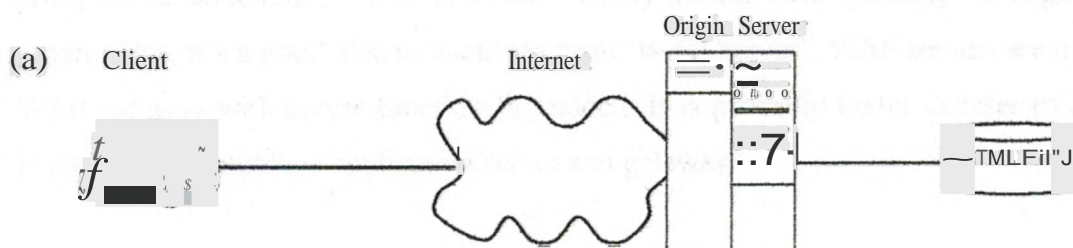
- The WAB User Agent (Wireless Application Environment User Agent) is the microbrowser that renders the content for display.
- The WTA User Agent (Wireless Telephony Applications User Agent) receives compiled WTA files from the WTA server and executes them. The WfA User Agent includes access to the interface to the phone, and network functionality such as number dialing, calls answering, phonebook organization, and message management and location indication services.
- The WAP Stack implementation allows the phone to connect to the WAP gateway using the WAP protocols. we'll be looking at all the WAP protocols in detail in this chapter.

2.3 WAP Proxy, WAP Gateway Or WAP Server?

When you read articles, surf the Internet or attend conferences, you will certainly hear about WAP gateways, servers and proxies. These three terms are often used interchangeably and wrongly so. On the contrary, in the world of networks these three elements are quite different logically and they have different functionalities as well:

- **Content/Origin/ Application Server:** This is the element in the network where the information or web/WAP application resides. (Web servers belong to this category.)
- **Proxy:** This is an intermediary element, acting both as a client and as a server in the network. It is located between clients and origin servers; the clients send requests to it and it retrieves and caches the information needed by contacting the origin servers.
- **Gateway:** This is an intermediary element usually used to connect two different types of network. It receives requests directly from the clients as if it actually were the origin server that the clients want to retrieve the information from. The clients are usually unaware that they are speaking to the gateway.

These three terms are illustrated in the diagram below where (a) an origin server has a direct connection to the Internet, (b) access to the Internet is through a proxy server, and (c) a gateway server lies between two different types of networks,



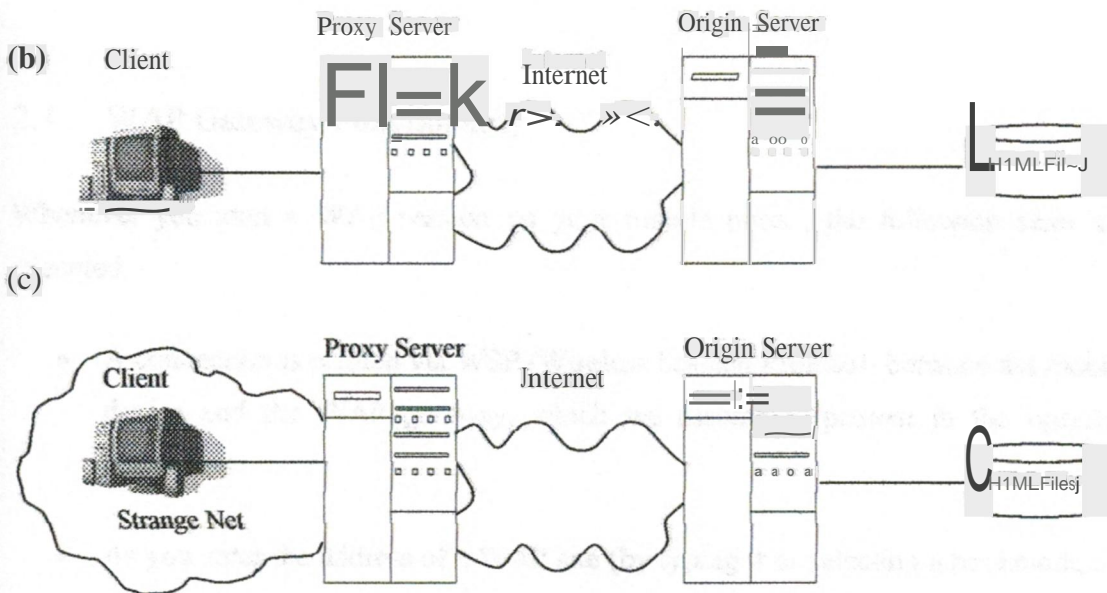


Figure 4 WAP Proxy/Gateway/Server

The element used in the WAP architecture, which we earlier defined as (and is commonly called) a WAP gateway, is actually a **proxy**. It is used to connect the wireless domain with the Internet one. However, it contains protocol gateway functionality plus encoder/decoder functionality.

The products at present on the market create the confusion of terms. What you are typically offered today when you search for such a WAP element is a mixture of all of the servers described above. It logically belongs to the proxy category but, as we have seen, has gateway functionality and in addition is equipped with server functionality. In other words it can run server-side scripts, and do all the things that a standard web server can do.

The rule to survive this confusion is generally to consider a WAP gateway and a WAP proxy as the same thing; I will try to consistently use the term 'gateway' throughout this report. Also, it's a good idea to avoid the term 'WAP Server'. WAP servers are usually a WAP gateway with server functionality added. It is probably better to refer to such an element as a "combined application server and gateway".

2.4 WAP Gateway Functionality

Whenever you start a WAP session on your mobile phone, the following steps are executed.

- A connection is created via WSP (Wireless Session Protocol) between the mobile device and the WAP gateway, which we assume is present in the operator network.
- As you enter the address of a WAP site (by typing it or selecting a bookmark, for example), the gateway is sent a request from the device's microbrowser using WSP, WSP is the WAP protocol in charge of starting and ending the connections from the mobile devices to the WAP gateway.
- The gateway translates the WSP request into an HTTP request and sends it to the appropriate origin server.
- The gateway translates and compresses the information and sends it back to the microbrowser in the mobile device.

The gateway part of the WAP proxy takes care of translating all the requests that are sent and received by the client using WSP to the protocol that the origin server is using (HTTP for example). This is illustrated in the Figure 4 below. The content provider sends its content using HTTP to the gateway. It then forwards all the content received to the WAP devices, using the WAP protocols:

Functionally speaking, the gateway operates to some extent in a similar way to the current Internet web browsers. When you try to access an FTP or Gopher site using your web browser, you are completely shielded from the protocols and requests that your browser uses to contact the site. As far as you are concerned, both FTP and Gopher sites use the same protocol to communicate with the browser as a normal web site, since the information that is displayed on your screen is in the same format as when you access an HTML page.

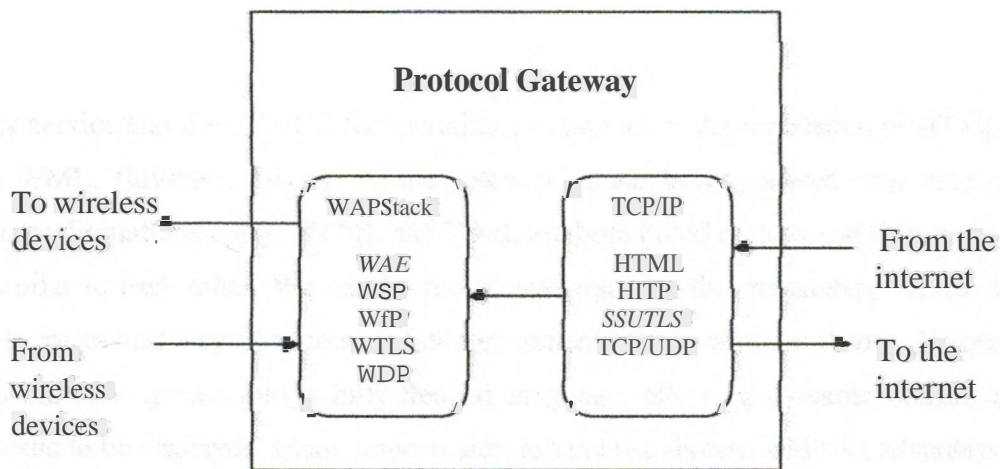


Figure 5 Protocol Gateway

The coder/decoder (CODEC) functionality within the gateway is used to convert the WML and WMLScript content going to and coming from the client into a form that is optimized for low bandwidth networks. This is illustrated in Figure 5.

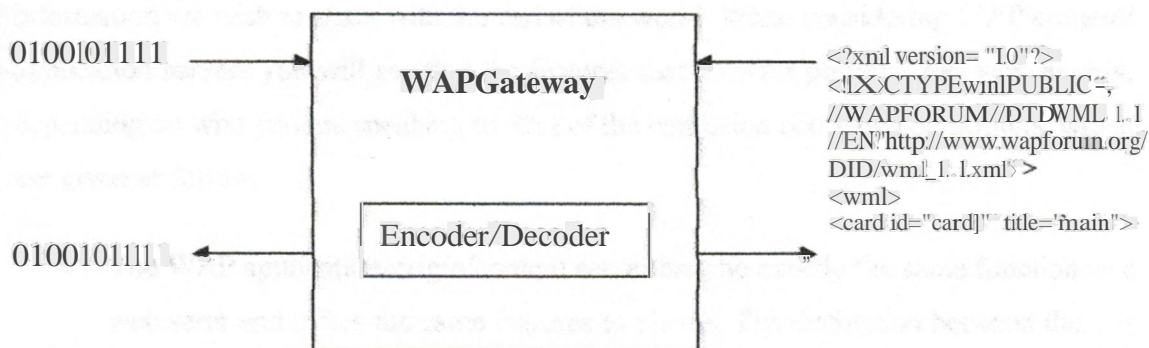


Figure 6 Wap Gateway

Translation of encrypted data takes place in the memory of the gateway. No unencrypted data is ever stored on a secondary storage medium since this would create crucial security problems.

Content belonging to a non-secure session is cached on the storage media of the gateway, reducing the processing time and the resources required when someone else requests the same content.

Another service that the CODEC functionality can provide is the translation of HTML or text to WML. However, this use of the gateway should be considered very carefully, since many limitations apply. If HTML and WML are both based on tags and they can look very similar to each other. We can be fooled into thinking that translating HTML into WML is the easiest way of accessing Internet content from a wireless device. However, HTML has now grown into a fully-fledged language, allowing dynamic content and multimedia to be displayed. Many internet sites around use frames, and take advantage of all the features of HTML and the use of multimedia such as sound, video and graphics. The result of the translation of such an HTML page into a WML one will therefore be quite poor.

2.5 WAP Application Server

While on the Internet a web server is the content provider - a computer hosting the information we wish to share with the rest of the world. When considering WAP content/application servers you will see that the features that a server provides can vary greatly, depending on who you are speaking to. Out of the confusion come two definitions, which are given as follow.

- The WAP application/origin/content server has the exactly the same function as a web server and offers the same features to clients. The distinction between them is only a logical one, since the two can coexist on the same physical device, and some servers can provide both functions using the same piece of software. The only difference lies, of course, in the content that they store and send back to the clients. While the web server supports files such as HTML, JavaScript, multimedia, and all types of images, the WAP application server stores WML, WMLScript and WBMP (Wireless Bitmap) image files.
- A WAP server is usually just a WAP application server with gateway functionality added. It will provide all the services a normal origin server provides, but it will also act as a WAP gateway.

The WAP application server may, of course, also host all the technologies used to provide dynamic content. As you will see later in third chapter, you can use XML in conjunction with XSLT, ASP, and Java servlets, to name just a few, to dynamically generate WML content in the same way that you use them to generate HTML content on a web server.

In order to enable a web server to host WAP applications, you merely need to add the MIME types for WAP files in the configuration settings of the server. MIME (Multipurpose Internet Mail Extensions) is a method used to convert and transmit files over the Internet. When transmitting the files, the server attaches a header to the file defining the type of data contained in the files. The receiving client then knows what the file type is and can deal with it appropriately. Most WAP browsers accept only WAP MIME types, and sending a file with the wrong type in the header will generate an error.

2.6 The WAP Internal Structure

Before we look at the details of how the WAP protocols are structured, let us first briefly examine the definitions of a protocol and a layer.

2.6.1 Protocols

As anyone who has done any international traveling knows, it is quite important when you travel to adapt your clothing and behavior to the place you are in. It is also important to speak a common language that allows others to understand what you are saying. The problem arises with telecommunication networks. There are many different devices, and networks, and to allow them to communicate with each other, you must provide them with a common language. Protocols are the answer to this problem. There are a lot of different kinds, from very simple ones, to very elaborate ones, but they all have the same property in common. They allow computers to communicate with each other.

"A protocol defines the type and the structure of messages that two devices have the use when they are communicating with each other."

2.6.2 Layers

Since the protocols are functionality and logically divided into different groups of functionality, they are also physical framed into layers, each one providing a specific service to the next layer. One layer may provide methods to send bits down a physical cable; another may supply methods to establish a connection. The protocol stack is the set of all the layers that compose the set of protocols.

2.6.3 Components of the WAP Architecture

The WAP architecture provides a scaleable and extensible environment for application development for mobile communication devices. This is achieved through a layered design of the entire protocol stack Figure 7. Each of the layers of the architecture is accessible by the layers above, as well as by other services and applications.

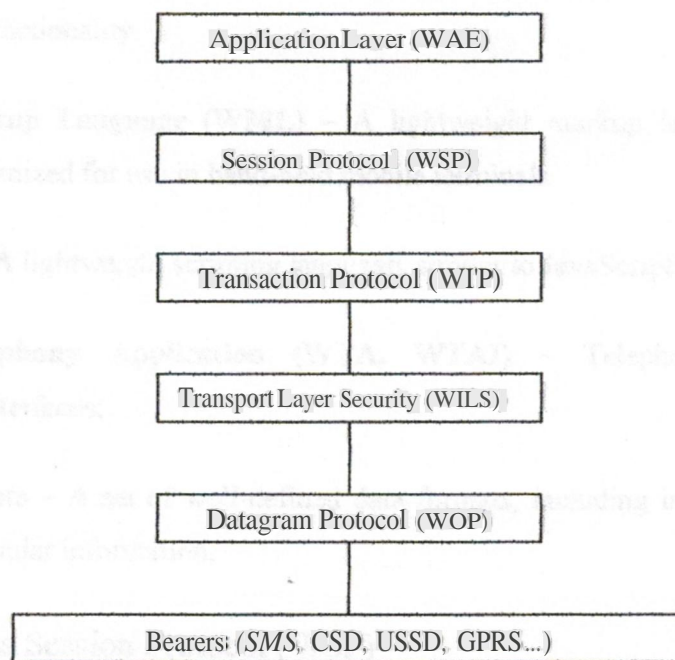


Figure 7 Components of WAP Protocol

The WAP layered architecture enables other services and applications to utilize the features of the WAP stack through a set of well-defined interfaces. External applications may access the session, transaction, security and transport layers directly. The following sections provide a description of the various elements of the protocol stack architecture.

2.6.4 Wireless Application Environment (WAE)

The Wireless Application Environment (WAE) is a general-purpose application environment based on a combination of World Wide Web (WWW) and Mobile Telephony technologies. The primary objective of the WAE effort is to establish an interoperable environment that will allow operators and service providers to build applications and services that can reach a wide variety of different wireless platforms in an efficient and useful manner. WAE includes a micro-browser environment containing the following functionality:

Wireless Markup Language (WML) - A lightweight markup language, similar to HTML, but optimized for use in hand-held mobile terminals.

WMLScript- A lightweight scripting language, similar to JavaScript™.

Wireless Telephony Application (WTA, WTAI) - Telephony services and programming interfaces;

Content Formats - A set of well-defined data formats, including images, phone book records and calendar information.

2.6.5 Wireless Session Protocol (WSP)

The Wireless Session Protocol enables services to exchange data between application in an organized way. It includes two different protocols:

- **Connection oriented session services** - operates over the Wireless Transaction Protocol (WTP)

- Connectionless-1 session services - operates directly over the Wireless Transport layer(WDP)

Session services are those functionalities that help to set up a connection between a client and a server. A service is delivered through the use of the primitives it provides. Primitives are defined messages that a client sends to the server to request a service facility. In WSP, for example, one of the primitives is S-Connect, with which we can request the creation of a connection with the server.

The Connection-oriented session service provides facilities used to manage a session and to transmit reliable data between a client and a server. The session created can then be suspended and resumed later if the transmission of data becomes impossible. Also, once the push technology takes off, unsolicited data can be pushed from the server to the client in a confirmed or unconfirmed way. In Confirmed push the server is notified upon reception of the data by the client, in Unconfirmed push the server is not notified of the reception of the pushed data. Most of the facilities provided by the connection-oriented session service are confirmed, meaning that the client can send Request primitives and receive Confirm primitives and the server can send Response primitives and receive Indication primitives.

The Connectionless session service provides only non-confirmed services; in particular only unreliable method invocation (asking the server to execute an operation and return a result) and unconfirmed push are available. In this case only use the Request primitive and servers are only able to use the Indication primitive.

To start a new session, the client invokes a WSP primitive that provides some parameters, such as the server address, the client address and client headers. These can be linked to HTTP client headers and can, for example, be used by the server to retrieve the type of user agent within the WAP client (which might be both the version and type of the browser). This is useful when we want to format the output differently, depending on the client's device type. For example, one phone may have a 20 character wide display; another may have a 16 character wide display.

In some respects WSP is basically a binary form of HTTP. As previously mentioned, the binary transmission of data between a server and a client is an essential adaptation made for the narrow bandwidth mobile network. WSP supplies all the methods defined by HTTP/1.1 and allows capability negotiation to gain a full compatibility with HTTP/1.1.

2.6.6 Wireless Transaction Protocol (WTP)

The Wireless Transaction Protocol (WTP) runs on top of a datagram service and provides as a light-weight transaction-oriented protocol that is suitable for implementation in "thin" clients (mobile stations). WTP operates efficiently over secure or non-secure wireless datagram networks and provides the following features:

Three classes of transaction service:

- Unreliable one-way requests,
- Reliable one-way requests, and
- Reliable two-way request-reply transactions.

2.6.6.1 Unreliable Request

The initiator (in this case a content server) sends a request to the responder (the user agent) who does not reply with an acknowledgment. The transaction has no state and terminates once the invoked message is sent. This is shown in Figure 8.

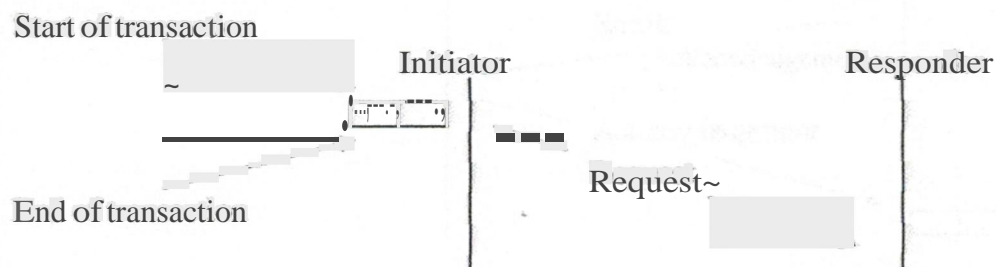


Figure 8 Unreliable Request

2.6.6.2 Reliable Request

The initiator sends a request to the responder who acknowledges it. The responder stores the transaction state information for some time, so that it can re-transmit the

acknowledgement message if the server requests it again. The transaction ends at the initiator when the initiator receives the acknowledgement message. This shows in Figure 9.

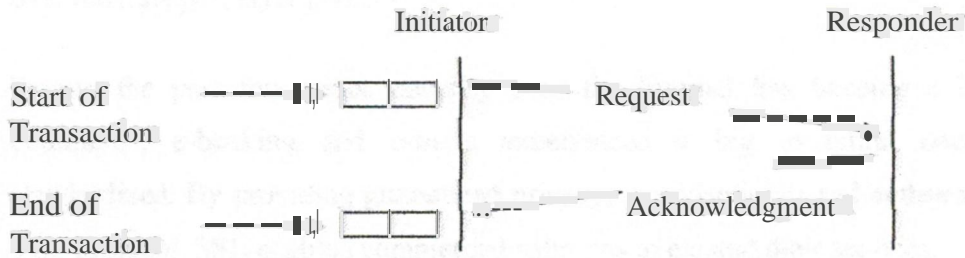


Figure 9 Reliable Request

2.6.6.3 Reliable Request with One Result Message

The initiator sends a request to the responder who implicitly acknowledges it with a result message. The initiator then acknowledges the result message, maintaining the transaction state information for some time after the acknowledgment has been sent, in case it fails to arrive. The transaction ends at the responder when it receives the acknowledgement message. This is shown in Figure 10.

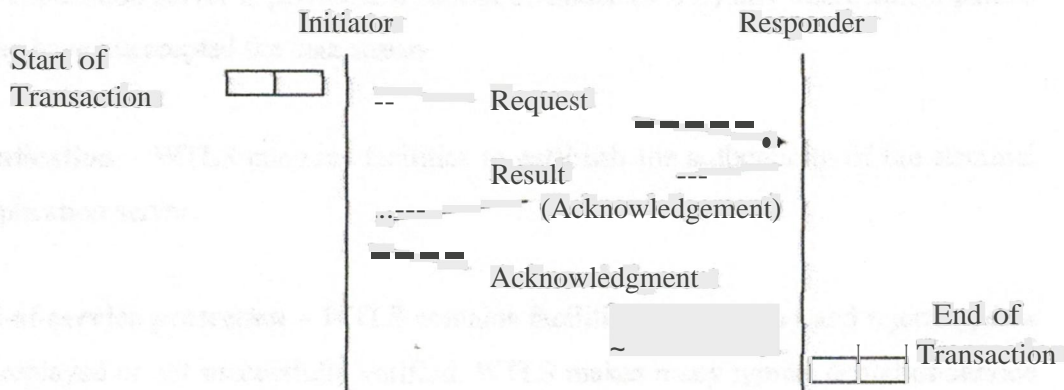


Figure 10 Reliable Request with One Result Message

2.6.7 Wireless Transport Layer Security (WTLS)

WTLS is the solution to the security issue, provided by WAP Forum. WTLS is an optional layer and is based on TLS (Transport Layer Security) v1.0, which in turn is

based on SSL (Secure Sockets Layer) v3.0, which is an Internet protocol. WTLS operates over the transport layer (WDP).

During the past few years, security over the Internet has become a big issue. E-commerce, e-banking and e-trade experienced a big evolution once SSL was standardized. By providing guaranteed privacy, confidentiality and authenticity over the TCP protocol, SSL enabled commercial solutions to expand their services.

WTLS is a security protocol based upon the industry-standard Transport Layer Security (TLS) protocol, formerly known as Secure Sockets Layer (SSL). WTLS is intended for use with the WAP transport protocols and has been optimized for use over narrow-band communication channels. WTLS provides the following features:

Data integrity - WTLS contains facilities to ensure that data sent between the terminal and an application server is unchanged and uncorrupted.

Privacy - WTLS contains facilities to ensure that data transmitted between the terminal and an application server is private and cannot be understood by any intermediate parties that may have intercepted the data stream.

Authentication - WTLS contains facilities to establish the authenticity of the terminal and application server.

Denial-of-service protection - WTLS contains facilities for detecting and rejecting data that is replayed or not successfully verified. WTLS makes many typical denial-of-service attacks harder to accomplish and protects the upper protocol layers.

WTLS may also be used for secure communication between terminals, e.g. for authentication of electronic business card exchange. Applications are able to selectively enable or disable WTLS features depending on their security requirements and the characteristics of the underlying network (e.g., privacy may be disabled on networks already providing this service at a lower layer).

2.6.8 Wireless Datagram Protocol (WDP)

The Transport layer protocol in the WAP architecture is referred to as the Wireless Datagram Protocol (WDP). The WDP layer operates above the data capable bearer services supported by the various network types. As a general transport service, WDP offers a consistent service to the upper layer protocols of WAP and communicate transparently over one of the available bearer services. Since the WDP protocols provide a common interface to the upper layer protocols the Security, Session and Application layers are able to function independently of the underlying wireless network. This is accomplished by adapting the transport layer to specific features of the underlying bearer. By keeping the transport layer interface and the basic features consistent, global interoperability can be achieved using mediating gateways.

2.6.9 Bearers

The WAP protocols are designed to operate over a variety of different bearer services, including short message, circuit-switched data, and packet data. The bearers offer differing levels of quality of service with respect to throughput, error rate, and delays. The WAP protocols are designed to compensate for or tolerate these varying levels of service. Since the WDP layer provides the convergence between the bearer service and the rest of the WAP stack, the WDP specification [WDP] lists the bearers that are supported and the techniques used to allow WAP protocols to run over each bearer. The list of supported bearers will change over time with new bearers being added as the wireless market evolves.

2.6.9.1 Short Message Service

Given its limited length of 160 characters per short message, SMS may not be an adequate bearer for WAP because of the weight protocol of the protocol. The overhead of the WAP protocol that would be required to be transmitted in an SMS message would mean that even for the simplest of transactions several SMS messages may in fact have to be sent. This means that using SMS as a bearer can be a time consuming and expensive exercise.

2.6.9.2 Circuit Switched Data

Most WAP based services use CSD as the underlying bearer. Since CSD historically had relatively few users currently, WAP has kicked started usage of and traffic generated by this bearer. However, CSD lacks immediacy- a dial up connection taking about 10 seconds is required to connect the WAP client to the WAP Gateway, and this is the best case scenario when there is an complete end to end digital call- in the case of the need for analog modem handshaking (because the WAP phone does not support V.11.0 the digital protocol, or the WAP Gateway does not have a digital direct connection such as ISDN into the mobile network), the connect time is increased to about 30 seconds.

2.6.9.3 Unstructured Supplementary Services Data

Unstructured Supplementary Services Data (USSD) is a means of transmitting information or instructions over a GSM network. USSD has some similarities with SMS since both use the GSM network's signaling path. Unlike SMS, USSD is not a store and forward service and is session-oriented such that when a user accesses a USSD service, a session is established and the radio connection stays open until the user, application, or time out releases it. This has more in common with Circuit Switched Data than SMS. USSD text messages can be up to 182 characters in length. USSD has some advantages and disadvantages as a tool for deploying services on mobile networks:

- Turnaround response times for interactive applications are shorter for USSD than SMS because of the session-based feature of USSD, and because it is NOT a store and forward service. According to Nokia, USSD can be up to seven times faster than SMS to carry out the same two-way transaction.
- Users do not need to access any particular phone menu to access services with USSD- they can enter the Unstructured Supplementary Services Data (USSD) command direct from the initial mobile phone screen.
- Because USSD commands are routed back to the home mobile network's Home Location Register (HLR), services based on USSD work just as well and in exactly the same way when users are roaming.

- Unstructured Supplementary Services Data (USSD) works on all existing GSM mobile phones.
- Both SIM Application Toolkit and the Wireless Application Protocol support USSD.
- USSD Stage 2 has been incorporated into the GSM standard. Whereas USSD was previously a one way bearer useful for administrative purposes such as service access, Stage 2 is more advanced and interactive. By sending in a USSD2 command, the user can receive an information services menu. As such, USSD Stage 2 provides WAP-like features on EXISTING phones.
- USSD strings are typically complicated for the user to remember, involving the use of the "*" and "#" characters to denote the start and finish of the USSD string. However, USSD strings for regularly used services can be stored in the phonebook, reducing the need to remember and reenter them. As such, USSD could be an ideal bearer for some WAP applications on GSM networks.

2.6.9.4 General Packet Radio Service

The General Packet Radio Service (GPRS) is a new packet-based bearer that has been introduced on many GSM and TDMA mobile networks from the year 2000 onwards. It is an exciting new bearer because it is immediate (there is no dial up connection), relatively fast (up to 172 kbps in the very best theoretical extreme) and supports virtual connectivity, allowing relevant information to be sent from the network as and when it is generated.

Since most new WAP enabled phones will also support the General Packet Radio Service, WAP and GPRS could well be synergistic and be used widely together. For the kinds of interactive, menu based information exchanges that WAP anticipates, Circuit Switched Data is not immediate enough because of the need to set up a call. SMS on the other hand is immediate but is ALWAYS store and forward, such that even when a subscriber has just requested information from their microbrowser, the SMS Center

resources are used in the information transfer. As such, GPRS and WAP are ideal bearers for each other.

Additionally, WAP incorporates two different connection modes- WSP connection mode or WSP connectionless protocol. This is very similar to the two GPRS Point to Point services- connection oriented and connection less.

WAP certainly will be important for the development of GPRS-based applications. Because the bearer level is separated from the application layer in the WAP protocol stack, WAP provides the ideal and defined and standardized means to port the same application to different bearers. As such, many application developers will use WAP to facilitate the migration of their applications across bearers once GPRS based WAP protocols are supported.

2.7 Other Services and Applications

The WAP layered architecture enables other services and applications to utilize the features of the WAP stack through a set of well-defined interfaces. External applications may access the session, transaction, security and transport layers directly. This allows the WAP stack to be used for applications and services not currently specified by WAP, but deemed to be valuable for the wireless market. For example, applications, such as electronic mail, calendar, and phone book, notepad, and electronic commerce, or services, such as white and yellow pages, may be developed to use the WAP protocols.

2.8 Summary

WAP is an open specification, meaning that every member of the WAP forum can contribute to its design. The WAP architecture is derived from that of the Internet, with clients and servers communicating via a new element - the WAP gateway. It has a key role in the WAP architecture, acting as a translator between WAP devices and web server, since the two of them are placed in different networks and therefore use different protocols.

We have seen how the different layers composing the WAP stack are related to each other, and how they relate to the TCP/IP stack used in the Internet world. We have also clarified the concepts of the WAP gateway, the WAP proxy, and WAP server.

When you are ready to start developing WAP applications, you will need to choose a WAP browser and WAP development environment. In this chapter, we will discuss the available WAP browsers and WAP development environments. We will also discuss the WAP development process and the WAP development tools.

2.2 Available Software Products

There are currently a wide variety of different products available for the development and testing of WAP applications. However, the market is changing very quickly and many products being developed at the moment. Some of the products on the market are listed below, but are not necessarily available on the internet. Downloadable links are provided where available.

2.2.1 WAP Browsers

The WAP browser runs on the WAP device and displays the content that is received. It also provides the user interface and the user can navigate the WAP application. The browser may be built into the device or installed on a separate device. The browser can be built into the device or installed on a separate device. The browser can be built into the device or installed on a separate device. The browser can be built into the device or installed on a separate device. The browser can be built into the device or installed on a separate device.

Some of the available WAP browsers are listed below.

Browser	Description	Available From
WAP Browser	Freely available browser that runs on WAP devices.	http://www.wapforum.org

3. SOFTWARE, TOOLS AND CONFIGURATION

3.1 Requirements

Before going directly towards the development and writing the code we have to think about that through which procedure we will test our application. For this we must have a mobile and WAP connection which will off course be very expensive just for testing the application on each and every step. For this I searched for some software products, and explore them that which will be the best for application testing. The one I found the best I will tell you later in this chapter, first I wanted to tell you about the available software products in the market for WAP development and testing.

3.2 Available Software Products

There are currently a wide variety of different products available that facilitate the development and hosting of a WAP application. However, the market is changing very quickly and more projects are being developed all the time. Some are not distributable for legal reasons, but most are freely available on the internet, downloadable from developer sites.

3.3 WAP Browsers:

The WAP browser runs in the WAP device and displays the content that it receives. It also provides the front-end through which the user can navigate the WAP application. The browser may be built into the phone or mobile device, or into the SIM card the device contains. WAP browsers are also available which will run on PC's directly or through a web browser by means of a plug-in. often a PC WAP browser is included in the downloadable SOK (Software Development Kit) available from various companies and it can be an important tool in testing the software, particularly it emulates a real device.

Shown below is a summary of some of the WAP browsers currently available:

Browser	Description	Available from
WinWap	Freely available browser that runs	http://www.slobtrot.com

Windows PCs.

Nokia Several browsers are available with <http://www.nokia.com> the Nokia toolkit, which is covered in more detail later in this chapter.

UP.Browser Available with the Phone.com <http://updev.phone.com> Toolkit

GeIon.net At this site, a WAP browser is run <http://www.gelon.net> on-line within the web browser on your PC. Although this isn't yet a perfect browser it is worth investing.

3.4 Software

The software I used for developing the University WAP application, and which is the best in my opinion is the Nokia Toolkit 3.1. Nokia Mobile Internet Toolkit, Version 3.1, supports WAP standards, authored by the WAP Forum, as well as other specifications authored by other organizations.

The Nokia Mobile Internet Toolkit is an application development and testing environment for developers of mobile Internet content. It provides tools for creating mobile Internet services and includes the following features and components:

- Nokia Mobile Browser device simulator on which to display content
- WML and WMLScript encoders
- WML, WMLScript, WBMP, Push, Multipart Content, XHTML, CSS, and MMS editors
- WAP Protocol Stack and file access modules
- Debugging views
- WAP Server Simulator, a WAP Gateway for local Toolkit use only.
- Nokia SoftID, a WIM card simulation, for developing security applications; as well as support for an installed hardware WIM device.

- Practical WML and XHTML Mobile Profile example applications and source code.
- User documentation in Adobe PDF format and context-sensitive online Help (through the F1 key).

The Toolkit is available as the downloadable, self-extracting executable file. It contains the Basic Toolkit, Server Simulator, and the NMB device simulator. You can obtain the most recent version of the Nokia Mobile Internet Toolkit at the Nokia web site <http://www.forum.nokia.com/wapforum/main/toolkit...>

Also available for download from the above web site are a number of other, optional Nokia device simulators. Nokia plans to make additional device simulators available here as they are developed. You can install and uninstall the optional device simulators independently of the Toolkit itself; however, Toolkit must already be installed before you install a simulator.

3.5 Tools and Languages

It is very important that you also choose the best tools for your development. The tools which I have used for the development are as follow:

- Microsoft Visual Studio 6.0
- Nokia Toolkit version 3.1
- Nokia 6590 simulator
- Nokia 8310 simulator
- Nokia 7110 simulator
- Microsoft Access 2002
- ITS (Internet Information Services) version 5.1

The languages used for the development are as follow:

- WML (Wireless Markup Language)
- ASP
- SQL

3.6 Configuring the Nokia Toolkit with IIS

IIS 5.1 is provided as standard with Windows XP and IIS 5.0 with Windows 2000.

After installing IIS 5.1 make a folder in which you will save your files, and put this folder in the C:\inetpub\wwwroot\ folder. Whenever you will call the main file the IIS will pick the file from this folder. To run your application correctly you have to define the correct MIME (Multipurpose Internet Mail Extension) types in IIS for WAP.

In order to configure the MIME types for IIS, we need to use the Internet Information Services snap-in for the MMC (Microsoft Management Console). You can open this from the Start menu under Administrative Tools in the Programs menu, or simply from the Control Panel. The name of the machine will appear, double click the machine name then double click the web sites folder and then double click the default web site, you will see your folder in the tree. In my case the folder name was WML which is shown in Figure 11.

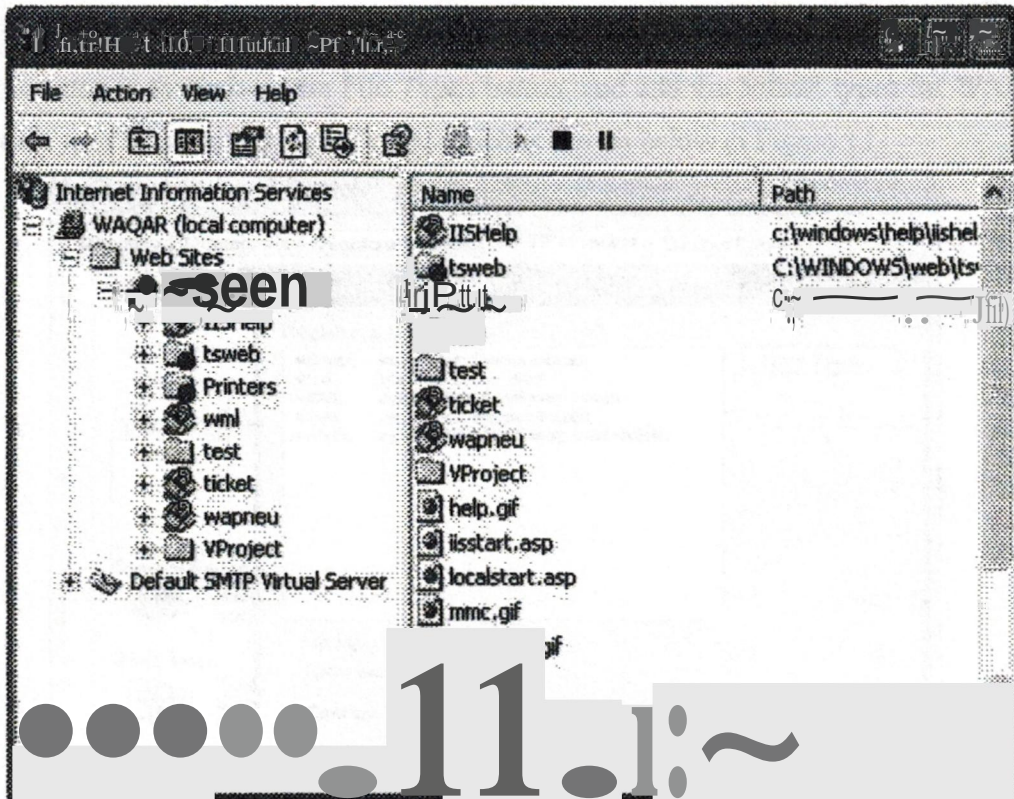


Figure 11

The next step is that right clicks on your saved folder and selects the properties from the pop up menu. You will see the following screen which is shown in Figure 12.

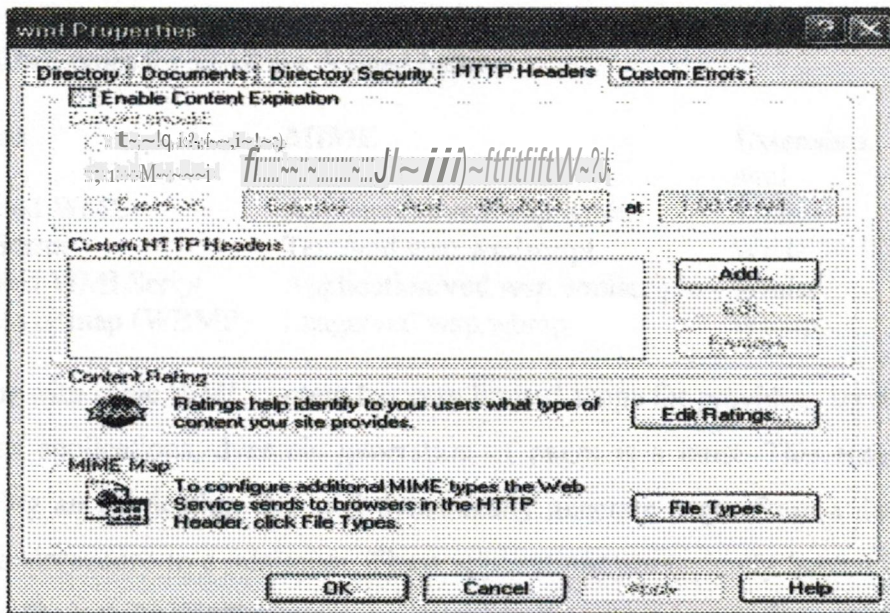


Figure 12

The next step is to click on the File Types button, and add the MIME types for WAP in the File Types by selecting New Types, which is shown below in Figure 13

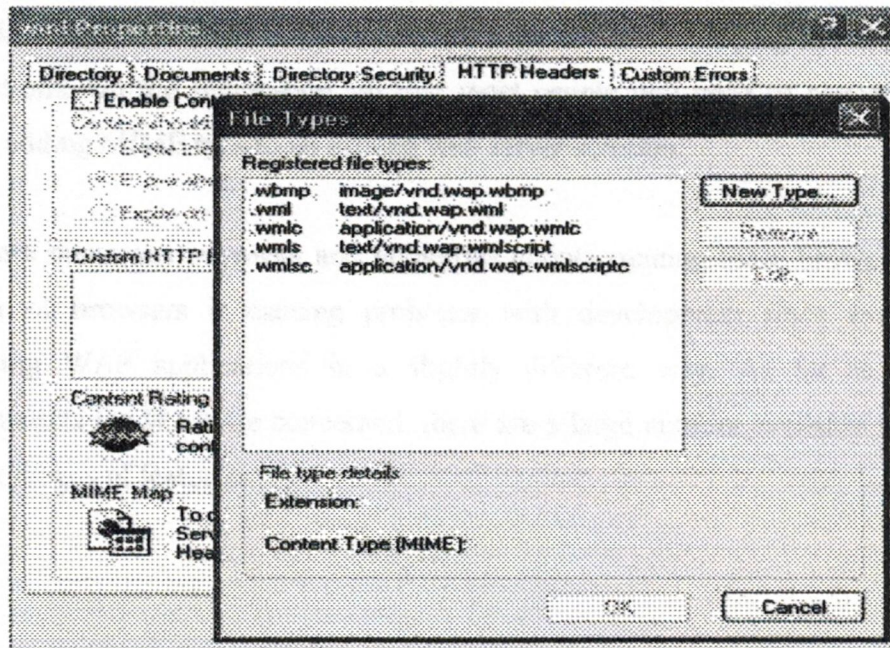


Figure 13

Of course, the most important part of a WAP application is where and how it is going to be hosted. This is very easy to do on a standard web server. All that you will need to do is add the following MIME types to those that the web server knows about. MIME type is a specification for the format of data that can be sent over the internet.

The MIME types for WAP are defined below:

Content	MIME	Extension
WML	text/vnd.wap.wml	wml
Compiled WML	Application/vnd.wap.wmlc	Wmlc
WMLScript	Text/vnd.wap.wmlscript	Wmls
Compiled WMLScript	AppJication/vnd.wap.wmlscripte	Wmlsc
Wireless bitmap (WBMP)	Image/vnd.wap.wbmp	Wbmp

Now, as with static WML content has very limited scope for providing services. For more complex applications, dynamic generation of pages is a must. This essentially means deploying an application that will dynamically generate pages from a database, which keeps maintenance to a minimum. These applications are typically hosted on application servers. To include WAP support, once again, all you need to do is to configure them to use the above MIME types.

3.7 Summary

There is a large amount of software available for use in developing and deploying WAP applications. On the server-side, all that most people will need to concern themselves with is adding MIME types to an existing web server solution.

There are numerous browsers and numerous clients running these browsers. The large number of browsers is causing problems with development since every device is displaying WAP applications in a slightly different way. As far as development environments for WAP are concerned, there are a large number available and they have varying ranges of features.

4. DEVELOPMENT WAP APPLICATION FOR THE UNIVERSITY

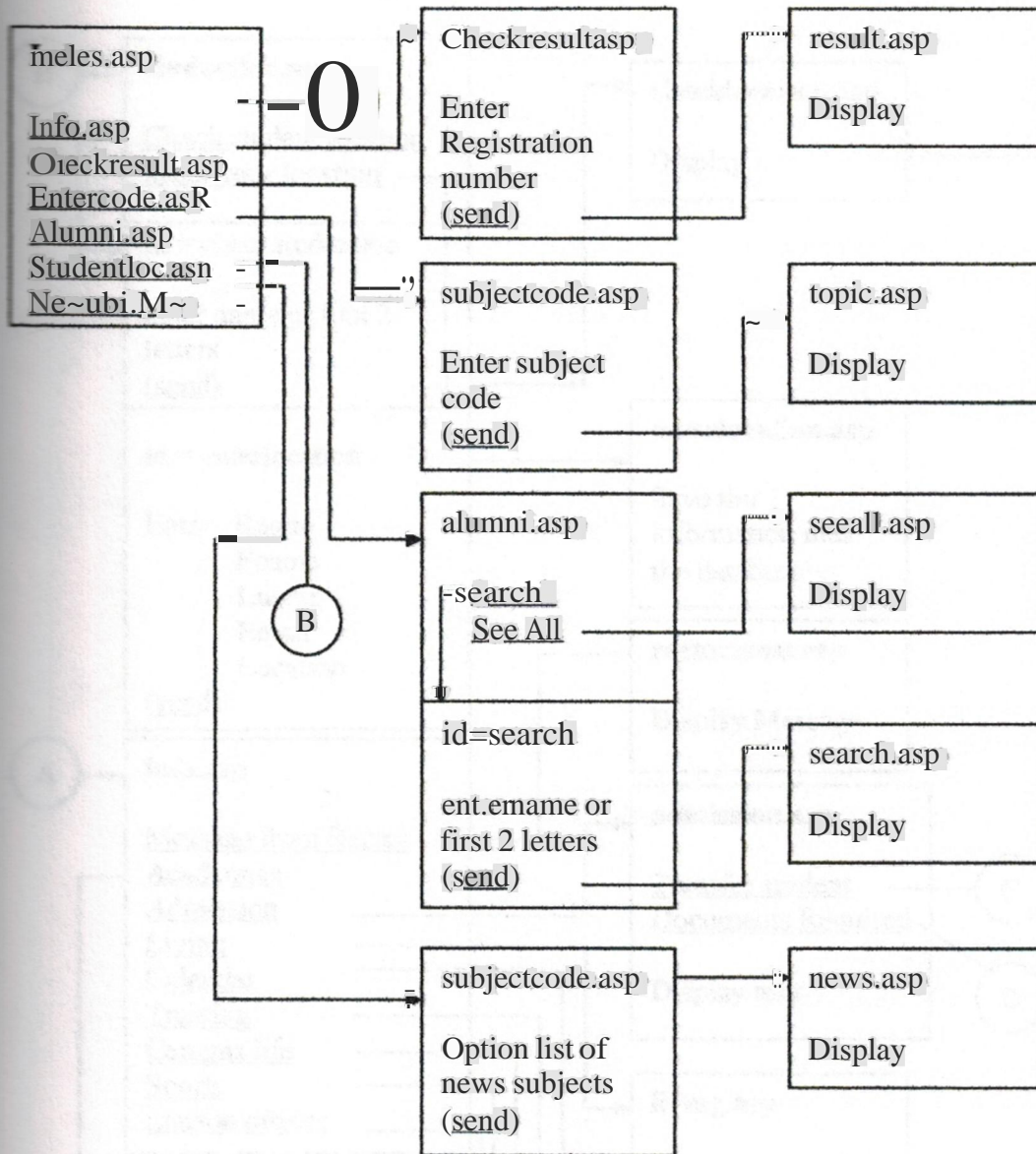
In this chapter each and every requirement and steps for the development of the University WAP application are defined. All the things are written in this manner that if some one wants to work on any WAP application he/she can get a great help from this report. This chapter is defined in very simple way so that one working on a WAP application could understand easily that how the task was completed.

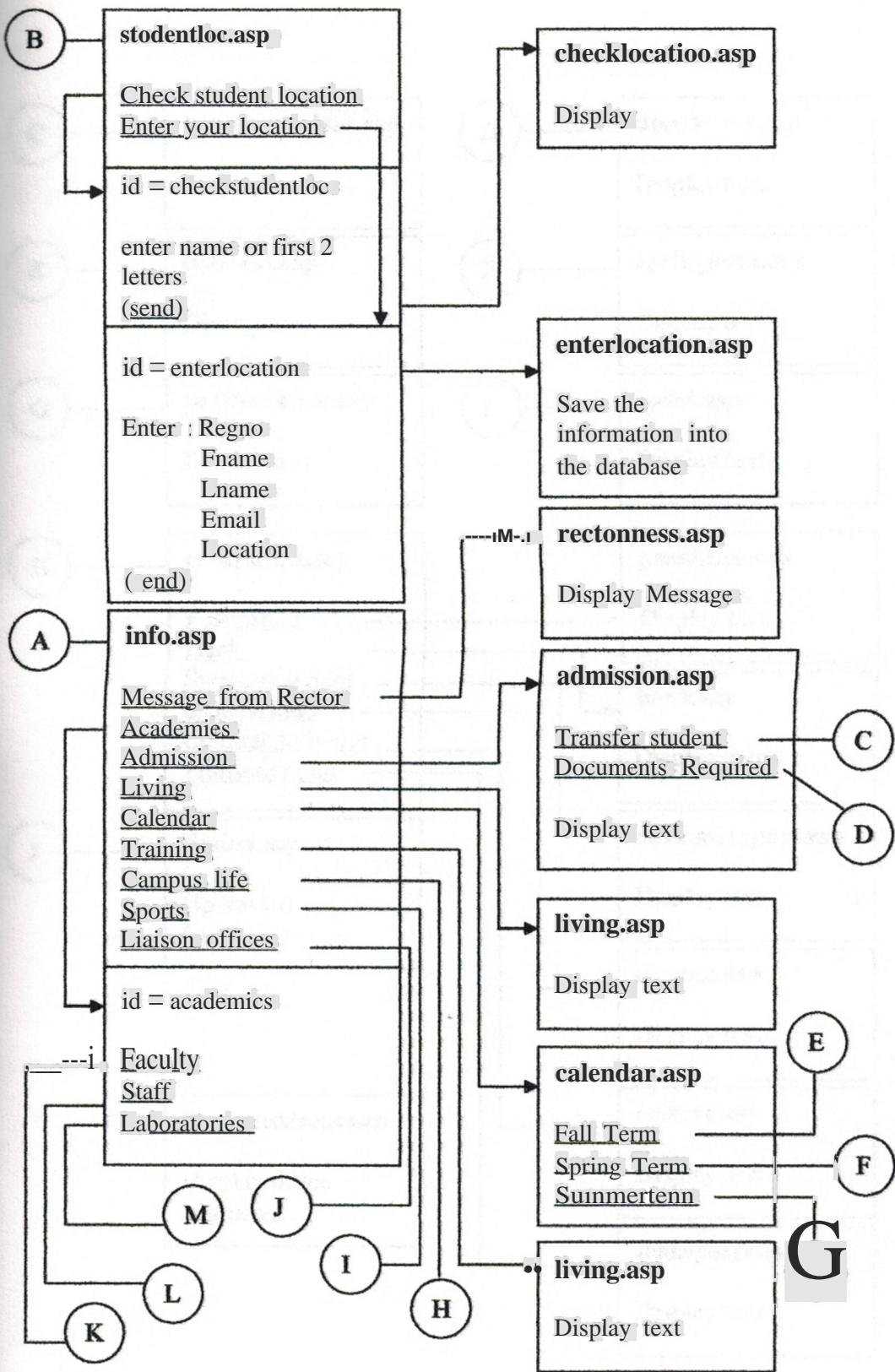
4.1 Design and Development of the Application

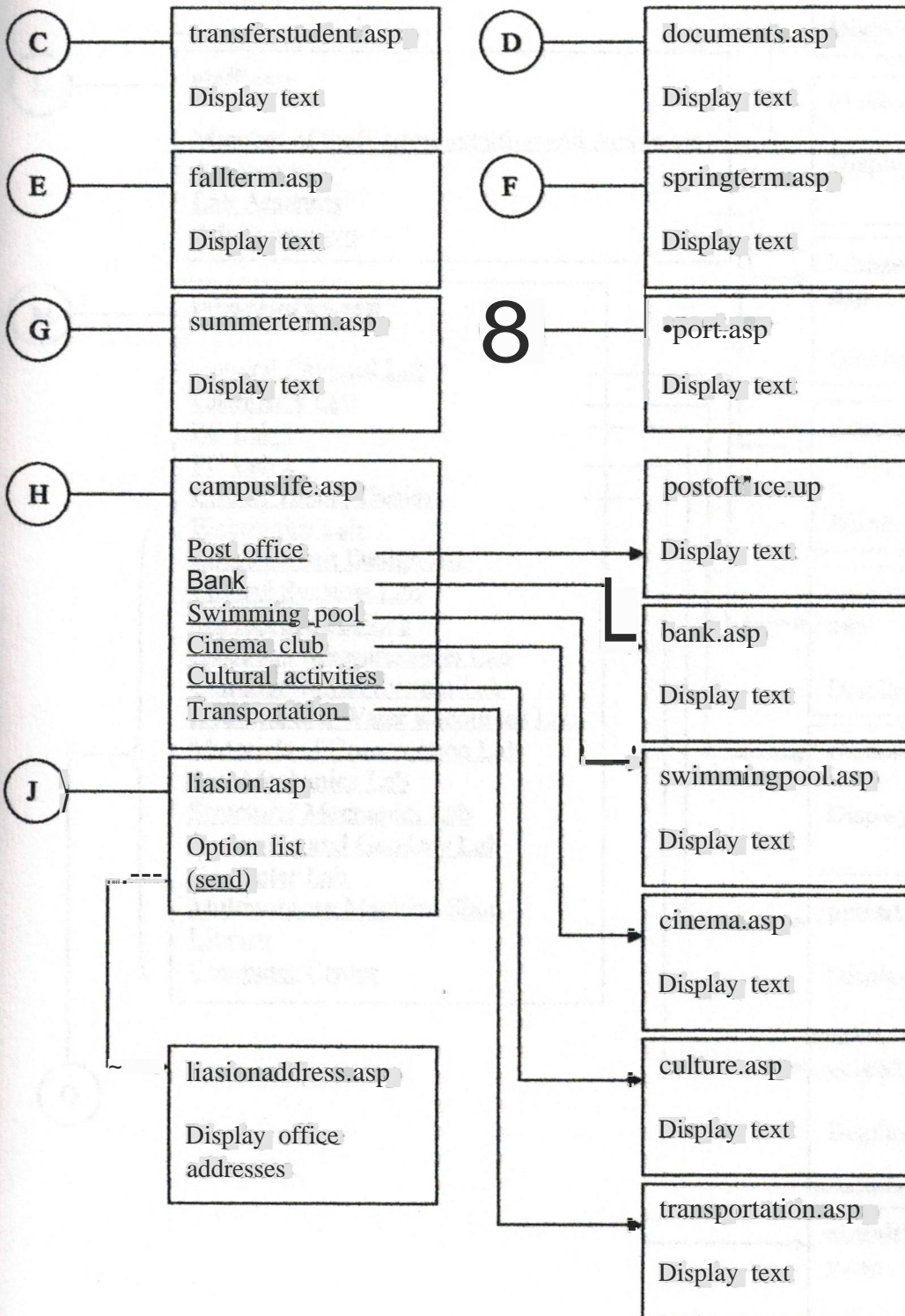
The design process is very important in any application development. Before going towards the coding of the application we must design the application on a paper, and must define each and every step that what the application will look like. In this application there are two designs, one the application design and the second is the database design. All the information is stored in the database.

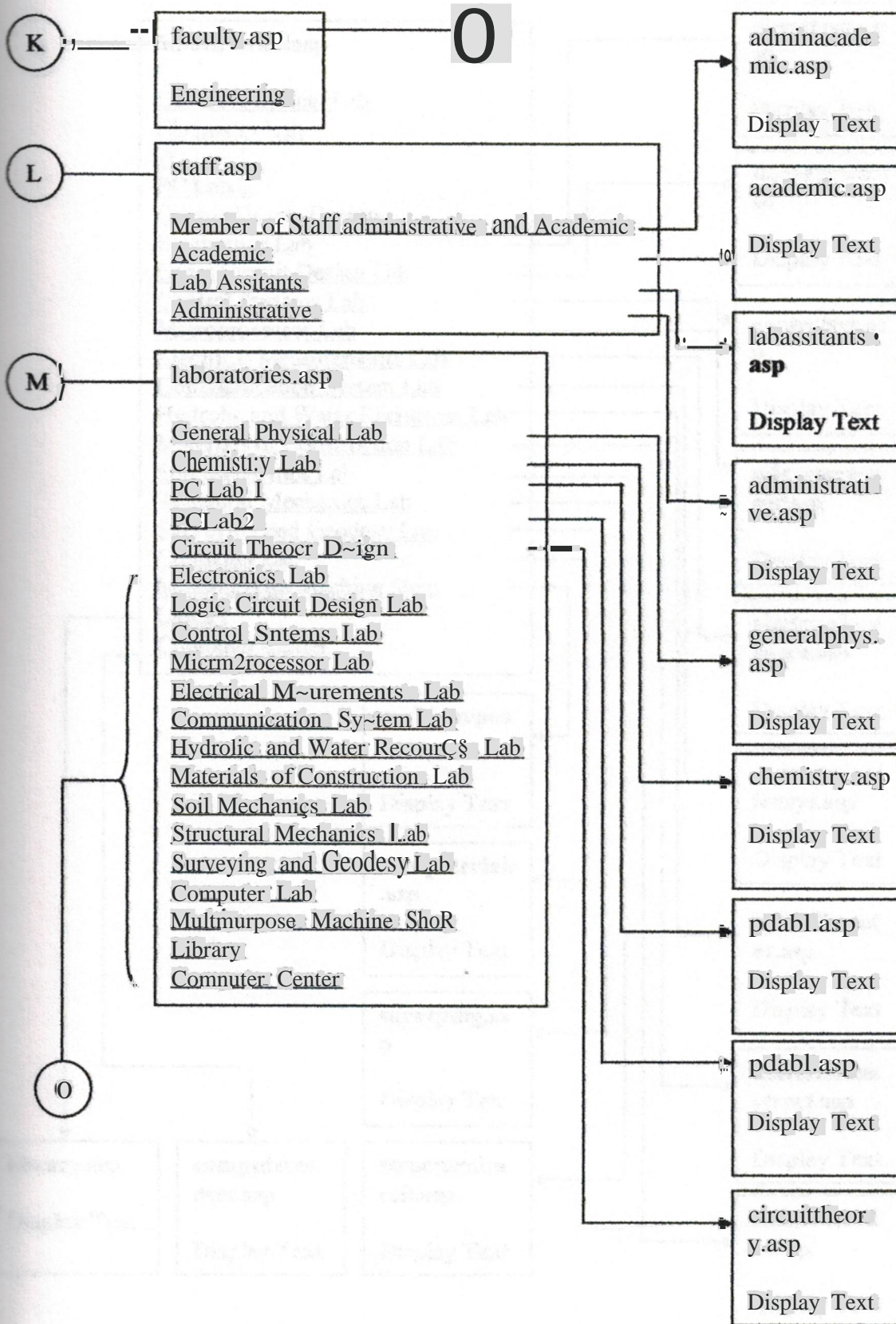
4.2 Design of the Application

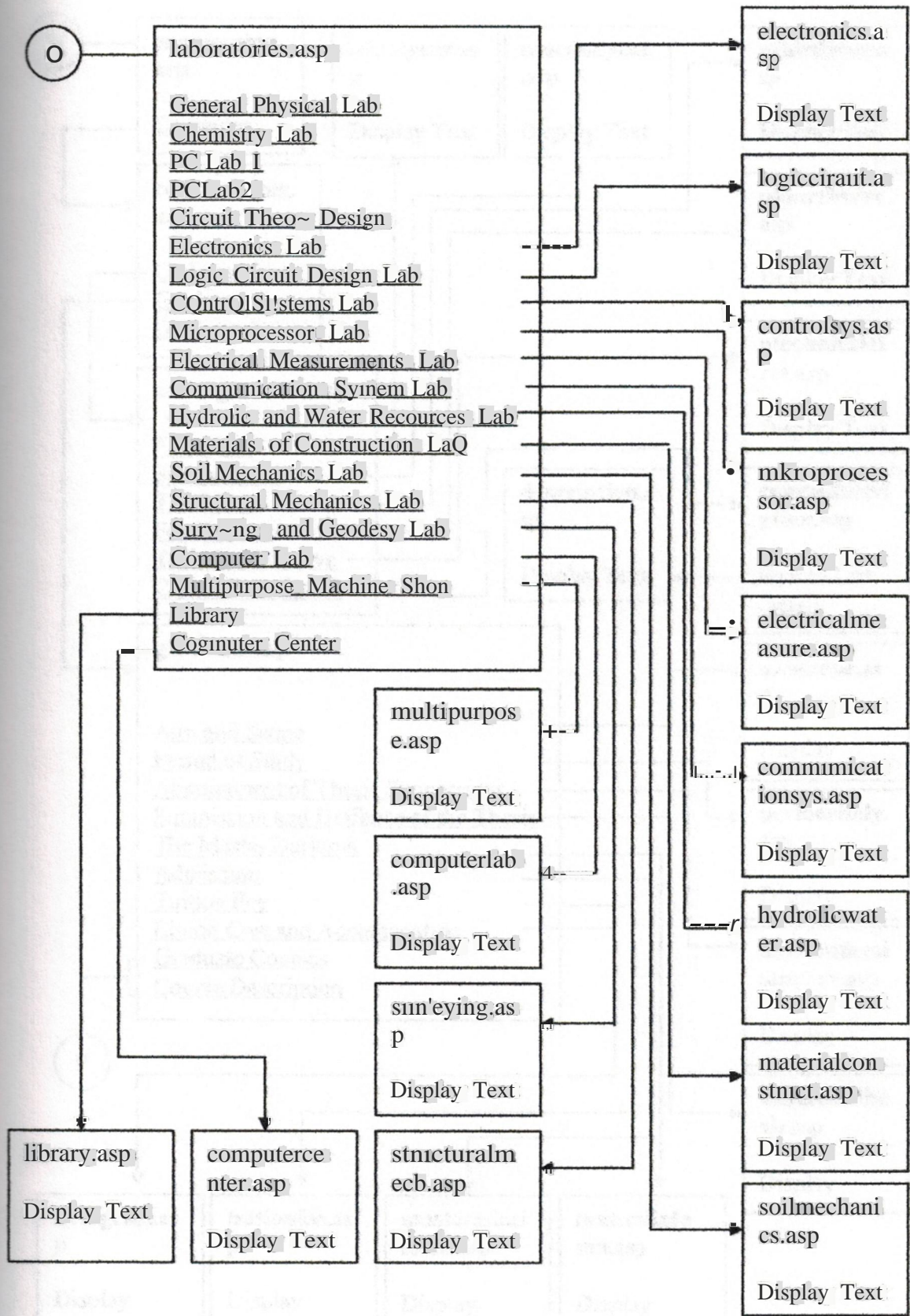
The design for this site is mostly similar with the design of the Near East University Website. Some links are added in the first page, but the rest of the site is mostly similar with the University website. The idea was to provide a similar web site on mobile phones for the students, so I follow the University website design. Before explaining about the coding process it is important that we first look at the site map of this application. The total files of this application are 94 and the site map of this application is as follow.



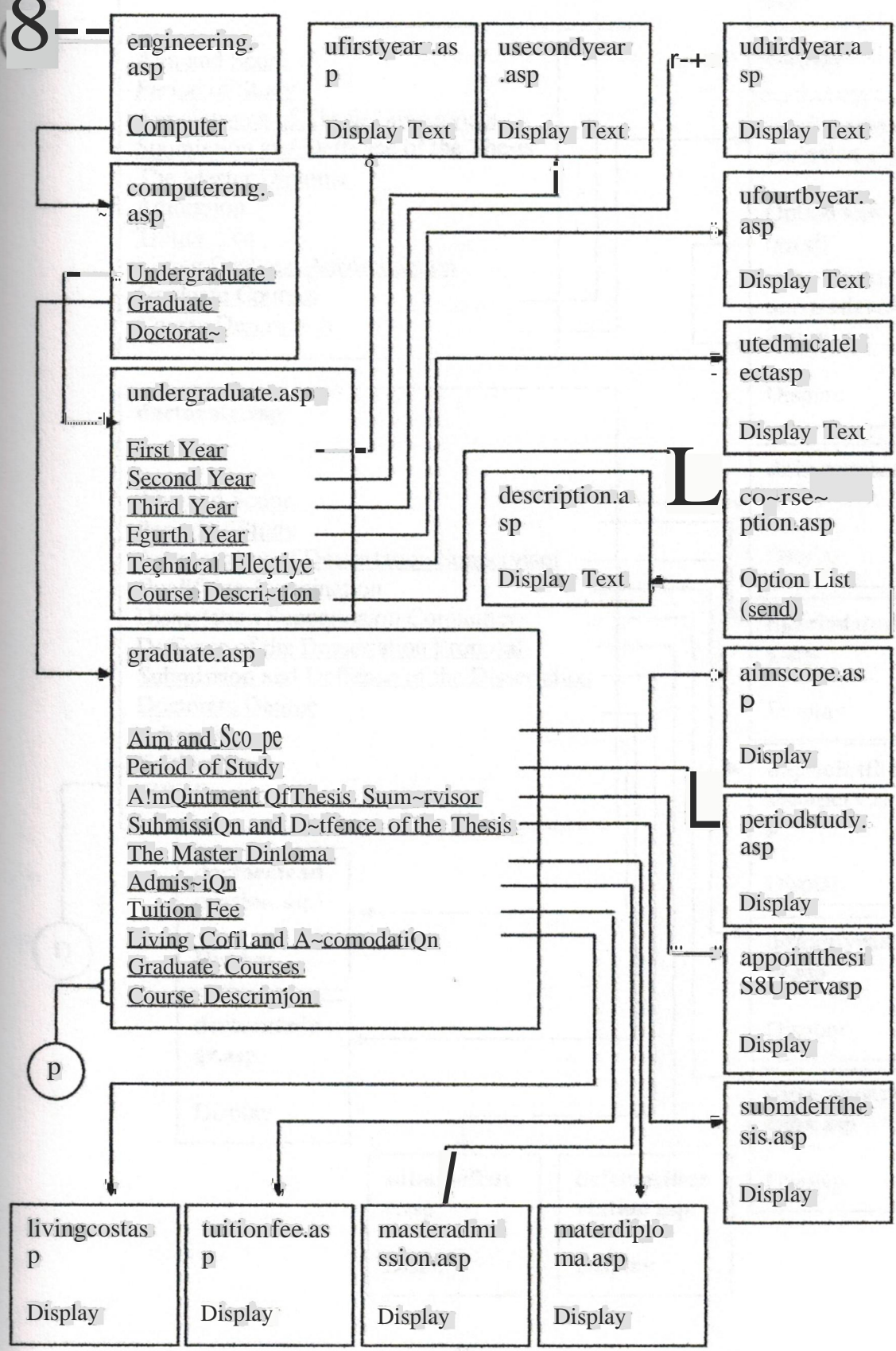


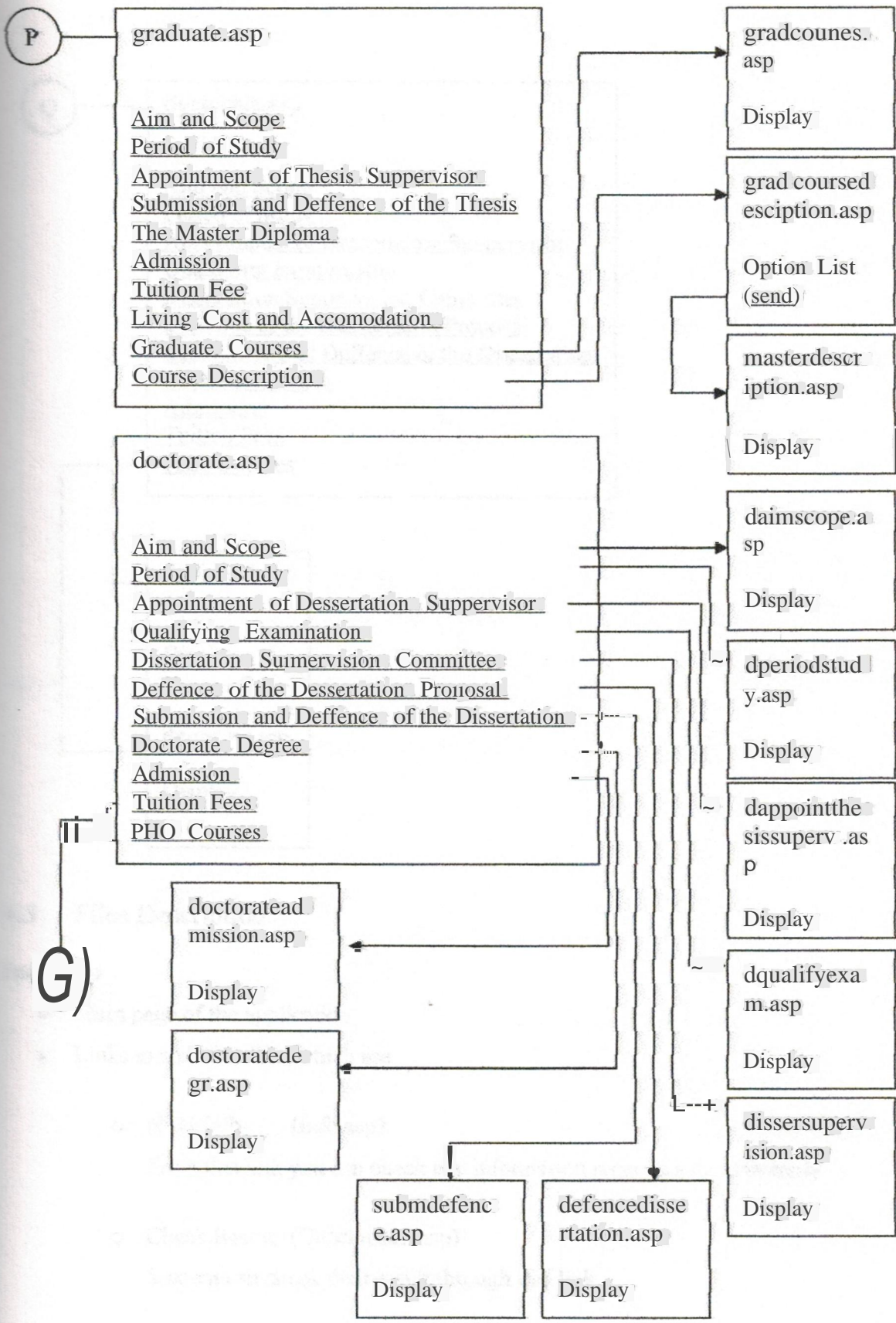


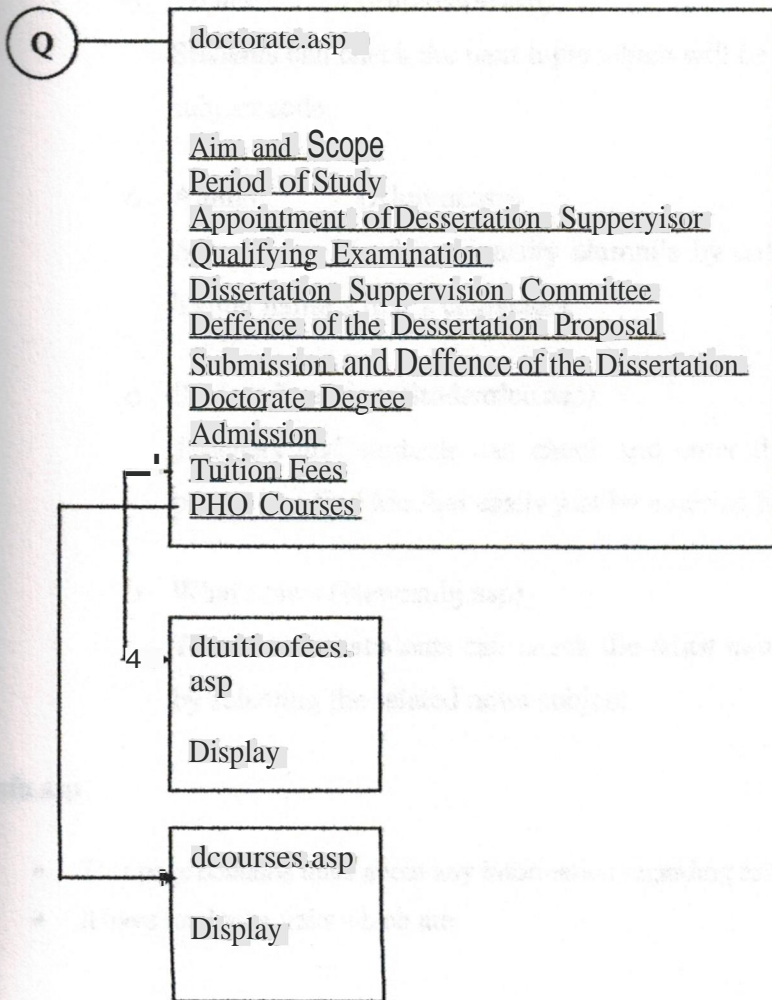




8







4.3 FilesDescription

Index.asp

- Main page of the application
- Links to six other files which are
 - o NEUinfo (Info.asp)
From this link you can check any information regarding the university
 - o CheckResult (Checkresult.asp)
Student can check their result through this link

- o Topics (Entercode.asp)
Students can check the next topic which will be given by only entering the subject code.
- o Alumni (Alumni.asp)
Anyone can see the university alumni's by entering his/her name or just his/her name's first 2 characters.
- o Student Location (Studentloc.asp)
Teachers and students can check and enter their location so that other person can find him/her easily just by entering his/her name.
- o What's New (Newssubj.asp)
Teachers and students can check the latest news related to the university by selecting the related news subject.

info.asp

- This page contains links about any information regarding to University
- It have total nine links which are
 - o Message from Rector (rectormess.asp)
You can see the message from our university rector.
 - o Academics (#academics)
This links follows to the faculty, staff and laboratories of the university.
 - o Admission (admission.asp)
Student or anyone can check the procedure of admission in the university through this link.
 - o Living (living.asp)
Anyone can check the living standard of our university.

- o Calendar (calendar.asp)

You can check the academic calendar through this link.

- o Training (training.asp)

University gives training in some areas, you can check for this through this link.

- o Campus Life (campuslife.asp)

What is the campus life and which facilities are provided by the university you can check this through this link.

- o Sports (sportasp)

You can check the sports activities through this link.

- o Liaison Offices (liasion.asp)

You can check the addresses of the liaison offices through selecting the related country.

- **#academic**

This file is the part of info.asp and this file contain the following links.

- o Faculty (faculty.asp)

Through this link you can check the engineering faculty details.

- o Staff(staff.asp)

Through this you can check the ~iversity staff infomnation.

- o Laboratories (laboratories.asp)

Through this link you can check the laboratories information.

checkresult.asp

- In this file the student enter his/her registration number to check his/her result
- The registration number is send to another file resultasp which shows his/her result from the database.

subjectcode.asp

- In this file the student enters his/her subject code to check the latest topic which will be given by his/her teacher.
- The subject is send to another file topic.asp which gets the latest topics form the database.

.i.mni.asp

- In this file anyone can check the university alumni's from entering his/her name or the first two letters.
- The name is send to another file search.asp and that file display the searched result from the database.
- There is another option that you can see all the alumni' s clicking on "see air". All the results from the database will fetched from the database.

itadentIM.Up

- In this file the student can enter his location, name, last name, registration number, and email address. And other person can also check the student location after entering bis/her name.
- When the student enters his/her location the information is passed to another page enterlocation.asp which stores the information in the database.
- When the student search for the student location the "name" of the student is passed over to next page checklocation.asp which display requested location from the database.

newssubj.asp

- This file gets the subjects of the news from the database.
- When the user selects any subject, the news related to that subjects are displayed from the page news.asp.

4.4 Database Design and Development

I have divided the database in three parts. Why I have divided the database in three parts I will explain it later. I have developed the database very simply, because when working with the mobile on WAP you have to keep the database simple. I did not use too long and complex SQL queries because for making the application work fast and *quick* so that the user of this application can save the time, because when using WAP time cost too much. For database development I have used Microsoft Access 2000. The following are the names of the three databases.

- Neuwap
- Neufaculty
- Laboratories

The following is the design of the Database.

4.4.1 Neuwap Database Design

There are eight tables in this database which are as follows:

- Admission

This table contains information about the admission process.

Table 4.1 Admission

Field Name	Data Type
Admission	memo

- Alumni

This table contains information about the alumni's.

Table 4.2 Alumni

Field Name	Data Type
Firstname	Text
Lastname	Text
City	Text
Email	Text

- **Living**

This table contains information about the living and accommodation.

Table 43 Living

Field Name	Data Type
Living	Memo

- **News**

This table contains information about the upcoming events and news.

Table 44 News

Field Name	Data Type
Subject	text
Date	text
Time	text
News	memo

- **RectorMessage**

This table contains the message from the University Rector.

Table 45 RectorMessage

Field Name	Data Type
Message	Text

- **Studentlocation**

This table contains information about the student location.

Table 46 Studentlocation

Field Name	Data Type
Studentid	Text
Firstname	Text
Lastname	Text
Email	Text
Location	Text

- **Studentresult**

This table contains information about the student results.

Table 4.7 Studentresult

Field Name	Data Type
Studentid	Text
Firstname	Text
Lastname	Text
Courseid	Text
Coursename	Text
Coursresult	Text

- Transferstudent

This table contains information about the transfer student procedure.

Table 4.8 Transferstudent

Field Name	Data Type
Transfstudent	Text

4.4.2 Neufaculty Database Design

There are eighteen tables in this database which are as follow.

- Bank

This table contains information about the University bank.

Table 4.9 Bank

Field Name	Data Type
Bank	Text

- Cinema

This table contains information about the University cinema club.

Table 4.10 Cinema

Field Name	Data Type
Cinema	Text

- **Culture**

This table contains information about the University cultural activities.

Table 4.11 Culture

Field Name	Data Type
Culture	Text

- **Doctorateprogram**

This table contains information about the University doctorate program.

Table 4.12 Doctorateprogram

Field Name	Data Type
Subject	Text
Description	Memo
Title	Text

- **Documents**

This table contains information about the documents required for the admission.

Table 4.13 Documents

Field Name	Data Type
Number	Number
Requirement	Memo

- **Fallterm**

This table contains information about the fall term schedule

Table 4.14 Fallterm

Field Name	Data Type
Date	Text
Month	Text
Year	Text
Comments	Memo

- **Graduatecourses**

This table contains information about the offered graduate courses.

Table 4.15 Graduatecourses

Field Name	Data Type
Subject	Text
Cid	Text
Title	Text
Description	Memo

- **Liaison**

This table contains information about the liaison offices and their addresses.

Table 4.16 Liaison

Field Name	Data Type
Office	Text
Pobox	Text
Address	Text
Tel	Text
Fax	Text
email	Text

- **Postoffice**

This table contains information about the University post office.

Field Name	Data Type
Post office	memo

- **Sport**

This table contains information about the sports activities in the University.

Table 4.18 Sport

Field Name	Data Type
Sport	memo

- Springterm

This table contains information about the spring term schedule.

Table 4.19 Springterm

Field Name	Data Type
Date	text
Month	text
Year	text
Comments	memo

- Staff

This table contains information about the University staff.

Table 4.20 Staff

Field Name	Data Type
Title	text
Name	text
Post	text

- Summerterm

This table contains information about the summer term schedule.

Table 4.21 Summerterm

Field Name	Data Type
Date	text
Month	text
Year	text
Comments	memo

- Swimmingpool

This table contains information about the University swimming pool.

Table 4.22 Swimmingpool

Field Name	Data Type
Swimming pool	memo

- **Topic**

This table contains information about the next topics given by the teachers.

Table 4.23 Topic

Field Name	Data Type
Courseid	text
Coursename	text
Topic	memo
Date	text

- **Training**

This table contains information about the training held by the University.

Table 4.24 Training

Field Name	Data Type
Training	memo

- **Transportation**

This table contains information about the transportation facility given by the University.

Table 4.25 Transportation

Field Name	Data Type
Transportation	memo

- **Undergradcourses**

This table contains information about the under graduate courses offered by the University.

Table 4.26 Undergradcourses

Field Name	Data Type
Year	text
Semester	text
Cid	text
Title	text
Credit	text
Description	memo



4.4.3 Laboratories Database Design

There is one table in this database which is as follow.

- Laboratories:

This table contains information about the University laboratories.

Table 4.27 Laboratories

Field Name	Data Type
Tide	Text
Description	Memo

4.5 Application Development

The development process was the most difficult part. I will not explain about each file here but I will discuss about the main files and there related difficulties which I faced in development. Because there are in total 94 files and to discuss about each file and explaining about the code it would be very difficult. The rest of the code you can find in Appendix. Here I will only discuss about the main problems.

In this section I will not explain that what is WML language and what are the rules and regulations for it, and I will also not explain ASP, but the main key features and the problems faced during the development I will define it here. Files functionality will be also defined.

4.5.1 Creating Dynamic WML Files with ASP

To turn a simple WML file into an ASP file the principle is to change the extension of WML file to ".asp". There is one more thing which I have done. By default, IIS will forward the contents of an ASP file to the browser using the MIME type for HTML, which will be rejected by a WAP device. So, I just need to tell the server to use the MIME type for WML (text/vnd.wap.wml) and to add the following code in the beginning of the file, and then saving it with the extension of .asp.

```
<%Response.ContentType="text/vnd.wap.wml" %>
```

```
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-  
//WAPFORUM/DTD WML 1.1IEN""  
-http://www.wapforum.org/DTD/wml1J.xml"">j%>
```

4.5.2 The ADO 2.5 Object Model

The main logical steps to connect to a database with ADO are as follow.

- First of all, you need to create an object that will manage all the aspects of connecting to the database.
- The second step is to provide the object with all of the information it needs to connect to the database.
- The last step is to invoke the command that will open the connection.

The three main ADO objects are the Connection object, the Command object and the Recordset object.

The Connection object manages the connection to a data store. Through the connection object, we can specify which OLE DB provider we wish to use. We can connect to a database without explicitly creating this object if you create Recordset or a Command object, then a Connection object is created automatically when a connection is needed, as long as the other objects have been told about the details of the connection.

The Command object is used to run commands against the data source. It is used when we need to give parameters to stored procedures, pre-written queries that are tailored to specific users by the inclusion of parameters.

The Recordset object is probably the most often used object in ADO, since this is the object that contains the data we extract from the database when running a query on it. You can think of a Recordset as a super-array. When you obtain a Recordset object as a result of a query, you can view that data in different way, either by iterating through it or by requesting specific fields to view.

4.5.3 Connecting to a Database

I first created a Connection object, using the Server.CreateObject method. Then I define a Recordset and the OLEDB provider. Then I give the map path and tell the location of the database, and then I open the connection.

```
Set conn= server.createobject ("adodb.connection")
Set rs = server.createobject ("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
```

This object encapsulates all of the properties I need to set to establish a connection with the database. Once I have a suitable connection string in place, connecting to the database is simple.

4.5.4 Closing the connection

When the required information is fetched from the database to your device, the important thing then is to close the connection of the database. Because when you open a connection the Recordset hold some memory physically where it store temporarily the data which it gets from the database. So if you do not close the connection the memory usage is wasted. And if you are hosting your site on a Web Server and you do not close the Connection and the Recordset, the service provider just close your account. To close the connection and the Recordset the following code is used.

```
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
```

4.5.5 WML files and Coding

In this section I will explain about the different type of coding techniques which I used in this application. I will not mention all of the code in this section; you can check the rest of the code in the Appendix. I will explain here the different kind of problems related to different kind of situations. The next following code is the index.asp code which is the main page of the application.

Index.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
<'YoResponse.write("<?xmlversion=""J.O""?><!DOCTYPE wml PUBUC
//WAPFORUMIIDTD WML I.JI/EN""
"\"http://www.wapforum.org/DTD/wml_1.1.xml\"")'J%>
```

The above code is the same that I have mentioned and explained in section 4.4.1, where I explained that it is used to convert a static WML page into an ASP page.

```
<wml>
<card id="main" title="University">
<p align="center">
<bi>Near East</b>
<br/>
<br/>
<Ip>
<p>
<a href="info.asp">NEU Info</a>
<br/>
<a href="checkresult.asp">Check Result</a>
<hr/>
<a href="entercode.asp"> Topics</a>
<br/>
<a href="alumni.asp"> Alumni</a>
<br/>
<a href="studentloc.asp">Student Location</a>
<br/>
<a href="newssubj.asp"> What's New</a>
<br/>
</Ip>
</card>
</wml>
```

The above code represents the main WML page which starts with the <wml> tag and then there is the <card> tag in which the rest of the code is written. Each WML file can have many cards. The next is the <a> tag which is used for linking two files. There are six links in the code which are pointing to six ASP files.

checkresult.asp

```
<card id="checkresult" title="Check Result">
  <do type="accept" label="back">
    <previ>
  </do>
```

The rest of the code I did not mention because it was same as previous one this code is used to move from one card to the previous card.

```
  <do type="options" label="MainMenu">
    <go href="index.asp"/>
  <!do>
```

This code is used to add your own title in the mobile menu, and to give that title an address this code is used. So when the user will click on the options button of the mobile this "main menu" will be appeared there and if you select this "main menu" you will be linked back to the main page. This link is given for the user easiness, and I have written it in all the pages so that if the user wants to open the main page from any file he can do.

```
  <do type="accept" label="Send">
    <go href="result.asp" method="get">
      <postfield name="regno" value="$(regno)"/>
    <Igo>
  </do>
  <p>Enter Your Registration number e.g(20011864) to see your result<br/>
  Registration Number:<br/><input name="regno" format="9N" size="10"/><br/>
  <anchor title="Send">Send
    <go href="result.asp" method="get">
      <postfield name="regno" value="$(regno)"/>
    <Igo>
  </anchor>
</p>
```

This code is used to get the registration number from the student and send it to the next ASP page (result.asp). For taking an input from the user this code is used.

```
<input name="regno" format="9N" size="10">
```

In which you give the name for that field and the format of the input field and the size of the field

```
<do type="accept" label="Send">
  <go href="result.asp" method="get">
    <postfield name="regno" value="$(regno)">
  </go>
</do>
```

This code will send the value of "regno" to "result.asp" page. And this "Send" option will appear in the options menu of the mobile, because we have given it in the <do> tag with label= "Send" and type= "accept". The method of sending the value to the other page will be done by the "get" method. This is as follow.

```
<go href="result.asp" method="get">
  <postfield name="regno" value="$(regno)">
</go>
```

We use this "get" method because in WML the "post" method does not function correctly. The <postfield> tag is used to hold the values and send it to the next page.

resultasp

```
<%
dim sql,regno
regno = Request.QueryString("regno")
```

This code is used to declare the variable "sql" and "regno". The next line is getting the value of "regno" from the previous page through Request.QueryString function, which was send from checkresult.asp. And then its storing the value in "regno" which is declared on this page through dim.

```
sql='Select studentid,jirsiname,lastname,courseid,coursename,courseresultfrom
studemresultwhere studentid = '&regno&'
set rs = conn.Execute(sql)
%>
```

In this code the records are being picked where the studentid is equal to variable regno which we have declared through dim.

```
<p><b><%Response. Write rs("studentid'J%> </b><hrl>
<%Response. Write rs("firstname'J%><YoResponse. Write " "%<YoResponse. Write
rs("lastname "J%><hr/> <br/>
```

This code will write the studentid and the first and the last name of the student on the mobile screen.

```
<% Do while not rs.EOF^A>>
<b><%Response. Write rs("courseid")%></b><brl>
<%Response. Write rs("coursename'J%><brl>
<b>Result: <lh><YoResponse, Write rs("courseresult"}%><brl> <hr/>
<%rs.MoveNext
loop
%>
```

This code will write the courseid and course name and course result with respect to the registration number of the student. And then through "rs.MoveNext" the record will be shifted to next one and the second record will be displayed until end of file.

newssubj.asp

```
<%dim sql!
```

Whenever we start any scripting code we have to start it with the less-than and the percentage sign and when we close the scripting code we have to end with the percentage sign and the greater-than sign (<% script %>). In this application I have used ASP to we have to use these two signs when we start and end ASP code. Dim is used to declare a variable.

```
set conn = server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("dbInewwap.mdb ")
conn.open
```

This is the same code which I explained in section **write section** which is used to make the connection with the database.

```
sql="Select subject from news"
set rs = conn.Execute(sql),
```

Sql is the variable declared with dim which hold the query. Then there is the SQL query command which will get news form subject table of neuwap.mdb. The next line is used to run the query and the Recordset "rs" will hold the result of the query in it.

```
<select name= "subject">
<% Do while not rs.EOF
Response. Write "<option value="&rs("subjectj& ""> "&rs("subject")&"<option>" &
vbCrLf
rs.MoveNext
loop
%>
</select>
```

This code is used to get the options from the database and to show them on the mobile screen. The <select> tag is used to select an option from the list and store it in the variable "subject". And the "Do while" loop is used to get the records until the file does not end in the database. The next line which is the "Response.write" it will show the options on the mobile screen. The "&" sign is used to concatenate the ASP code with WMLcode.

search.asp

```
<%
dim sql.name
name = Trim(Request("name"))
```

The Trim function is used to get the value from the previous page and then trim it. So that if the student have given only the first 2 character of the name to search then it will make a search on those characters.

```
sql="Select *from alumni where firstname Hire '%"&name&"%' or lastname Hire
 '%"&name&"%'
set rs = conn.Execute(sql)
%>
```

In this sql query the search is made through "like". Now where the name variable will be LIKE "name" and "lastname" it will fetch those records from the database. So if there is only one character in the name variable which it get from the previous page it will search

on that character. It will take all the records from the database where the "name" or "lastname" have the first character "w".

```
<p><% Do while not rs.EOF>
<b></o/Response.Write rs("firstname")%></o/Response.Write " " %></o/Response.Write
rs("/astname")%></b><br>
City: </o/Response. Write rs("city")o/o><br>
Email: </o/Response. Write rs("email")%><br!><br!>
<%rs.MoveNext
loop
%>
</p>
```

This code will display the student name, last name, city, email address, all the searched records until end of file.

enterlocation.asp

```
<%
dim sql,sql1 ,sql1,regno,name,lname,email,location
regno = Request.QueryString("regno")
name = Request.QueryString("name")
lname = Request.QueryString("lname")
email = Request.QueryString("email")
location = Request.QueryString("location")
```

In this code we declared the variables for this file and then we stored the values requested from the previous page in the variables.

```
set conn = server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
set rs1 = server.createobject("adodb.recordset")
set rs2 = server.createobject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("dbIneuwap.mdb")
conn.open
```

In this connection with the database code I have made 3 Recordsets, because for each SQL query you have to make different Recordset. So here we have rs, rs1, and rs2. You can give any name for the Recordset.

```
sql="Select studentidfrom studentlocation where studentid=" & regno & ""
```

```
set rsl = conn.Executesql)
```

Here we are selecting the studentid from studentlocation table where it is equal to "regno" (registration number).

```
if rsl.EOF then
    rsl = true
else
    rsl = false
end if
```

Now we are setting rsl to true if the record is not found in the database. And if we found any record which is equal to "regno" we set rsl to false.

```
if rsl then
    sql = "Insert into studentlocation (studentid,firstname,lastname,email,location)
values ('&regno&'~ '&name&', '&/name&', '&email&', '&location&'"
set rs = conn.Executesql}
```

If rsl is true then it will execute this SQL query and the values requested from the previous page will be inserted into the database.

```
else
    sql2 = "Update studentlocation set firstname
='&name&',lastname='&lname&',email='&email&',location='&location&'
where studentid='&regno&'"
    rs2 = conn.Executesql2
end if
Response.Write "Your Location is Successfully saved... %"
```

If rsl is false it will execute this SQL query and the previous records will be updated with the new values, which we have received from the previous page. These conditions are made because if a student did not enter any location previously then a new record will be stored. But if a student is entering second time his location then a new insertion will not be made in the database to save the space of the database. The record will be updated at the place where it will find the previously entered registration number is equal to the new given one.

4.6 Summary

In this chapter, the development of the application is explained. All of the code is not explained in this chapter but the difficult part of the application is defined. The important points of developing dynamic WAP applications are defined. As WAP applications tend to be highly timesensitive, the ability to create dynamic applications is an important asset to the developer.

The database design of the application is also explained. The database connection is also explained that how connection is made with the database using ASP and WML. Database search and insertion is also explained in this chapter.

5. SIMULATION OF WAP APPLICATION FOR UNIVERSITY WAP SITE

5.1 Simulation

In this chapter I have explained about the main features of the application with their respective screen shots. In this chapter I didn't give all the screen shots of the application, but I have given the main screen shots which I think were necessary to explain. The rest of the application I have presented in the development chapter in section 4.2 and 4.3. The following are the main screen shots of the application.

5.2 Main Page



Figure 5.1 Main Page

This is the main screen and the following are the links on this page.

- NEUinfo
- Check Result
- Topics
- Alumni
- Student Location
- What'sNew

The users can press the "yes" button (green telephone cradle button) of the mobile set to browse the next page. There is also an option button on the mobile set, in which the users can also find the option to open the link, or to go to main page, and to go back. To browse the page till end, the user can use the middle button for scrolling up and down.

Each time when the user will scroll down the link will be highlighted with black box on all over the link. If there is no link then only simple plain text will be appeared on the screen.

5.3 NEUinfo



Figure 5.2 NEU Info

This page contains all the information regarding to the Near East University. On this page we have the following links, and the following are the screen shots of those links.

- o Message from Rector (rectormess.asp)
- o Academics (#academics)
- o Admission (admission.asp)
- o Living (living.asp)
- o Calendar (calendar.asp)
- o Training (training.asp)
- o Campus Life (campuslife.asp)
- o Sports (sport.asp)
- o Liasion Offices (liasion.asp)

5.4 Message from Rector

Tbhis is screen represent the message from the Rector for the student. Then you can press the back button to go back on the info page.

This screen represents the living standards of the University. All the details regarding the living cost and standard is on this page. Then you can press the back button to go back on the info page.



Figure 5.3 Rector Message

5.5 Admission



Figure 5.4 Admission

This screen represents the admission process of the University. Then you can press the back button to go back on the info page.

5.6 Living



Figure 5.5 Living

This screen represents the living standards of the University. All the details regarding the living cost and standard is on this page. Then you can press the back button to go back on the info page.

5.7 Calendar



Figure 5.6 Calendar

On this screen there are following links. You can see the academic calendar for each term on this page. Then you can press the back button to go back on the info page.

- o Fall Term (fallterm.asp)
- o Spring Term (springterm.asp)
- o Summer Term (summerterm.asp)

5.8 Fall Term

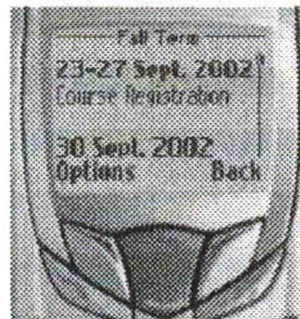


Figure 5.7 Fall Term

You can see the fall term calendar which is retrieved from the database like this, or you can press back button to go back.

5.9 Spring Term

You can see the fall term calendar which is retrieved from the database like this, or you can press back button to go back.



Figure 5.8 Spring Term

5.10 Training

On this page you can get information about the University training. Then you can press the back button to go back on the info page.



Figure 5.9 Training

5.11 Campus Life

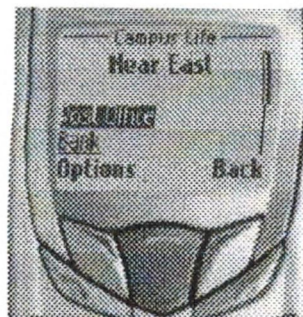


Figure 5.10 Campus Life

This page contain the following links from which you can see the details regarding to the Post Office, Bank, Swimming Pool, Cinema Club, Cultural Activities, Transportation, or you can press the back button to go to the info page.

- o Post Office
- o Bank
- o Swimming Pool
- o Cinema Club
- o Cultural Activities
- o Transportation

5.12 Liasion

This page contains information about the liaison offices. And you can select any country name given in the option list and the address of the *liaison* office present in the selected country will be fetched from the database. The following is the procedure for this:



Figure 5.11 Liasion

First you press the option button, click on Open list the records will be retrieved from the database and a list will be shown to you like this:



Figure 5.12 Select

Select any country name from the given list and then press option button and select Send like this:

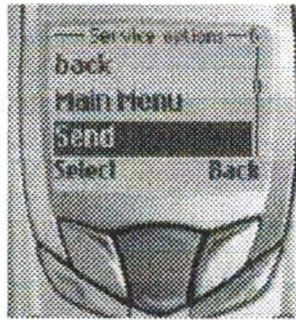


Figure 5.13 Service Options

The selected country name will be send to the database to get the related address and the address will shown like this which is n next screen.



Figure 5.14 Office Address

Here we have the result for liaison office which is situated in Amman.

5.13 Academic

This page contains links about the faculty, staff, and the laboratories information.

- o Faculty (faculty.asp)
- o Staff (staff.asp)
- o Laboratories (laboratories.asp)

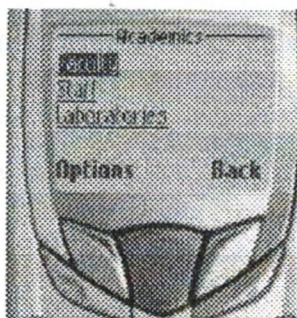


Figure 5.15 Academics

5.14 Faculty

This page contains link about the engineering faculty. The rest of the links are not working because I have only given information about the Engineering faculty.



Figure 5.16 Faculty

5.15 Staff

This page contains the following links, which contains information about all the university staff.

- o Members of Staff Administrative and Academic (adminacademic.asp)
- o Academic (staffacademic.asp)
- o Lab Assitants (labassitants.asp)
- o Administrative (administrative.asp)



Figure 5.17 Staff

5.16 Member of Staff Administrative and Academic

This page contains information about the administrative and academic staff. The information is retrieved from the database.



Figure 5.18 Admin and Academic

5.17 Academic

This page contains information about the academic staff. The user can scroll down and read the information by pressing the up down button of the mobile.

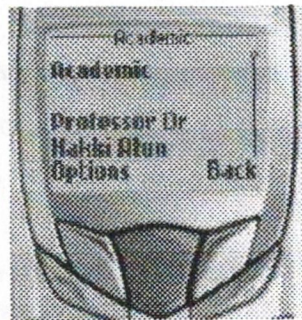


Figure 5.19 Academic

5.18 Lab Assistants

This page contains information about the lab assistants.



Figure 5.20 Lab Assistants

5.19 Administrative

This page contains information about the administratives. You can press back button to go back to the previous page.



Figure 521 Administrative

5.20 Laboratories

This page contains the links regarding the laboratories of the Near East University. When the user will select any laboratory the information regarding to that laboratory will be retrieved from the database. The following are the links on this page.

- o General Physical Lab (generalphys.asp)
- o Chemistry Lab (chemistry.asp)
- o PC Lab 1 (pclab1.asp)
- o PC Lab 2 (pclab2.asp)
- o Circuit Theory Design (circuittheory.asp)
- o Electronics Lab (electronics.asp)
- o Logic Circuit Design Lab (logiccircuit.asp)
- o Control Systems Lab (controlsys.asp)
- o Microprocessor Lab (microprocessor.asp)
- o Electrical Measurements Lab (electricalmeasure.asp)
- o Communication System Lab (communicationsys.asp)
- o Hydraulic and Water Resources Lab (hydraulicwater.asp)
- o Materials of Construction Lab (materialconstruct.asp)
- o Soil Mechanics Lab (soilmechanics.asp)
- o Structural Mechanics Lab (structuralmech.asp)
- o Surveying and Geodesy Lab (surveying.asp)
- o Computer Lab (computerlab.asp)
- o Multipurpose Machine Shop (multipurpose.asp)
- o Library (library.asp)
- o Computer Center (computercenter.asp)



Figure 5.22 Laboratories

5.21 Check Result

Through this page a student can check his/her result on his mobile phone. The procedure for checking the result on the mobile phone is as follow:

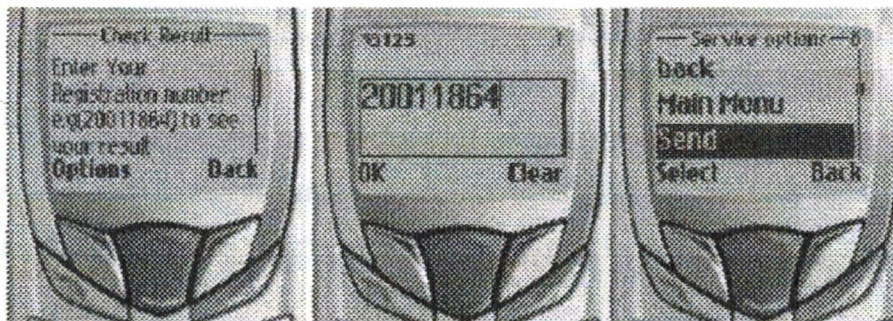


Figure 5.23 Check Result

The student will enter his/her registration on this page. Select the box to enter the registration number and then press the "yes" button. Then have to type the registration number and press "ok" button. After pressing the "ok" button the student will send the registration number by pressing the "option" button and then selecting the "send" link in the option list.

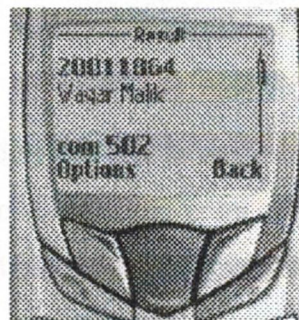


Figure 5.24 Result

The result of the student will be retrieved by his registration number, and will be show like this in the microbrowser of the mobile set. After that the student can press the back button to go back to the previous page or the student can press the option button to select the "main menu" to go directly to the main page of the application. The following is the screen shot of the procedure:



Figure 525 Service Options

5.2.2 Topics

On this page the students can enter his subject code to check the next topic and date of the course. The information is retrieved from the database. The procedure for this is given as follow:

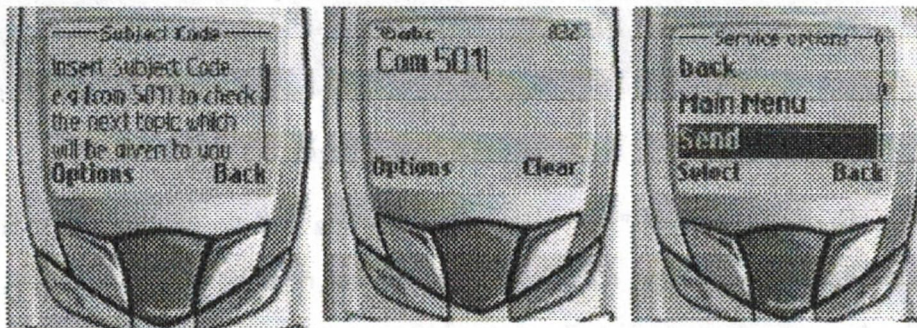


Figure 526 Topics

On this page the student will select the box to enter the course code. And then press the "yes" button of the mobile phone and then enter the course code. After entering the course code press the option button to send the course code.



Figure 5.27 Next Topic

The information will be displayed like this in which the course name and the topic and the date will be displayed.

5.23 Alumni

Anyone can see the university alumni's by entering his/her name or just his/her name's first 2 characters. The procedure for this as follow:

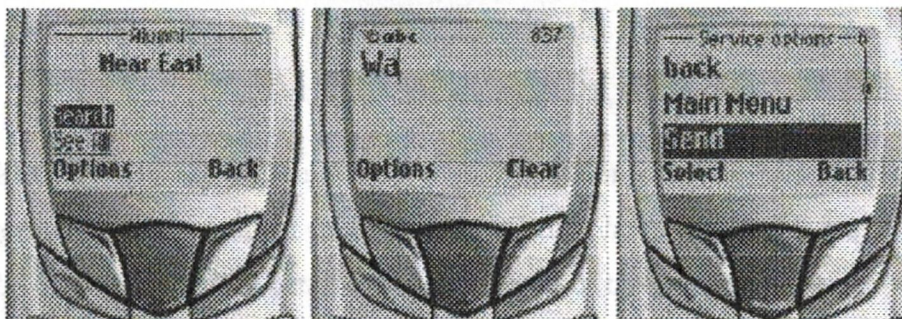


Figure 5.28 Alumni

First you will select the search link and then press the "yes" button. Then you can enter the name of the Alumni you want to search, or you can also type the first 2 characters or even you can type only the first character of his name. But if you will give only the first character the result which will come will be too large. Too many results with the same character will be retrieved from the database. So to keep your search limited to your requirement you have to give atleast two characters or three so that your required result could be retrieved easily without any other unwanted result. Then press the "option" button and select "send" from the option list and press select.



Figure 5.29 Alumni Result

Your required result will be displayed like this in which the student name, city, email address will be shown.

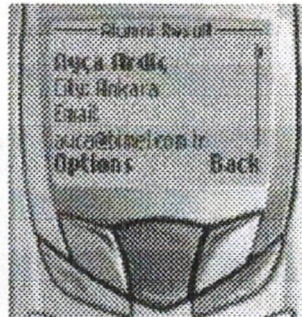


Figure 5.30 Alumni Result

The student can also see all the alumni's list by clicking on the "see all" link, but the result depends upon the student mobile phone. If the phone memory is less then the list will not be displayed. So it is better to give the name of the student in the search to get rid of this problem.

5.24 Student Location

Teachers and students can check and enter their location so that other person can find him/her easily just by entering bis/her name. There are two links on this page which are as follow.

- o Check student location (checklocation.asp)

Through this page you can check the student location. For doing this you have to give not his registration number, just enter his name or his names first 2 characters. The following is the screen shot and their explanation.



Figure 5.31 Student Location

This is the page where you click on the "check student location" and then the next page will appear which will ask you to enter the name of the student or to enter the first two or three characters.

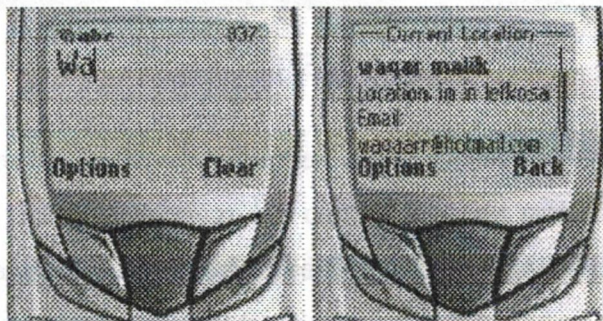


Figure 5.32 Current Location

The required result will be shown like this in which the student name and his location, and his email address will be appeared.

- o Enter your location (enterlocation.asp)
Through this link the student can enter his location. So that other persons can check his/her location. The procedure for entering your location and your email address and name is shown in the next figure.

5.25 News

In this page the student can check the latest news relating to the New York University. The following is the procedure for checking the link and the screen flow are as follow

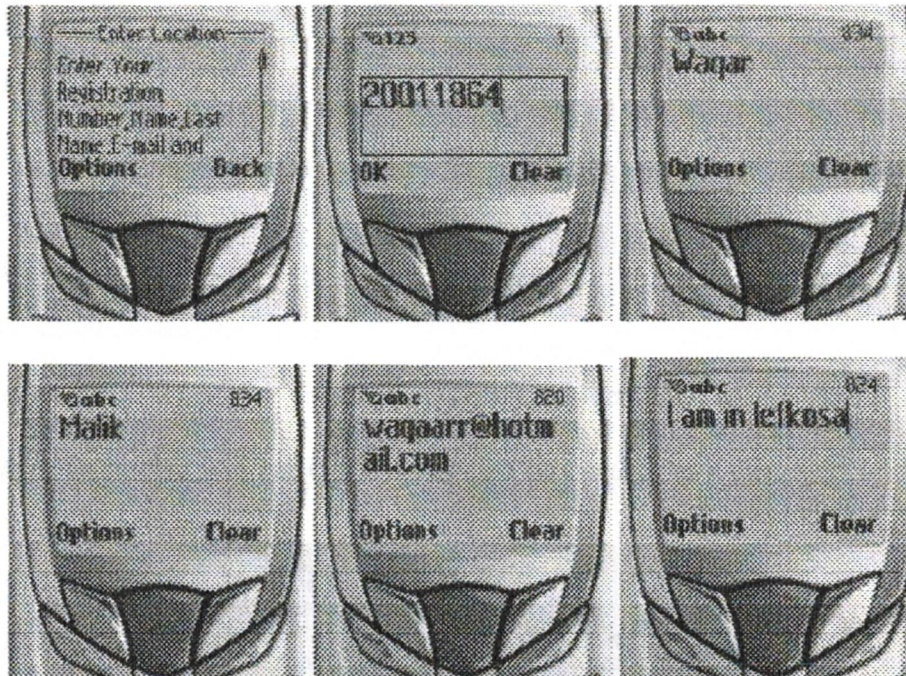


Figure 5.33 Enter Location

The student will enter his registration number, name, last name, and his email address. In last the student will write his location, the current location which he/she want to tell to other people. And then the student will send this information which will be saved in the database and a confirmation page will be displayed to the student that his information is saved successfully. The figure shows that page.



Figure 5.34 Location Saved

5.25 News

In this page the student can check the any news relating to the Near East University. The following is the procedure for checking the news, and the screen shots are as follow:



Figure 5.35 News Subjects

At this page the student will select the option list box and open it just like I told it before.

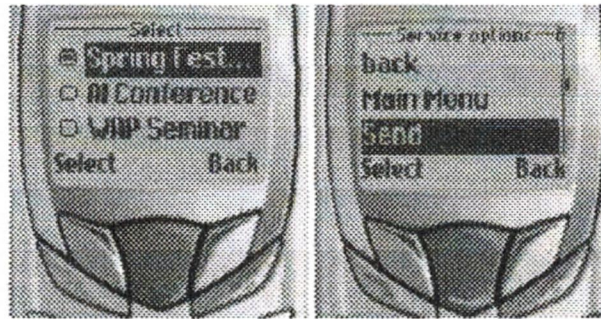


Figure 5.36 Subjects Options

The student will select the subject of the news from the list, the list is generated from the database. Then he/she will send it to the database for the required news related to the subject.



Figure 5.37 News

The news related to the subject selected by the student will be retrieved from the database and will be shown in the microbrowser as shown above in the figure.

5.26 Summary

In this chapter the procedure is explained, and given some screen shots about the application. The navigation between the files and how to use the device is explained. The procedure to search and retrieve the data from the database is explained in this chapter. How the student will enter his biodata and send it to the database is explained in this chapter. How the student will check his/her result is also explained in this chapter.

CONCLUSION

The main objective of this thesis was to develop a WAP site through which student can access their results, courses, topics date, latest news related to University, students can tell about their location, and they can check any information related to the University on their handheld devices. The main task was to connect the handheld device with the University database so that every kind of information will be retrieved from the database.

The new idea in this thesis is that before the University had a Web site only, and now the University has also its WAP site which is successfully running online. And students having WAP connections can check their results, their courses, topics dates, latest news related to the University.

The WAP application and the database system was developed and connected, and tested successfully. Each tasks were completed and the goals were achieved which I made before starting this thesis.

In the future we are likely to see much higher bandwidths being available. It is unlikely that these bandwidths will ever challenge wired bandwidths – where technology is increasing at a similar rate. Wireless bandwidths will always be a step or two behind. But things will be a lot better than they are now, that's for sure!

Soon, devices will be "always on", that is, "always connected". From the moment you switch your device on in the morning you will have a WAP connection. This will mean that e-mail receipt will be instant, and "WAP push" applications will be possible.

Location awareness is also likely to appear soon, possibly using GPS technology. In some ways that'll be great – instant traffic reports with the minimum of effort is good, targeted push advertising when you walk past a shop window isn't. Still, it'll happen.

All in all— we're in for an exciting ride!

REFERENCES

Books

1. R. M. Deitel.; P. J. Deitel.; T. R. Nieto. (2002). Internet & World Wide Web, Prentice Hall, New Jersey
2. Professional WAP. (2000) Wrox Press
3. Michael Morrison, et al. (1999). XML. Techmedia Sams

Online Articles

4. Nokia Forum.WAP Specification 1.x, June:2000 from the World Wide Web:
<http://www.forum.nokia.com>
5. Success for WAP [On-line]. Feb:2001 from the World Wide Web:
<http://www.success4wap.com>
6. Wireless Application Protocol [On-line]. June:2000 from the World Wide Web:
<http://www.wapforum.org>
7. Microsoft UDA [On-line]. March:2003 from the World Wide Web:
<http://www.microsoft.com/data/>
8. ASP Today [On-line] March:2003 from the World Wide Web:
<http://www.asptoday.com>
9. AnywhereYouGo [On-line] March:2003 from the World Wide Web:
<http://www.anywhereyougo.com>
10. M-Indyacom (On-line) March:2003 from the World Wide Web: <http://www.m-indyacom/mwap/>
11. The WAP Group [On-line] March:2003 from the World Wide Web:
<http://www.thewapgroup.com>
12. Gelon [On-line] March:2003 from the World Wide Web: <http://www.gelon.net/>
13. MobileThink [On-line] March:2003 from the World Wide Web:
<http://www.mobilethink.com>
14. The independent WAP and WML FAQ [On-line] March:2003 from the World Wide Web: <http://www.colorline.no/wap-faq/>

15. Asia Pacific WAP developer forum [On-line] March 2003 from the World Wide Web: <http://www.wapeomsg/>
16. Nokia [On-line] March:2003 from the World Wide Web: <http://www.nokia.com/>
17. Phone.com [On-line] March:2003 from the World Wide Web: <http://updev.phone.com/dev/ts/>
18. Ericsson [On-line] March-2003 from the World Wide Web: <http://www.ericsson.com/developerszone/>
19. Motorola [On-line] March 2003 from the World Wide Web: <http://www.motorola.com/MIMS/MSPG/spin/mix/mix.html>
20. Winwap [On-line] March 2003 from the World Wide Web: <http://www.slobtrot.com/winwap/>
21. Near East University [On-line] March:2003 from the World Wide Web: <http://www.neu.edu.tr>

APPENDIX

index.asp

```
<%Response.ContentType="text/vnd.wap.wml"/%>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ''-//WAPFORUM//DTD WML 1.1/EN''
'http://www.wapforum.org/DTD/wml_1.1.xml'>")I.>
<wml>
<card id="main" title="University">
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<fi>
<a href="info.asp">NEU Info</a>
<br/>
<a href="checkresult.asp">CheckResult</a>
<br/>
<a href="entercode.asp"> Topics</a>
<br/>
<a href="alumni.asp">Alumni</a>
<br/>
<a href="studentloc.asp">StudentLocation</a>
<br/>
<a href="newsmbj.asp">What's New</a>
<br/>
</JP
</card>
</wml>
```

info.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ''-//WAPFORUM//DTD WML 1.1/EN''
'http://www.wapforum.org/DTD/wml_1.1.xml'>")%>
<wml>
<card id="info" title="About">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp" />
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p>
<a href="rectormess.asp">Message from Rector</a>
<br/>
<a href="#academics"> Academics</a>
<br/>
<a href="admission.asp">Admission</a>
```

```

        <br/>
        <a href="Living.asp">Living</a>
        <br/>
        <a href="calendar.asp">Calendar</a>
        <br/>
        <a href="training.asp">Training</a>
        <br/>
        <a href="campuslife.asp">Campus Life</a>
        <br/>
        <a href="sport.asp">Sports</a>
        <hr/>
        <a href="liasion.asp">Liasion Offices</a>
        <br/>
</p>
<Icard>
<card id="academics" title="Academics">
  <do type="accept" label="back">
    <:prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp">
  </do>
  <do type="options" label="Main Menu">>
    <go href="index.asp"/>
  </do>
</p>
<p>
  <a href="faculty.asp">Faculty</a>
  <br/>
  <a href="stafiasp">Staff</a>
  <br/>
  <a href="laboratories.asp">Laboratories</a>
  <br/>
</p>
</card>
</wml>

```

checkresult.asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version=""1.0""?<!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapfurwn.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="checkresult" title="Check Result">
  <do type="accept" label="back">
    <:prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go href="index.asp">
  </do>
  <do type="accept" label="Send">
    <go href="result.asp" method="get">

```



```

        <postfield name="regno" value="$(regno)"/>
    </go>
</do>
<p align="center">
    <b>Near East</b>
    <hr/>
    <br/>
<Ip>
<p>Enter Your Registration number e.g(20011864) to see your resuh<br/>
Registration Number:<br/><input name="regno" format="9N" size="10"/><br/>
<anchor title="Send">Send
    <go href="result.asp" method="get">
        <postfield name="regno" value="$(regno)"/>
    </go>
</anchor>
<Ip>
</card>
</wml>

```

entercode.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""httpJ/www.wapfonnn.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="enteicode" title="Subject Code">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <do type="accept" label="Send">
        <go href="topic.asp" method="get">
            <postfield name="subcode" value="S(subcode)"/>
        </go>
    </do>
<p align="center">
    <b>Near East</b>
    <hr/>
    <br/>
<Ip>
<p>Insert Subject Code e.g (com 50 I) to check the next topic which will be given to you next
week.<br/>
Subject Code:<br/><input name="subcode" type="text" size="10"/><br/>
<anchor title="Send">Send
    <go href="topic.asp" method="get">
        <postfield name="subcode" value="$(subcode)"/>
    </go>
</anchor>
<Ip>

```

```
</card>
</wml>
```

alumni.asp

```
</oResponse.ContentType="text/vndwap.wml"%>
</oResponse.write("<?xml version=""!.0""?><!DOCTYPE winJ PUBLIC""-
//WAPFORUM//DTD WML 1.1//EN"" "http://www.wapforwn.org/DTD/wml_1.1.xml"">)%>
<wml>
  <card id="alumni" title="Alumni">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <hr/>
      <hr/>
    </p>
    <p>
      <a href="#search">Search</a>
      <br/>
      <a href="seeall.asp">See All</a>
      <br/>
    </p>
  </card>
  <card id="search" title="Search Alumni">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <do type="accept" label="Send">
      <go href="search.asp" method="get">
        <postfield name="name" value="$(name)"/>
      </go>
    </do>
    <p align="center">
      <b>Near East</b>
      <hr/>
      <hr/>
    </p>
    <p>Enter the name of the student OR you can also write the first 2 alphabet of his/her name to
    search.<br/><br/>
    Alumni Name:<br/><input type="text" name="name" size="10"/><br/>
    <anchor title="Send">Send
      <go href="search.asp" method="get">
        <postfield name="name" value="S(name)"/>
```

```

        </go>
    </anchot>
    </p>
</card>
</wml>

```

studentrtloc.asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD WML 1.1//EN"" u"http://www.wapfonmi.org/DTD/wml_1.1.xml~")o/o>
<wml>
  <card id="studentloc" title="Student Location">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <br/>
      <br/>
      </p>
      <p>
        <a href="#checkstudentloc~heck" Student Location</a>
        <br/>
        <a href="#enterlocation">Enter Your Location</a>
        <br/>
      </p>
    </card>
    <card id="checkstudentloc" title="Check Student">
      <do type="accept" label="back">
        <prev/>
      </do>
      <do type="options" label="Main Menu">
        <go href="index.asp"/>
      </do>
      <do type="accept" label="Send">
        <go href="checklocation.asp" method="get">
          <postfield name="name" value="$(name)"/>
        </go>
      </do>
      <p align="center">
        <b>Near East</b>
        <br/>
        <br/>
      </p>
      <p>Enter the name of the student OR you can also write the first 2 alphabet of his/her name to
      check his/her location. <br/><br/>
      Student Name:<br/><input type="text" name="name" size="10"/><br/>

```

```

<anchor title="Send">Send
    <go href="checklocation.asp" method="get">
        <postfield name="name" value="$(name )"/>
    </go>
</anchor>
</p>
</card>
<card id="enterlocation" title="Enter Location">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <do type="accept" label="Send">
        <go href="enterlocation.asp" method="get">
            <postfield name="regno" value="$(regno)"/>
            <postfield name="name" value="S(name)"/>
            <postfield name="lname" value="S(lname)"/>
            <postfield name="email" value="S(email)"/>
            <postfield name="location" value="S(location)"/>
        </go>
    </do>
    <p align="center">
        <b>Near East</b>
        <hr/>
        <br/>
    </p>
    <p>Enter Your Registration Number, Name, Last Name, E-mail and location for your Teachers
and Friends, so they can easily contact you.<br/><br/>
Registration No:<br/><input format="9N" name="regno" size="10"/><br/>
Name:<br/><input type="text" name="name" size="20"/><br/>
Last Name:<br/><input type="text" name="lname" size="20"/><br/>
E-mail:<br/><input type="text" name="email" size="30"/><br/>
Location:<br/><input type="text" name="location" size="200"/><br/>
    <anchor title="Send">Send
        <go href="enterlocation.asp" method="get">
            <postfield name="regno" value="S(regno)"/>
            <postfield name="name" value="S(name)"/>
            <postfield name="lname" value="S(lname)"/>
            <postfield name="email" value="S(email)"/>
            <postfield name="location" value="S(location)"/>
        </go>
    </anchor>
</p>
</card>
</wnil>

```

newssubj.asp

```
<% Response.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version="" .O""?<!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN""""http://www.wapforum.org/DTD/wml_1.1.xml"">)o/o>
<wml>
<card id="newssubj" tide="News Subjects">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" f>
  </do>
  <do type="accept" label="Send">
    <go href="news.asp" method="get">
      <postfield name="subject" value="$(subject)"/>
    </go>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
</p></o
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select subject from news"
set rs = conn.Execute(sql)
o/o>
<lp>
<p>Select any Subject from option list to check the related news:<br/>
<select name="subject">
<% Do while not rs.EOF
Response.Write "<option value="&rs("subject")&"">&rs("subject")&"</option>" & vbcrlf
rs.MoveNext
loop
o/o>
</select>
<lp>
</lo
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>
```

rectormess.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
<%Response.write("<?xml version=?"I .0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTDWML 1.1//EN"" "http://www.wapforum.org/DTD/wml_1.1.xml""")%>
<wml>
<card id="rectormess" title="Rector Message">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
<p></p>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from RectorMessage"
set rs= conn.Execute(sql)
o/o></p>
<p></oResponse.Writers("message")%></p>
</o
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>
```

admission.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion="" 1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM/IDTD WML 1.1//EN"" "http://www.wapforum.org/DTD/wml_1.1.xml""")%>
<wml>
  <card id="admission" title="Admission">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
```

```

<p align="center">
  <b>Near East</b>
  <br/>
  <br/>
  <Ip>
  <p>
    <a href="transferstudent.asp">Transfer Students</a>
    <br/>
    <a href="documents.asp">Documents Required</a>
    <br/><br/>
  </p>
<p></p>

```

```

dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from admission"
set rs = conn.Execute(sql)
o/o></p>
<p></oResponse.Write rs("admission")o/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

living.asp

```

~/oResponse.ContentType="text/vnd.wap.wml"%>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC""
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml""")%>
<wml>
  <card id="living" title="Living">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  <Ip>
  <p></p>

```

```

dim sql

```

```

set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString= "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from Jiving"
set rs= conn.Execute(sql)
'Ve<lp>
<p></oResponse.Write rs("living")%></p>
'Ve
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
'Ve
</card>
</wml>

```

calendar.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o->
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
1/WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="calendar" title="Calendar">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p><a href="falltenn.asp">Fall Term</a><br/>
<a href="springterm.asp">Spring Tenn</a><br/>
<a href="suminertenn.asp">Suminer Term</a><br/>
</p>
</card>
</wml>

```

training.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o->
<%Response.write("<?xml version=""1.0""~!DOCTYPE wml PUBLIC""-
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="training" title="Training">

```



```

<do type="accept" label="back"> >
    <prev/>
</do>
<do type="options" label="Main Menu">
    <go href="index.asp" />
</do>
<p align="center">
    <b>Near East</b>
<br/>
<hr/>
</p>
<p></p>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath("db/neufaculty.mdb")
conn.open
sql="Select * from training"
set rs = conn.Execute(sql)
'10></p>
<p><%Response.Write rs("training")o/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn= Nothing
o/o>
</card>
</wml>

```

campuslife.asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version=""}.O""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM/IDTD WML 1.1/EN- ""http://www.wapforwn.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="campuslife" title="Campus Life">>
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
    <br/>
    <br/>
    </p>
    <p>
        <a href="postoffice.asp">Post Office</a>

```

```

        <br/>
        <a href="bank.asp">Bank</a>
        <br/>
        <a href="swimmingpool.asp">Swimming Pool</a>
        <br/>
        <a href="cinema.asp">Cinema Club</a>
        <br/>
        <a href="culture.asp">CulturalActivities</a>
        <br/>
        <a href="transportation.asp">Transportation</a>
    </p>
</cmd>
</wml>

```

sport.asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN- ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="sports" title="Sports">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
    <br/>
    <br/>
    </p>
<p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from sport"
set rs = conn.Execute(sql)
%></p>
<p></oResponse.Write rs("sport")</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/>
</card>
</wml>

```

liaison.asp

```
<?xml version="1.0"?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN "" "http://www.wapforum.org/DTD/wml_1.1.xml" >
<wml>
<card id="liaison" tide="Liasion Office">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <do type="accept" label="Send">
    <go href="Jiasionaddress.asp" method="get">
      <postfield name="office" value="$(office)"/>
    </go>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
    <Ip>
    <p><.4.4,
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select office from liaison"
set rs= conn.Execute(sql)
0/0>
<Ip>
<p>Select Office from option list to check the related Address/telephone/email:<br/>
<select name="office ">
<% Do while not rs.EOF
Response.Write "<option value=" &rs("office")&">" &rs(!"office")&"</option>"& vbcrlf
rs.MoveNext
loop
0/0>
</select>
<Ip>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
0/0>
</card>
</wml>
```

fatuity.asp

```
<41/oResponse.ContentType="text/vnd.wap.wml"%>
<%Response.writeC'<?xml version="1.0"?><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD/WML 1.1//EN"" "http://www.wapforum.org/DID/wml_1.1.xml">')o/o>
<wml>
  <card id="faculty" title="Faculty">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <br/>
      <br/>
      <lp>
        <p>
          <a href="engineering.asp">Engineering</a>
          <br/>
          <u>Economics and Administrative Sciences</u>
          <br/>
          <u>Architecture</u>
          <br/>
          <u>Arts and Sciences</u>
          <br/>
          <u>Maritime Studies</u>
          <br/>
          <u>Law</u>
          <br/>
          <u>Communication</u>
          <br/>
          <u>Tourism and Hotel</u>
          <br/>
          <u>English</u>
          <br/>
          <u>Physical Education and Sports</u>
          <br/>
        </p>
      </lp>
    </card>
  </wml>
```

laboratories.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
~</oResponse.writeC'<?xml version="1.0"?><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD/WML 1.1//EN"" "http://www.wapforum.org/DID/wml_1.1.xml">')o/o>
<wml>
  <card id="laboratories" title="Laboratories">
    <do type="accept" label="back">
```

```

    <prev/>
  </do>
  <do type="ffoptionsit label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <hr/>
    <hr/>
  </p>
  <p>
    <a href="generalphys.asp">General Physical Lab</a>
    <hr/>
    <a href="Kchemistry.asp">Chemistry Lab</a>
    <hr/>
    <a href="pclabl.asp">PC Lab 1</a>
    <br/>
    <a href="pclab2.asp">PC Lab 2</a>
    <br/>
    <a href="circuittheory.asp">Circuit Theory Design</a>
    <hr/>
    <a href="electronics.asp">Electronics Lab</a>
    <br/>
    <a href="logiccircuit.asp">Logic Circuit Design Lab</a>
    <br/>
    <a href="controlsys.asp">Control Systems Lab</a>
    <br/>
    <a href="microprocessor.asp">Microprocessor Lab</a>
    <br/>
    <a href="electricalmeasure.asp">Electrical Measurements Lab</a>
    <br/>
    <a href="communicationsys.asp">Communication System Lab</a>
    <br/>
    <a href="hydrolicwater.asp">Hydrolic and Water Resources Lab</a>
    <hr/>
    <a href="materialconstruct.asp">Materials of Construction Lab</a>
    <br/>
    <a href="soilmechanics.asp">Soil Mechanics Lab</a>
    <br/>
    <a href="structuralmech.asp">Structural Mechanics Lab</a>
    <br/>
    <a href="surveying.asp">Surveying and Geodesy Lab</a>
    <hr/>
    <a href="computerlab.asp">Computer Lab</a>
    <br/>
    <a href="multipurpose.asp">Multipurpose Machine Shop</a>
    <br/>
    <a href="library.asp">Library</a>
    <br/>
    <a href="computercenter.asp">Computer Center</a>
    <br/>
  </p>

```

```
</p>
</card>
</wml>
```

result.asp

```
~!c>Response.ContentType="text/vnd.wap.wml"%>
<%Response.WriteC'<?xmlversion="" 1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EW" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="resuh" title="Result">
  <do type="facept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
  <p></p>
  dim sql,regno
  regno = Request.QueryString("regno")
  set conn= server.createObject("adodb.connection")
  set rs = server.createObject("adodb.recordset")
  conn.Provider= "Microsoft.Jet.OLEDB.4.0"
  conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
  conn.open
  sql="Select studentid,firstname,lastname,courseid,coursename,coursresult from studentresuh
  where studentid = m&regno&""
  set rs= conn.Execute(sql)
  o/o>
  <p><b></b></p>
  ~/oResponse.Write rs("studentid")o/o><b></b><br/>
  ~/oResponse.Write rs("firstname")o/~oResponse.Write " "%></p>
  rs("lastname")o/o><br/><br/>
  <% Do while not rs.EOFo/o>
  <b~oResponse.Write rs("courseid")o/o></b><br/>
  <%Response.Write rs("coursename")%><br/>
  <b>Result: ~/oResponse Write rs("coursresult")o/o><br/><br/>
  <%rs.MoveNext
  loop
  o/o>
  </p>
  <%
  rs.Close
  Set rs= Nothing
  conn.Close
  Set conn = Nothing
```

```
o/o>
</card>
</wml>
```

topic.asp

```
~/oResponse.ContentType="text/vnd.wap.wml"o/o>
~/oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC"-
//WAPFORUM//DTD WML 1.1//EN"" "http://www.wapforum.org/DTD/wml_1.1.xml">")%>
<wml>
<card id="topic" title="Next Topic">>
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
    <Ip>
  <p></o>
  dim sql,courseid
  courseid = Request.QueryString("subcode")
  set conn= server.createObject("adodb.connection")
  set rs = server.createObject("adodb.recordset")
  conn.Provider = "Microsoft.Jet.OLEDB.4.0"
  conn.ConnectionString = "Data Source=" & Server.MapPath("db/neufaculty.mdb")
  conn.open
  sql="Select courseid,coursename,topic,date from topic where courseid = m&courseid&""
  set rs = conn.Execute(sql)
  o/o>
  <Ip>
  <p><b><%Response.Write rs("courseid")o/o></b><br/>
  <%Response.Write rs("coursename")%><br/><br/>
  <b>Topic:</b><br/><%Response.Write rs("topic")%><br/><br/>
  <b>Date:</b><br/><%Response.Write rs("date")o/o><br/>
  </p>
  <%
  rs.Close
  Set rs = Nothing
  conn.Close
  Set conn = Nothing
  o/o>
  </card>
</wml>
```

search.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTDWML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xmlim>")o/o>
<wml>
<card id="ahminiresult" title="Alumni Result">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
  <p><%
dim sql,name
name= Trim(Request("name"))
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.Connection.String= "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from alumni where fustname like '%"&name&"%' or lastname like
 '%"&name&"%"
set rs= conn.Execute(sql)
o/o>
  </p>
  <p></oDo while not rs.EOF%>
  <b><%Response.Write rs("firstname")%><%Response.Write " "o/o></oResponse.Write
rs("lastname")%></b><br/>
  City: <%Response.Write rs("city")%><br/>
  Email: </oResponse.Write rs("email")o/o><br/><br/>
  </orsMoveNext
loop
%>
</p>
</o>
rs.Close
Set rs= Nothing
conn.Close
Set conn= Nothing
o/o>
</card>
</wml>
```


enterlocation.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC '-
//WAPFORUM/IDTD WML 1.1/EN'' 'http://www.wapforum.org/DTD/wml_1.1.xml''>")o/o>

<wml>
<card id="enterloc" title="Location Saved">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  </p>
</card>
dim sql,sql1,sqJ2,regno,name,lname,email)ocation
regno = Request.QueryString("regno")
name= Request.QueryString("name")
lname = Request.QueryString("lname")
email = Request.QueryString("email")
location = Request.QueryString("location")
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
set rs1 = server.createObject("adodb.recordset")
set rs2 = server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql1="Select studentid from studentlocation where studentid="&regno&"
setrs1 = conn.Execute(sql1)
ifrs1.EOF dien
  rsl =true
else
  rsl =false
end if
ifrs1 then
  sql="Insert into studentlocation (studentid,firstname,lastname,email,location)values
("&regno&" , "&name&" , "&lname&" , "&email&" , "&location&"
  set rs= conn.Execute(sql)
else
  sql2="Update studentlocation set firstname
="&name&" , lastname="&lname&" , email="&email&" , location="&location&" where
studentid="&regno&"
  rs2 = conn.Execute(sql2)
end if
Response.Write "your Location is Successfully saved..."o/o>
```

```

<br/><br/><a href="index.asp">Home</a>
</p>
<%
Set rs = Nothing
set rs1 = Nothing
set rs2 = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

news.asp

```

<?oResponse.ContentType="text/vnd.wap.wml"o/o>
<?oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="news" title="News">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
<p><?o
dim sql,subject
subject= RequestQueryString("subject")
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from news where subject = "&subject&""
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><?oResponse.Write rs("subject,.)o/o></b><br/>
<?oResponse.Writers("news")o/o><br/><br/>
<b>Date: </b><%Response.Write rs("date")o/o><br/>
<b>Time: </b><?oResponse.Write rs("time")o/o><br/>
</p>
<?o
rs.Close
Set rs = Nothing
conn.Close

```

Set conn = Nothing

o/o>

<Icard>

</wml>

staff.asp

</oResponse.ContentType="text/vnd.wap.wml"o/o>

<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""

//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>

<wml>

<card id="staff" title="Staff">

<do type="accept" label="back">

<prev/>

</do>

<do type="options" label="Main Menu">

<go href="index.asp"/>

</do>

<p align="center">

Near East

<hr/>

</p>

<p>

Members of Staff Administrative and Academic

Academic

Lab Assistants

Administrative

</p>

</card>

</wml>

seeall.asp

</oResponse.ContentType="text/vnd.wap.wml"o/o>

<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""

//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>

<wml>

<card id="alumniresult" title="Alumni Result">

<do type="accept" label="back">

<prev/>

</do>

<do type="options" label="Main Menu">

<go href="index.asp"/>

</do>

<p align="center">

```

    <b>Near East</b>
<br/>
<br/>
</p>
<p><°lo
dim sqlname
set conn= server.createobject('adodb.connection')
set rs= server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from alumni"
set rs = conn.Execute(sql)
o/o>
</p>
<p><°/o Do while not rs.EOF/o>
<b><°loResponse.Writers("firstname")o/o><%Response.Write " 'lo/o><°/oResponse.Write
rs("lastname")o/o></b><br/>
City: <°/oResponse.Write rs("city")o/o><br/>
Email: <°/oResponse.Write rs("email")o/o><br/><br/>
<°/oResponse.MoveNext
loop
o/o>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

transferstudent.asp

```

<°loResponse.ContentType="text/vnd.wap.wml"o/o>
<°loResponse.write("<?xmlversion=""! .O""?<!DOCTYPE wml PUBLIC '
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="transferstudent" title="Transfer Student">
    <do type="facept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
        <hr/>
        <br/>
    </p>

```

```

<p~/o
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuwap.mdb")
conn.open
sql="Select * from transferstudent"
set rs= conn.Execute(sql)
'1o></p>
<p><%Response.Write rs("transfstudent")%/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

documents.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version='1.0'><!DOCTYPE winJ PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">)o/o>
<wml>
<card id="documents" title="Documents">
<do type="accept" label="back">>
<prevl>
</do>
<do type="optioos" label="Main Menu">
<go href="index.asp"1>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p><%
dim sq)
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.CoimectionString = "Data Source=" & Server.MapPath ("db/neufacuJty.mdb")
conn.open
sql="Select * from documents"
set rs = conn.Execute(sql)
o/o>
</p>
<p>The following documents are required for registration:<br/></p>
<p~/o Do while not rs.BOP%>

```

```

<b><% Response.Write rs("number")o/o><% Response.Write " " . "%><lb>
</oResponse.Write rs("requirement")%>
<br><br/>
</ors.MoveNext
loop
%>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

falltenn.asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.writeC<?xml version="1.0" ?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM/DTD WML 1.1//EN- "http://www.wapfonmi.org/DTD/wml_1.1.xml">1%>
<wml>
<card id="fallterm" title="Fall Term">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East<lb>
    <br>
    <br>
  </p>
<p></o
dim sql,name
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath("db/neofaculty.mdb")
conn.open
sql="Select * from fallterm"
set rs = conn.Execute(sql)
%>
</p>
<p></o Do while not rs.EOF%>
<b><% Response.Write rs("date")o/o></oResponse.Write " "o/o></oResponse.Write
rs("month")%>
</oResponse.Write " "o/o><% Response.Writers("year")%></b><br/>
<%Response.Writers("comments")%>
<br/><br/>

```

```

<%rs.MoveNext
loop
o/o>
</p>
<°lo
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

spring1erm.asp

```

</oResponse.CootentType="text/vnd.wap.wml1"%>
</oResponse.write("<?xmlversion=√T.O""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card i<f::"springtenn" title="Spring Term">
  <dotype="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go bref="index.asp"/>
  </do>
  <p align="center">>
    <b>Near East</b>
    <br/>
    <br/>
    <Ip>
  <p></o
dim sqlname
set conn= server.createObject("adodb.connection")
set rs = server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="SeJect • from springterm"
set rs = conn.Execute(sql)
%>
<Ip>
<p></o Do while notrs.EOF%>
<b></oResponse.Writers("date")%></oResponse.Write" "%><%Response.Write
rs("month"J/o>
</oResponse.Write" "o/o></oResponse.Writers("year")%></b>41r/>
</oResponse.Writers("comments")o/o>
<br/><br/>
<%rs.MoveNext
loop
o/o>

```



```

</p>
</o>
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

summerterm.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC
//WAPFORUM/DTD WML 1.1//ENttt 'http://www.wapforum.org/DTD/wml_1.1.xml'">>o/o>
<wml>
<card id="summerterm" title="Summer Term">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">>
<go href="index.asp"/>
</do>
<p align="center">>
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql.name
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from summertem"
set rs = conn.Execute(sql)
o/o>
</p>
<p></o Do while not rs.EOFo/o>
<b></oResponse.Write rs("date")o/o></oResponse.Write " "o/o></oResponse.Write
rs("monthl*")o/o>
</oResponse.Write " "o/o></oResponse.Write rs("year")o/o></b><br/>
</oResponse.Write rs("comments")o/o>
<br/><br/>
</ors.MoveNext
loop
o/o>
</p>
</o>
rs.Close

```

```
Set rs= Nothing
com.Close
Set conn = Nothing
o/o>
</card>
</wml>
```

postoffice.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version="1.0"><!DOCTYPEwml PUBLIC "-//WAPFORUM//DTD WML 1.1/EN" "http://www.wapfonun.org/DTD/wml_1.1.xml">")o/o>
<wml>
  <card id="postoffice" title="Post Office">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <br/>
      <br/>
    </p>
    <p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from postoffice"
set rs = conn.Execute(sql)
o/o></p>
<p><%Response.Write rs("postoffice")o/o></p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set com = Nothing
o/o>
</card>
</wml>
```

bank.asp

```
</oR.esponse.ContentType="text/vnd.wap.wml"o/o>
</oResixmse.write("<?xml version="1.0"><!DOCTYPE wml PUBLIC "-//WAPFORUM//DTD WML 1.1/EN" "http://www.wapforum.org/DTD/wml_1.1.xml">")o/o>
<wml>
```

```

<card id="bank" title="Bank">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  </p>
<p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.CcensionString= "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql='Select * from bank"
set rs= conn.Execute(sq))
o/o></p>
~/oResponse. Write rs("bank")o/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn= Nothing
%>
</card>
</wml>

```

swimmingpoolasp

```

<%Response.ContentType="text/vnd.wap.wml"%>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="swimmingpool" title="Swimming Pool">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  </p>
<p></o

```

```

dim sql
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from swimmingpool"
set rs= conn.Execute(sql)
%><Ip>
<p></oResponse.Writers("swimmingpool")%></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

cinema.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="cinema" title="Cinema Club">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<be-NearEast<lb>
<hr/>
<br/>
</p>
<p></oResponse.Write rs("cinema")o/o></p>
<%
rs.Close
Setrs = Nothing

```

```
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>
```

culture.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="culture" title="Culture Activities">>
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp" />
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p><%
dim sql
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodh.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath("db/neufaculty.mdb")
conn.open
sql="Select * from culture"
set rs = conn.Execute(sql)
%></p>
<p></oResponse.Writers("culture")o/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>
```

transportation.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapfonun.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="transportation" title="Transportation">
```

```

<do type="accept" label="back">
    <prev/>
</do>
<do type="options" label="Main Menu">
    <go href="index.asp"/>
</do>
<p align="center">
    <b>Near East</b>
<br/>
<br/>
</p>
<p></p>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from transportation"
set rs = conn.Execute(sql)
o/o></p>
<p><%Response.Write rs("transportation")o/o></p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

liasionaddress.asp

```

<%Response.ContentType=~xtl/vnd.wap.wml"%>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ''
//WAPFORUM//DTD WML 1.1//EN'' 'http://www.wapforum.org/DTD/wml_1.1.xmlm'>")o/o>
<wml>
<card id="officeaddress" title="Office Address">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
<p align="center">
    <b>Near East</b>
<br/>
<br/>
</p>
<p><%
dim sqtoffice

```

```

office= Request.QueryString("office")
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString= "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from liasion where office = "&office&""
set rs = conn.Execute(sql)
o/iv
<Ip>
<p><h><°loResponse.Writers("office")o/o></b><br><br>
<%Response.Write rs("address")o/o><br>
<%Response.Write rs("pobox")o/iv><br>
<b>Tel: <lb> <%Response.Write rs("tel")%><br>
<b>Fax: <lb> <%Response.Write rs(".fax")o/o><br>
<b>E-mail: <lb> <°loResponse.Writers("email ")%><br>
<Ip>
<°lo
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/iv
</card>
</wml>

```

engineering.asp

```

<°/oResponse.ContentType="text/vnd.wap.wml"%/iv
<%Response.write("<?xml version=""1.0""><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"/iv
<wml>
<card id="engineering" title="Engineering">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"v>
  </do>
  <p align="center">
    <b>Near East</b>
    <br>
    <br>
  </ft>
  <p>
    <a href="computereng.asp">Computer</a>
    <br>
    <u>Electrical and Electronic</u>
    <br>
    <u>Civil</u>
    <br>

```

```

    <u>Machanical</u>
    <br/>
  </p>
</card>
</wml>

```

adminacademic.asp

```

<!oResponse.ContentType="text/vnd.wap.wml"o/o>
<°A>Response.write("<?xmlversion=""LO""?<!DOCTYPE wml PUBLIC""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
  <card id="adminacademic" title="Admin and Academic">>
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">>
      <go bref="index.asp"/>
    </do>
    <p align="center">>
      <b>Near East</b>
      <br/>
      <br/>
    </p>
    <p><%
dimsql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from staff where title='Members of Staff Administrative and Academic"
set rs = conn.Execute(sql)
o/o>
<!p>
<p><b><%Response.Write rs("title")o/o></b><br/><br/>
<%Do while not rs.EOFo/o>
<b><%Response.Write rs("name")o/o></b><br/> .
</oResponse.Writers("post")o/o><br/><br/>
<%rs.MoveNext
loop
o/o>
<!p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```


staffacademic.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o->
<%Response.writef"<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"o/o->
<wml>
  <card id="staffacademic" title="Academic">
    <do type="accept" label="rback">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <br/>
      <br/>
    </p>
    <p></p>
    dim sql
    set conn= server.createobject("adodb.connection")
    set rs = server.createobject("adodb.recordset")
    conn.Provider= "Microsoft.Jet.OLEDB.4.0"
    conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufacuJty.mdb")
    conn.open
    sql="Select * from staff where title=' Academic'"
    set rs= conn.Execute(sql)
    o/o>
    </p>
    <p><b><%Response.Write rs("title")%><lb><br/><br/>
    </oDo while not rs.EOFo/o->
    <!><%Response.Writers("name")o/o-><lb><br/>
    <%Response.Write rs("post")o/o><br/><br/>
    </ors.MoveNext
    loop
  %>
</p>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>
```

labassistants.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/o>
~/oResponse.write("<?xml version=""1.0""?<!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="Jabassitants" title=="Lab Assistants">>
  <do type="accept" label="rback">
    <prev/>
  </do>
  <do type="optioos" label="Main Menu">
    <go href="index.asp" />
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
<p><°/o
dim sql

set conn= server.createobject("adodb.coonnection ")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath (.db/neufaculty.mdb")
conn.open
sql="Select * from staff where title="Lab Assistants""
set rs= conn.Execute(sql)
o/o>
</p>
<p><b><°/oResponse.Writers("title")o/o><lb><br/><br/>
<% Do while not rs.EOF/o>
<b><%Response: Write rs("name")o/o></b><br/>
~/oResponse: Write rs("post")o/o><br/><br/>
~/orsMoveNext
loop
o/o>
</p>
~/o
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</Icard>.
</wml>
```

administrative.asp

```
</oResponse.ContentType="text/vndwap.wml"o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")6/o>
<wml>
<card id="administrative" title="Administrative">>
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  </p>
<p><%
dim sql
set coon= server.createObject("adodb.conNECTION")
set rs = server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from staff where title='Administrative'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b></oResponse.Writers("title%></b><br/><br/>
</oDo while not rs.EOFo/o>
<b></oResponse.Write rs("name")o/o></b><br/>
</oResponse.Writers("post")o/o><br/><br/>
</ors.MoveNext
loop
%>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set coon = Nothing
%>
</card>
</wml>
```

geographicalphys.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")6/o>
```

```

<wml>
<card id="genemlphys" title="General Physics Lab">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="noptions" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  <Ip>
<p~/o
dim sql
set conn= server.createObject("adodb.connection")
set rs = server.createObject("adodb.recordset")
conn.Provider="Microsoft.JetOLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select tide,description from laboratories where title='General Physics Lahit'
set rs = conn.Execute(sql)
%>
<Ip>
<p><b><%Response.Write rs("title")><b><br/><br/>
</oDo while not rs.EOF%>
</oResponse.Writers("description")><br/><br/>
</ors.MoveNext
loop
%>
<Ip>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

chemistry.asp

```

<?oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<!xmlversion=""1.0""?<!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="chemisty" title="Chemistry">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="noptions" label="Main Menu">

```

```

        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
    </p>
    </p>
    <p></p>
    dim sql
    set con= server.createobject("adodb.connection")
    set rs= server.createobject("adodb.recordset")
    conn.Provider= "Microsoft.Jet.OLEDB.4.0"
    conn.ConnectionString = "Data Source=" & Server.MapPath ("db/Laboratories.mdb")
    con.open
    sql="Select title,description from laboratories where title='Chemistry Laboratory'"
    set rs= conn.Execute(sql)
    o/o>
    <lp>
    <p><b><%Response.Write rs("title")></b><br/><br/>
    <%Do while not rs.EOF%>
    </oResponse.Writers("description")><br/><br/>
    <%rs.MoveNext
    loop
    %>
    </p>
    </lo
    rs.Close
    Set rs = Nothing
    conn.Close
    Set conn = Nothing
    %>
    </card>
    </wm.J>

```

circuittheory .asp

```

</oResponse.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
/iWAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforwn.org/DTD/wml_1.1.xml"">")>
<wml>
<card id="circuittheory" title="Circuit Theory">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
    </p>
    <hr/>

```

```

</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionSiring = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Circuit Theory Design'"
set rs = conn.Execute(sql)
o/o>
</p>

```

```

<p><b><%Response.Write rs("title")%></b><br><br>
<%Do. while not rs.EOF/o>
<%Response.Write rs("description")o/o><br><br>
<%rs.MoveNext
loop
o/o>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

communicationsys.asp

```

</oResponse.ContentType="text/vnd. wap.wml"o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="communicationsys" title="Communication System">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")

```

```

conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select tide,description from laboratories where title='Communication System Lab'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b></oResponse.Write rs("title")</b><br><br>
<% Do while not rs.EOF %>
<% Response.Write rs("description")%><br><br>
</ors.MoveNext
loop
o/o>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

computercenter.asp

```

<% Response.ContentType="text/vnd.wap.wml" o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML L1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="computercenter" title="Computer Center">
  <do type="accept" label="back">
    <prev-/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" f>
  </do>
  <p align="center">
    <b>Near East</b>
    <br>
    <br/>
  </p>
<p></o
dim sql
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select tide,description from laboratories where title='Computer Center'"
set rs= conn.Execute(sql)
o/o>

```

```

</p>
<p><b></oResponse.Write rs(ntitle")o/o><lb><br><br>
</oDo while not rs.EOF/o>
</oResponse.Write rs("description")o/o><br><br>
</ors.MoveNext
loop
%>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

computerlab.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='1.0'?'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="computerlab" title="Computer Lab">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<hr/>
<br/>
</p>
<p></o
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider="Microsoft.JetOLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Computer Lab'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("title")o/o></b><br><br>
</oDo while not rs.EOF/o>
</oResponse.Writers("description")o/o><br><br>
</ors.MoveNext
loop

```



```

0/0>
</p>
~!o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
0/0>
</card>
</wml>

```

controlsys.asp

```

~/oResponse.ContentType="text/vnd.wap.wml"%>
<% Response.write("<?xml version=""LO""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM/IDTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"}°/o>
<wml>
<card id="controlsys" title="Control Systems">>
    <do type="accept" Jabel="rback">
        <prev/>
    </do>
    <do type="options" label="Main Menu">>
        <go href="index.asp"/>
    </do>
    <p align="center">>
        <b>Near East</b>
        <br/>
        <br/>
    </p>
<p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
coon.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Sejecttitle,description from laboratories where title='Control Systems Lab'"
set rs = conn.Execute(sql)
0/0>
</p>
<p><b></oResponse.Writers("title")%></b><hr/><br/>
<% Do while not rs.EOF°/o>
~/oResponse.Write rs("description")%><br/><br/>
~/ors.MoveNext
loop
0/0>
</p>
<%
rs.Close
Set rs= Nothing
conn.Close

```

Set conn = Nothing

o/o>

</card>

</wml>

electricaJmeasure.asp

</oResponse.ContentType="text/vndwap.wml"o/o>

</oResponse.write("<?xmlversion=?"1.0""?><!DOCTYPEwml PUBLIC ""-

//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>

<wml>

<card id="electricalmeasure" title="Electrical Measurement">

<do type="accept" label="back">

<:prev/>

</do>

<do type="options" label="Main Menu">

<go href="index.asp" />

</do>

<p align="center">

Near East

<Ip>

<p><4>o

dim sql

set conn= server.createobject("adodb.coonnection")

set rs = server.createobject("adodb.recordset")

coon.Provider= "Microsoft.Jet.OLEDB.4.0"

coon.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")

coon.open

sql="Select tide,description from laboratories where title=Electrical Measurements Lab"

set rs = conn.Execute{sql}

o/o>

<Ip>

<p><%Response.Write rs("title")%>

</oDo while not rs.EOF%>

<%Response.Write rs("description")%>

</ors.MoveNext

loop

o/o>

<Ip>

<%

rs.Close

Set rs=Nothing

conn.Close

Set conn = Nothing

o/o>

</card>

</wml>

electronics.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD/WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="eElectronics" title="Electronics Lab">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
</p>
<p><%
dim sql
set conn = server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Electronics Lab'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("title")></b><br/><br/>
<%Do while not rs.EOF/>
</oResponse.Writers("description")%><br/><br/>
<%rs.MoveNext
loop
o/o>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>
```

hydrolicwater.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD/WML 1.1/EN"" ""http://www.wapfonun.org/DTD/wml_1.1.xml"">")o/o>
<wml>
```

```

<card id="hydrolicwater" title="Hydrolic Water">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
</card>
dim sql
set conn= server.createobject("adodb.coneiction")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/Jaboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Hydrolic and Water Recources Lab'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b></oResponse.Writers("title")o/o></b><br/><br/>
<%Do while not rs.EOF%>
</oRespon.se.Writers("description")o/o><br/><br/>
</ors.MoveNext
loop
%>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

library.asp

```

</oResponse.ContentType=".text/vndwap.wml"%>
</oResponse.write("<?xmlversion=""1.0""?<fDOCTYPE wml PUBLIC""-
//WAPFORUM/IDTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wmJ_1.1.xmJ"">")%>
<wml>
<card id="ilmuy" title="Library">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>

```

```

        </do>
    <p align="center" >
        <b>Near East</b>
        <br/>
    </p>
</p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Library'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("title%></b><br><br>
<%Do while not rs.EOF>/e>
<%Response.Write rs("description" }'Yo><br><br>
<%rs.MoveNext
loop
%>
</fl>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

logiccircuit.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""! .O""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM/IDTD WML 1.1//EN""""http://www.wapfonnn.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="logiccircuit" title="Logic Circuit">>
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
<p align="center">
    <b>Near East</b>
    <br/>
    <br/>
</p>

```

```

<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString= "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Logic Circuit Design Lab'"
set rs = conn.Execute(sql)
%>
</p>
<p><4></o>Response.Writers("title")o/o<lb><br/><br/>
</o>Do while not rs.EOF%>
</o>Response.Writers("description")%><br/><br/>
</o>rs.MoveNext
loop
%>
</p>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

materialconstruct.asp

```

<% Response.ContentType="text/vnd.wap.wml"o/o>
</o>Response.write("<?xmlversion="" 1.0""?<!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//ENm' ""httpJ/www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="materialconstruct" title="Materials Construction">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">,
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString= "Data Srouce=" & Server.MapPath ("db/laboratories.mdb")

```

```

conn.open
sql='Select title,description from laboratories where title='Materials of Construction Lab'
set rs = conn.Execute(sql)
o/o>
<Ip>
<p><b></oResponse.Writers("title")%></b><br><br/>
<%Do while not rs.BOP/o>
<%Response.Write rs("description")%><br/><br/>
<%rs.MoveNext
loop
o/o>
<Ip>
<%
rs.Close
Set rs =Nothing
conn.Close
Set com = Nothing
o/o>
<Icard>
</wml>

```

multipurpose.asp

```

<%Response.Cont.entType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?<!DOCTYPE wml PUBLIC ""
1/WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="multipurpose" title="Multipurpose">>
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go href=""index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  <Ip>
  <p><b></oResponse.Writers("title")o/o></b><br><br/>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='Multipurpose Machine Shop'"
set rs = conn.Execute(sql)
o/o>
<Ip>
<p><b></oResponse.Writers("title")o/o></b><br><br/>

```

```

</oDo while not rs.EOF%>
</oResponse.Write rs("description")o/o><br/><br/>
</ors.MoveNext
loop
%>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

pclab2.asp

```

</oResponse.ContentType="text/vndwap.wml"o/o'>
</oResponse.write("<?xmlversion='1.0'><!DOCTYPE wml PUBLIC''
//WAPFORUM//DTD WML 1.1//EN'' 'http://www.wapfonun.org/DTD/wml_1.1.xml''>.,)%>
<wml>
<card id="pclab2" title="PC Lab2">
  <do type="accept" label="rback">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
<p></o
dim sql
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath('C:/db/Laboratories.mdb')
conn.open
sql="Select title,description from laboratories where title='PC Lab 2'"
set rs = conn.Execute(sql)
%>
</p>
<p><b></oResponse.Writers("title")%></b><br/><br/>
</oDo while not rs.EOF%>
</oResponse.Writers("description")%><br/><br/>
</ors.MoveNext
loop
%>
</p>

```



```

</o>
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

structuralmech.asp

```

<41/oResponse.ContentType="text/vndwap.wml"o/o>
<4/oResponse.write("<?xmlversion=?" 1.0""?><!DOCTYPEwml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"Y/o>
<wml>
<card id="stnucturalinech" title="StructuraJMechanics Lab">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">>
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConneccionString = "Data sowl"ce=" & Server.MapPath ("db/Jaboratories.mdb")
conn.open
sql="Select tide,description .from laboratories where title=~tructural Mechanics Lab""
set rs = conn.Execute(sql)
o/o>
</p>
<p><b></o>Re ponse.Write rs("title)o/></b><hr/><br/>
<4/oDo while not rs.BOP/o>
<4/oResponse.Writers("description ")o/o><br/><br/>
<41/ors.MoveNext
loop
o/o>
</p>
</o>
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>

```

```
</card>
</wml>
```

```
microprocessor .asp
```

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//W APFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
```

```
<wml>
```

```
<card id="microprocessor" title="Microprocessor">
```

```
<do type="accept" label="back">
```

```
<prev/>
```

```
</do>
```

```
<do type="options" label="Main Menu">>
```

```
<go href="index.asp"/>
```

```
</do>
```

```
<p align="center">
```

```
<b>Near East</b>
```

```
<br/>
```

```
<br/>
```

```
<!p>
```

```
<p><%
```

```
dim sql
```

```
set conn= server.createobject("adodb.connection")
```

```
set rs= server.createobject("adodb.recordset")
```

```
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
```

```
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
```

```
conn.open
```

```
sql="Select title,description from laboratories where title='Microprocessor Lab'"
```

```
set rs= conn.Execute(sql)
```

```
%>
```

```
<!p>
```

```
<p><b></oResponse.Writers("title")%></b><br/><br/>
```

```
</oDo while not rs.EOFo/o>
```

```
<%Response.Write rs("description")%><br/><br/>
```

```
</ors.MoveNext
```

```
loop
```

```
o/o>
```

```
<!p>
```

```
</lo
```

```
rs.Close
```

```
Set rs= Nothing
```

```
conn.Close
```

```
Set conn = Nothing
```

```
o/o>
```

```
</card>
```

```
</wml>
```

pdabl.asp

```
</oResponse.ContentType="text/vndwap.wml"o/o>
</oResponse.write("<?xml version=?"I .O""?><!DOCTYPE wml PUBLIC ""
1/WAPFORUMIIDTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml~"}°/o>
<wml>
<card id="pclab I" title="PC Lab I">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align:="center">
    <b>Near East</b>
    <br/>
    <br/>
    <Ip>
  <p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select title,description from laboratories where title='PC Lab I'"
set rs = conn.Execute(sql)
o/o>
<Ip>
<p><b></oResponse.Writers("title")o/o></b><br><br>
</oDo while not rs.EOF°/o>
<% Response.Write rs("description")o/o><br><br>
</ors.MoveNext
loop
o/o>
<Ip>
</lo
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</Icard>
</wml>
```

soilmthanics.asp

```
</oResponse.ContentType::e"text/vnd.wapwml"o/o>
</oResponse.write("<?xml version=?"I .O""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DID WML 1.1//EN"" ""http://www.wapfonun.org/DTD/wml_1.1.xml">")o/o>
<wml>
```

```

<card id="soilmechanics" title="Soil Mechanics Lab">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br/>
  <br/>
  </p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="SeJecttitle,description from laboratories where title=Soil Mechanics Lab"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Writers("title")o/o><lb><br><br>
<%Do while not rs.EOF/o>
<%Response.Write rs("description")o/o><br><br>
<%rs.MoveNext
loop
o/o>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

surveying.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"}o/o>
<wml>
  <card id="surveying" title="Surveying Geodesy">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
  </card>
</wml>

```

```

        </do>
    <p align="center">
        <b>Near East</b>
        <br/>
        <br/>
    </p>
</o>
dim sql

set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/laboratories.mdb")
conn.open
sql="Select tide,description from laboratories where title='Surveying and Geodesy Lab'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("title")></b><br><br>
<%Do while not rs.EOF%>
</oResponse.Write rs("description")><br><br>
<%rs.MoveNext
loop
%>
</p>
</lo
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

computereng.asp

```

</oResponse.ContentType="text/vndwap.wml" o/6>
</oResponse.write("<?xml version=""1.0""?<!DOCTYPE wml PUBLIC ""-
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforinn.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="computereng" title="Computer Engineering">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
    <p align="center">
        <b>Near East</b>
        <hr/>
        <br/>

```

```

</p>
<p>
  <a href="\mdergraduate.asp">Undergraduate</a>
    <br/>
  <a href="graduate.asp">Graduate</a>
    <br/>
  <a href="doctorate.asp">Doctorate</a>
    <br/>
</p>
</card>
</wml>

```

undergraduate.asp

```

<41/oResponse.CootentType="text/vnd.wapwml"o/o>
<41/oResponse.write("<?xml version=""1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml1_1.xml""")o/o>
<wml>
  <card id="udergraduate" title="Undergraduate">
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>Near East</b>
      <br/>
      <br/>
    </p>
    <p>
      <a href="ufirstyear.asp">First Year</a>
        <br/>
      <a href="useoondyear.asp">Second Year</a>
        <br/>
      <a href="uthidyear.asp">Third Year</a>
        <br/>
      <a href="ufourthyear.asp">Fourth Year</a>
        <br/>
      <a href="uteclinicalelectasp">Technical Elective</a>
        <br/>
      <a href="coursedescription.asp">Course Description</a>
        <br/>
    </p>
  </card>
</wml>

```

graduate.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
  <card id="graduate" title="Graduate">
    <do type="accept" label="tback">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href="index.asp"/>
    </do>
    <p align="center">
      <b>-Near East</b>
      <br/>
      <br/>
    </p>
    <a href="aimscope.asp">Aim and Scope</a>
      <hr/>
    <a href="periodstudy.asp">Period of Study</a>
      <br/>
    <a href="appointthesissuperv.asp">Appointment of Thesis Supervisor</a>
      <br/>
    <a href="submdefflthesis.asp">Submission and Deffence of the Thesis</a>
      <hr/>
    <a href="masterdiploma.asp">The Master Diploma</a>
      <br/>
    <a href="mastemdmissioo.asp">Admission</a>
      <br/>
    <a href="tuitionfee.asp">Tuition Fee</a>
      <br/>
    <a href="livingcost.asp">Living Cost and Accomodation</a>
      <br/>
    <a href="gradcourses.asp~duate...> Courses</a>
      <br/>
    <a href="gradcoursefdescriptioo.asp">Course Description</a>
      <br/>
  </p>
</card>
</wml>
```

doctorate.asp

```
</oResponse.ContentType="text/vnd.wap.wml"%>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
  <card id="doctomte" title="Doctorate">
    <do type="accept" label="tback">
```

```

        <prev/>
    </do>
<do type="options" label="Main Menu">
    <go href="index.asp"/>
</do>
<p align="center">
    <b>Near East</b>
<hr/>
<br/>
<p>
    <a href="daimscope.asp">Aim and Scope</a>
    <br/>
    <a href="dperiodstudy.asp">Period of Study</a>
    <br/>
    <a href="dappointthesissuperv.asp">Appointment of Dissertation Supervisor</a>
    <br/>
    <a href="dqualifyexam.asp">Qualifying Examination</a>
    <br/>
    <a href="dissersupervision.asp">Dissertation Supervision Committees</a>
    <br/>
    <a href="defence~tion.asp">Defence of the Dissertation Proposal</a>
    <br/>
    <a href="submdefence.asp">Submission and Defence of the Dissertation</a>
    <br/>
    <a href="dostoratedegr.asp">Doctorate Degree</a>
    <br/>
    <a href="doctomteadmission.asp">Admission</a>
    <br/>
    <a href="dtuitionfees.asp">Tuition Fees</a>
    <br/>
    <a href="dcourses.asp">PH.D Courses</a>
    <br/>
</p>
</card>
</wml>

```

ufirstyear.asp

```

<?xml:response contentType="text/vnd.wap.wml"%>
<?xml:response write("<?xmlversion='1.0'><!DOCTYPE wml PUBLIC ''-
//WAPFORUM/IDTD WML 1.1//EN'' '1http://www.wapforum.org/DTD/wml_1.1.xml'")%>
<wml>
<card id="firstyear" title="First Year">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>

```



```

<p align="center">
  <b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql,sqll
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
set rsl = server.CreateObject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data SOW"Ce=" & Server.MapPath ("db/neufacu1ty.mdb")
conn.open

sql="Select * from udergradcourses where year='First Year' and semester='Fall Semester'"
set rs= conn.Execute(sql)
sqll="Select * from udergradcourses where year='First Year' and semester='Spring Semester'"
set rsl = conn.Execute(sqll)
%>
<Ip>
<p><b></o>Response.Writers("year")o/o></b><br/>
<%Response.Write rs("semester")o/o><br/><br/>
<%Do while not rs.EOF'>
<b>Code: <%Response.Write rs("c_id")o/o></b><br/>
<b>Title:</b><brJx:G/oResponse.Write rs('~le_n)%><br/>
<b>Credit: <%Response.Write rs("credit")o/o></b><br/><br/>
<%rs.MoveNext
loop
o/o>
<Ip>
<p><b><%Response.Write rsl("year")%></b><br/>
<%Response.Write rsl ("semester")o/o><br/><br/>
</o>Do while not rsl .EOF'>
<b>Code: </o>Response.Writersl("c_id")o/o></b><br/>
<b>Title:</b><brJx:G/oResponse.Write rsl ("title")o/o><br/>
<b>Credit: </o>Response.Write rsl ("credit")o/o></b><br/><br/>
</o>rsl.MoveNext
loop
o/o>
<Ip>
</o>
rs.Close
Set rs = Nothing
rsl.Close
set rsl = Nothing
conn.Close
Set conn = Nothing
o/o>
<Icard>
</wml>

```

usecondyear.asp

```
<?xml version="1.0" ?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/ENim ""http://www.wapforum.org/DTD/wml_1.1.xml"">/o>
<wml>
<card id="secondyear" title="Second Year">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" />
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <hr/>
  </p>
  <p><%
dim sql,sqll
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.reoordset")
set rsl = server.CreateObject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from udergradcourses where year='Second Year' and semester='Fall Semester'"
set rs= conn.Execute(sql)
sqll ="Select * from udergradcourses where year='Second Year' and semester='Spring Semester'"
set rsl = conn.Execute(sqll)
o/o>
</p>
<p><b><%R~se.Write rs("year")o/o></b><br/>
</oResponse.Writers("semester")o/o><br/>
</oDo while not rs.EOP/o>
<b>Code: <%Response.Write rs("c_id")o/o></b><br/>
<b>Title:</b><br/></oResponse.Write rs("title")o/o><br/>
<b>Credit: </oResponse.Write rs("credit")%></b><br/><br/>
~/ors.MoveNext
loop
o/o>
</p>
<p><b></oResponse.Writers I("year")o/o></b><br/>
</oResponse.Writersl ("semester")o/o><br/><br/>
</oDo while not rs1.EOFo/o>
<b>Code: </oResponse.Write rsl("c_id")o/o></b><br/>
<b>Title:</b><br/></oResponse.Write rsl("title")o/o><br/>
<b>Credit: </oResponse.Write rsl("credit")o/o></b><br/><br/>
</orsl.MoveNext
loop
o/o>
```

```

</p>
</td>
rs.Close
Set rs = Nothing
rsl.Close
set rsl = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

utbirdyear .asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion=""! .O""?><!DOCTYPEwml PUBLIC ""
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapfonnn.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="thirdyear" tide="Third Year">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">>
<go href="index.asp"/>
</do>
<p align="center">>
<b>Near East</b>
<br/>
<br/>
</p>
<p></o
dim sql,sql1
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
set rsl = server.CreateObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from udergradcourses where year='Third Year' and semester='Fall Semester'"
set rs = conn.Execute(sql)
sql1 ="Select * from udergradcourses where year='Third Year' and semester='Spring Semester'"
set rsl = conn.Execute(sql1)
o/o>
</p>
<p><b><% Response.Writers("year")o/o></b><br/>
</oResponse.Writers("semester"}o/o><br/><br/>
<% Do while not rs.EOFo/o>
<b>Code: <% Response.Write rs("c_id")o/o></b><br/>
<b>Title:<br/><% Response.Write rs("titlejo/o><br/>
<b>Credit: </oResponse.Write rs("credit")o/o></b><br/><br/>
<%rs.MoveNext

```

```

loop
%>
<lp>
<p><b></oResponse.Write rs1 ("year")o/o><lb><br/>
,<-OfResponse.Write rs1 {"semester"}o/o><br><br/>
,<-OfDo while not rs1.EOF%>
<b>Code: <-OfResponse.Write rs1 ("c_id")o/o></b><br/>
<b> Title:</b><br></oResponse. Write rs1 {"title"}o/o><br/>
<b>Credit: <%Response. Write rs1 ({credit})%></b><br><br/>
,<-0/rs1.MoveNext
loop
o/o>
<lp>
,<-Of
rs.Close
Set rs = Nothing
rs1.Close
set rs1 = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

ufourthyear .asp

```

,<-OfResponse.ContentType="text/vnd.wap.wml"o/o>
,<-OfResponse.write("<?xmlversion::""1.0""?<!DOCTYPEwml PUBLIC""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml~")"/o>
<wml>
<card id="fourthyear" title="Fourth Year">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <hr/>
  </p>
<p><%
dim sql,sql1
set conn= server.createobject("adodb.connection")
set rs = server.createobject{"adodb.recordset"}
set rs1 = server.CreateObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select * from udergradcourses where year='Fourth Year' and semester='Fall Semester"

```

```

set rs = conn.Execute(sql)
sql="Select * from udergradcourses where year='Fourth Year' and semester='Spring Semester'"
set rsl = conn.Execute(sql)
%>
</p>
<p>4}</oResponse.Write rs("year")o/o></b><br/>
<% Response.Write rs("semester")%><br/><br/>
</oDo while not rs.EOFo/o>
<b>Code: <% Response.Write rs{"c_id.})o/o></b><br/>
<b>Title:</b><br/></oResponse.Write rs("title")o/o><br/>
<b>Credit: <% Response. Write rs("credit")o/o></b><br/><br/>
</ors.MoveNext
loop
o/o>
<Ip>
<p><b><% Response. Write rsl ("year")o/o></b><br/>
<% Response. Write rsl ("semester")%><br/><br/>
</oDo while not rsl .EOFo/o>
<b>Code: <% Response. Write rsl C'cjd")o/o.></b><br/>
<b>Title:</b><br/></oResponse. Write rsl ("title")o/e><br/>
<b>Credit: </oResponse. Write rsl ("credit")%></b><br/><br/>
</ors.MoveNext
loop
o/o>
<Ip>
</o
rs.Close
Set rs = Nothing
rs l.Close
set rsl = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

utbechnicalelect.asp

```

<:%Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version=""1.0""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="technicalelective" title="TTechnical Electives">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go bref="index.asp"/>
  </do>
<p align="center">
  <b>Near East</b>

```

```

<br/>
<br/>
<!p>
~!o
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet. OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open

sql="Select * from udeig:radcourses where year="TechnicalElectives"
set rs = conn.Execute(sql)
%>
<!p>
<p><b><%Response.Write rs("year")o/o></b><br/>
<br/>
<%Do while not rs.EOF%>
<b>Code: <%Response.Write rs("c_id")%></b><br/>
<b>Title:</b><br/><%Response.Write rs("title")o/o><br/>
<b>Credit: <%Response.Write rs("credit")o/o></b><br/><br/>
</ors.MoveNext
loop
%>
<!p>
</!o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

counedescription.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</eResponse.write("<?xmlversion=""1.0""?><!DOCTYPE wml1PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.I.xml"">f/o>
<wml>
<card id="coursedescription" title="Course: Description">
  <do type="accept," label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <do type="accept" label="Send">>
    <go href="description.asp" method="get">
      <postfield name="title" value="$(title)"/>
    </go>

```

```

    </do>
    <p align="center">
      <b>Near East</b>
    <br/>
    <br/>
  </p>
<p></p>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select title from udergradcourses"
set rs = conn.Execute(sql)
o/o>
</p>
<p>Select any course from option list to view its description:<br/>
<select name="title">
</o Do whilenotrs.EOF
Response.Write "<option value="&rs("title")&">&rs("title")&"</option>" & vbcrlf
rs.MoveNext
loop
o/o>
</select'>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

aimsc~sp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write(1'<?xmlversion="1.0"?'><!DOCTYPE wml PUBLIC im_
//WAPFORUM/IDTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
  <card id="aimscope" title=" Aim and Scope">>
    <do type="accept" label="back">
      <prev/>
    </do>
    <do type="options" label="Main Menu">
      <go href.="index.asp"/>
    </do>
  <p align="center">>
    <b>Near East</b>
  <br/>

```

```

    <br/>
    <lp>
    <p><lo
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.CoonectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
coon.open
sql="Select subject,description from graduatecourses where subject='aim and scope"
set rs= conn.Execute(sql)

o/c,>
</p>
<p><b.></oResponse.Write rs("subject")%></b><br><br>
<% Do while not rs.EOF%>
<% Response.Write rs("description")o/o><br><br>
<% rs.MoveNext
loop
o/c,>
</p>
<%
rs.Close :
Set rs = Nothing
conn.Close
Set conn= Nothing
%>
</card>
</wml>

```

periodstudy.asp

```

<% Response.ContentType="text/vnd.wap.wml"%>
<% Response.write("<?xml version=?" I.O""?><!DOCTYPE wml PUBLIC ""~
//WAPFORUM//DTDWML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">)o/o>
<wml>
<card id="periodstudy" title="Period of Study">
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">>
        <go href="index.asp"/>
    </do>
    <p align="center">>
    <b>Near East</b>
    <br/>
    <hr/>
    </p>
<p~/o
dim sql
set conn= server.createobject("adodb.connection")

```



```

set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from graduatecourses where subject='PERIOD OF STUDY'"
set rs = conn.Execute(sql)
o/&>
<./p>
<p><b></oResponse.Writers("subject")%><.ib><br/><br/>
<%Do while not rs.EOF/>
<%Response.Write rs("description")o/c.><br/><br/>
<%rs.MoveNext
loop
%>
<Ip>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/&>
<./card>
</wmJ>

```

appointthesissuperv .asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
<%Response.write("<?xml version=""I.O""?><!DOCTYPEwml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="appointthesissuperv" title="Supervisor Appointment">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject(*'adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.CoonectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from graduatecourses where subject='APPOINTMENT OF
THESIS SUPERVISOR""

```

```

set rs= conn.Execute(sql)
%>
</p>
<p><b></oResponse.Writers(,subject")%></b><br><br/>
<% Do while not rs.EOF%>
<% Response.Write rs("description,")%><br><br/>
</ors.MoveNext,1,1
loop
o/o>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

sub:indef:thesis.asp

<% Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion=""1.0""><!DOCTYPE wml PUBLIC ""~
//WAPFORUM//DTDWML 1.1//EN"" ""http://www.wapforwn.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="submdefflthesis" title="Submission Defence">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">>
<go href="index.asp"/>
</do>
<p align="center">>
<b>Near East</b>
<br/>
<br/>
</p>
<p></o
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from graduatecourses where subject='SUBMISSION AND
DEFENCE OF THE THESIS'"
set rs= conn.Execute(sql)
o/o>
</p>
<p><b></oResponse.Writers("subject")o/o></b><br><br/>
</oDo while not rs.EOFo/o>

```

```

<%Response.Write rs("description")%><br/><br/>
<%rs.MoveNext
loop
o/o>
</p>
</o>
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

masterdiploma.asp

```

<%Response.ContentType="text/vnd wap.wml"o/o>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC ""-
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapfonun.org/DTD/wmJ_1.1.xml"">")o/o>
<wml>
<card id="masterdiploma" title="Master Diploma">
<do type="accept" label="back">
<prev/>
</do>
<do type="optioos" label="Main Menu">
<go href="index.asp"/>
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql='Select subject,description from graduatecourses where subject='THE MASTER
DIPLOMA''
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("subject")%></b><br/><br/>
<%Do while not rs.EOF%>
<%Response.Write rs("description")%><br/><br/>
<%rs.MoveNext
loop
o/o>
</p>

```

```

</o>
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

tuitionfee.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version='?' 1.0''?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>>

<wml>
<card id="tuitionfee" title="Tuition Fee">
  <do type="accept" label="back">
    <prevf>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" f>
  </do>
  <p align="center">>
    <b>Near East</b>
  <br/>
  <brf>
  <Ip>
<p></o>
dim sql
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from graduatecourses where subject='TUITION FEE'"
set rs = conn.Execute(sql)
o/o>
<Ip>
<p><b></oResponse.Write rs("subject")o/o></b><brf><br/>
</o>Do while not rs.EOF%>
</oResponse.Write rs("description")o/o><br/><brf>
</o>rs.MoveNext
loop
%>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing

```

```

o/o>
</card>
</wml>

livingcostasp

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xml version="" 1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"/o>
<wml>
<card id="livingcost" title="Living Cost">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" />
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
  <p><%
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject.description from graduatecourses where subject=LIVING COST AND
ACCOMADATION'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b></oResponse.Write rs("subject")</o></b><br/><br/>
</oDo while not rs.EOF</o>
</oResponse.Write rs("description")</o><br/><br/>
</ors.MoveNext
loop
o/o>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

gradcounes.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/v>
</oResponse.write("<?xml version=?"!.O""!><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/v
<wml>
<card id="gradcourses" title="Graduate Courses">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">>
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
  <p></o
  dim sql
  set conn= server.createObject("adodb.connection")
  set rs= server.createObject("adodb.recordset")
  conn.Provider= "Microsoft.Jet.OLEDB.4.0"
  conn.ConnectionString = "Data SOW/Ce=" & Server.MapPath ("db/neufaculty.mdb")
  conn.open
  sql="Select c_id,title from graduatecourses"
  set rs= conn.Execute(sql)
  %>
  </p>
  <p></oDo while not rs.EOF%>
  <b><%R.response.Write rs("c_id")o/o></b><br/>
  ~/oResponse.Write rs("title")o/o><br/>
  </ors.MoveNext
loop
%>
</p>
</lo
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>
```

gradcoursedescription.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/v>
</oResponse.write("<?xml version=""1.O""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/v
<wml>
```

```

<card id="gradcoursedescription" title="Course Description">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <do type="accept" label="Send">
    <go href="masterdescription.asp" method="get">>
      <postfield name="title" value="$(title)"/>
    </go>
  </do>
  <p align="center">>
    <b>Near East</b>
  <hr/>
  <br/>
</p>
<p~/o>
dim sql
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider=="Microso:ft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select title from graduatecourses!"
set rs= conn.Execute(sql)
o/o>
<lp>
<p>Select any course from option list to view its description:<br/>
<select name="title">
<lo Do while not rs.EOF
Response.Write "<option value=" &rs("title")&">"&rs("title")&"</option>" & vbcrIf
rs.MoveNext
loop
o/o>
</select>
</p>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

daimscope.asp

```

</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion=""1.0""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1/EN1 ""http://www.wapforum.org/DTD/wml_1.1.xml"">">"/o>

```

```

<wml>
<card id="daimscope" title="Aim and Scope">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
</o>
dim sql

set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from doctorateprogram where subject='ain and scope"
set rs = conn.Execute{sql}
o/o>
</p>
<p><b></oResponseWrite rs("subject")o/o><lb><br/><br/>
</oDo while not rs.EOF'</o>
</oResponse.Writers("description")%><br/><br/>
</o/ors.MoveNext
loop
o/o>
</p>
</o
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

dperiodstudy.asp

```

</oResponse.ContentType="text/vndwap.wml"o/o>
</oResponse.write("<?xmlversion=""1.0""?><!DOCTYPE wml PUBLIC""-
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="dperiodstudy" title="Period of Study">
  <do type="accept" label="back">
    <prev/>
  </do>

```



```

    <do type="options" label="Main Menu">
        <go href="index.asp"/>
    </do>
<p align="center">>
    <b>Near East<1:>>
    <br/>
    <br/>
    </p>
<p><!--!o
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb"1
conn.open
sql="Select subject.description from doctorateprogram where subject='PERIOD OF STUDY'"
set rs = conn.Execute(sql)
o/o>
</p>
<p><b><%Response.Write rs("subject")></b><br/><br/>
<%Do while not rs.EOF>o/o>
<%Response.Write rs("description")o/o.><br/><br/>
<%rs.MoveNext
loop
%>
</p>
<%
rs.Close
Set rs =Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

dappointthesissuperv.asp

```

<%Response.ContentType="text/vnd.wapwml"o/o>
</oResponse.write("<?xml version=""! .O""?><!DOCTYPE wml PUBLIC ""-
//WAPFORUM//DTD WML 1.1//EN"" ""httpJ/www.wapforum.org/DID/wml_1.Lxml"">"}o/o>
<wml>
<card id="dappointbesissuperv" title="Supervisor Appointment">>
    <do type="accept" label="back">
        <prev/>
    </do>
    <do type="options" label="Main Menu">>
        <go href="index.asp"/>
    </do>
<p align="center">>
    <b>Near East<1:>>
    <br/>

```

```

<br/>
</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from doctorateprogram where subject='APPOINTMENT OF
DISSERTATION SUPERVISOR'"
set rs = conn.Execute(sql)
%>
<Ip>
<p><b><%Response.Write rs("subject")%><lb><br/><br/>
<%Do while not rs.EOF%>
<%Response.Write rs("description")%><br/><br/>
<%rs.MoveNext
loop
o/o>
<Ip>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn =Nothing
%>
</card>
</wml>

```

dqualifyer:am.asp

```

<%Response.ContentType="text/vnd. wap.wml"o/o>
<%Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC''''
//WAPFORUM//DTD WML 1.1/EN'''' 'http://www.wapfonun.org/DTD/wml_1.1.xml''''>")o/o>
<wml>
<card id="dqualifyexam" title="Qualifying Exam">
<do type="accept" label="back">
<prev/>
</do>
<do type="options" label="Main Menu">
<go href="index.asp" />
</do>
<p align="center">
<b>Near East</b>
<br/>
<br/>
</p>
<p></o>
dim sql
set conn= server.createobject("adodb.connection")

```

```

set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath("db/neufaculty.mdb")
conn.open
sql="Select subject,description from doctorateprogram where subject='QUALIFYING
EXAMINATION1"
set rs= conn.Execute(sql)
o/o>
<lp>
<p><b></oResponse.Writers("subject")o/o></b><br><br>
</oDo while not rs.EOF/o>
</oResponse.Writers("description")o/o><br><br>
</ors.MoveNext
loop
o/o>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```

dissersupervision.asp

```

<%Response.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/o>
<wml>
<card id="dissersupervision" title="Supervision Committees">>
  <do type="accept" label="back">>
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
  <br>
  <br>
  <lp>
  <p></o
dimsql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath("db/neufaculty.mdb")
conn.open

```

```
sql="Select subject.description from doctorateprogram where subject='DISSERTATION  
SUPERVISION COMMITTEES'"
```

```
set rs = conn.Execute(sql)
```

```
o/o>
```

```
</p>
```

```
<p><b></oResponse.Writers("subject")%></b><br><br/>
```

```
<%Do while not rs.EOF%>
```

```
</oResponse.Writers("description")&/o><br/><br/>
```

```
</rs.MoveNext
```

```
loop
```

```
o/o>
```

```
</p>
```

```
<%
```

```
rs.Close
```

```
Set rs = Nothing
```

```
conn.Close
```

```
Set conn = Nothing
```

```
o/o>
```

```
</card>
```

```
</wml>
```

defencedissertation.asp

```
</oResponse.ContentType="text/vndwap.wml"o/o>
```

```
<%Response.write("<?xml version:::""1.0""?><!DOCTYPEwml PUBLIC""
```

```
//WAPFORUM//DTD WML 1.1//EN"" http://www.wapforum.org/DTD/wml_1.1.xml"">"}%>
```

```
<wml>
```

```
<card id="defenced.issertation" title="Defence Dissertation">
```

```
<do type="accept" label="back">
```

```
<prev/>
```

```
</do>
```

```
<do type="options" label="MainMenu">
```

```
<go href="index.asp"/>
```

```
</do>
```

```
<p align="center">
```

```
<b>Near East</b>
```

```
<br/>
```

```
<br/>
```

```
</p>
```

```
<p></o
```

```
dim sq)
```

```
set conn= server.createobject("adodb.connection")
```

```
set rs= server.createobject("adodb.recordset")
```

```
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
```

```
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
```

```
conn.open
```

```
sql="Select subject.description from doctorateprogram where subjcx:t='DEFENCEOF THE  
DISSERTATION PROPOSAL'"
```

```
set rs= conn.Execute(sql)
```

```
o/o>
```

```
</p>
```

```

<p><b><O/oResponse.Writers("subject")o/o></b><br><br/>
</oDo while not rs.EOF/1>>
</oResponse.Writers("description")o/o><br/><br/>
</ors.MoveNext
loop
o/1>>
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</Jwml>

```

submdefence.asp

```

</oResponse.ContentType="text/vnd.wapwml"o/1>>
</oResponse.write("<?xmlversion=""1.0""?><!DOCTYPEwml PUBLIC ""
//WAPFORUM//DTD WML 1.1//EN"" ""httpJ/www.wapforum.org/DTD/wml_1.1.xml"">")o/1>>
<wml>
<card id="submdefence" title="Submission and Defence">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
</p></o
dim sql
set conn= server.createObject("adodb.connection")
set rs= server.createObject("adodb.recordset")
conn.Provider= "MicrosoftJet.OLEDB.4.0"
conn.ConnectionStting = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select subject,description from doctorateprogram where subject='SUBMISSION AND
DEFENCE OF THE DISSERTATIONm
set rs = conn.Execute(sql)
o/1>>
</p>
<p><b><O/oResponse.Writers("subject")o/o></b><br><br/>
<%Do while not rs.EOF/1>>
</oResponse.Writers("description")o/1>><br/><br/>
</ors.MoveNext
loop

```

```

%>
<Ip>
</lo
rs.Close
Set rs = Nothing
coon.Close
Set conn = Nothing
o/o>
</card>
</wml>

dostoratedegr .asp

<% Response.ContentType--!*text/vnd.wap.wml" o/o>
<% Response.write("<?xml version=""1.0""?><!DOCTYPE wml PUBLIC ""
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">"}" o/o>
<wml>
<card id="dostoratedegr" title="Doctorate Degree">
  <do type="accept" label="back">
    <prevt>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br>
    <br/>
  </p>
</p></o
dmsql

set conn= server.createObject("adodb.connection")
set rs = server.createObject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open

sql="Select subject.description from doctorateprogram where subject=DOCTORATE DEGREE"
set rs = conn.Execute(sql)

o/o>
</p>

<p><b></oResponse.Writers("subject")%></b><br/><br/>
<%Do while not rs.EOF/o>
</oResponse.Write rs("description")%><br/><br/>
</ors.MoveNext
loop
o/o>
</p>

```

```

</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

doctorateadmission.asp

```

</o.Response.ContentType=text/vnd.wap.wml%>
</o.Response.write("<?xml version='1.0'><!DOCTYPE wml PUBLIC
//WAPFORUM//DTD WML 1.11/EN- 'http://www.wapforum.org/DTD/wml_1.1.xml'">")/o>
<wml>
<card id="docrorateadmission" title="Doctorate Admission">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp" />
  </do>
  <p align="center">
    <b>Near East</b>
    <hr/>
    <hr/>
  </p>
  <p></p>
  </o>
  <dimsql>
  set conn= server.createobject("adodb.connection")
  set rs= server.createobject("adodb.recordset")
  conn.Provider="Microsoft.Jet.OLEDB.4.0"
  conn.ConectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
  conn.open
  sql="Select subject,description from doctorateprogram where subject='ADMISSION'"
  set rs= conn.Execute(sql)
  </o>
  <lp>
  <p><b><% Response.Write rs(subject)%></b><br><br>
  </o><do while not rs.EOF%>
  </o><Response. Write rs("description")/o><br><br>
  </ors.MoveNext
  loop
  </o>
  </p>
  </o>
  rs.Close
  Set rs = Nothing
  conn.Close
  Set conn = Nothing

```

```
o/o>
</card>
</wml>
```

dtuitionfees.asp

```
</oResponse.ContentType="text/vnd.wap.wml"o/o>
</oResponse.write("<?xmlversion=""1.0""?><!DOCTYPE wml PUBLIC""!
//WAPFORUM//DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/cv
<wml>
<card id="dtuitionfees" title="Tuition Fees">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
</p></o
dim sql
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neuficulty.mdb")
conn.open
sql="Select subject,description from doctorateprogram where subject='TUITION FEES'"
set rs = conn.Execute(sql)
%>
</p>
<p><b></oResponse.Writers("subject")o/o></b><br/><br/>
</oDo while not rs.EOF/o>
</oResponse.Writers("description")%><br/><br/>
</ors.MoveNext
loop
%>
</p>
</o
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>
```


dcourses.asp

```
<%Response.ContentType="text/vnd.wap.wml"%>
</oResponse.write("<?xmlversion=""1.0""><!DOCTYPE wml PUBLIC""-
//WAPFORUM/IDTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/v
<wml>
<card id="dcourses" title="Doctorate Courses">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <-i~'m~\l.~"k~t'i>
  </do>
  <p align="center">
    <b>Near East</b>
    <br/>
    <br/>
  </p>
  <p><%
dim sql
set conn = server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider = "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select title from doctorateprogram"
set rs= conn.Execute(sql)
o/v
</p>
<p><b>histructed Courses for PH.D Computer Engineering are as follow:</b><br><br>
<%Do while not rs.EOF/v
</oResponse.Writers("title")o/o><br/>
</ors.MoveNext
loop
o/v
</p>
</o
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
o/v
</card>
</wml>
```

description.asp

```
<%Response.ContentType="text/vnd.wap.wml"o/v
</oResponse.write("<?xmlversion=""1.0""><!DOCTYPE wml PUBLIC""-
//WAPFORUM/DTD WML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")o/v
<wml>
```

```

<card id="description" title="Description">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">
    <b>Near East</b>
    <hr/>
    <br/>
  </p>
  <p><°/o
dim sql,title
title= Request.QueryString("title")
set conn= server.createobject("adodb.connection")
set rs = server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString= "Data Source=" & Server.MapPath ("db/neufacuJty.mdb")
conn.open
sql="Select cjd,title,description from udergradcourses where title = "&title&""
set rs = conn.Execute(sql)
%>
<Ip>
<p><b><%Response.Writers("c_id")o/o><lb><br/>
<b><%Response.Writers("title")o/o></b><br/><br/>
<%Response.Writers("description")%><br/>
</p>
<%
rs.Close
Set rs = Nothing
conn.Close
Set conn = Nothing
%>
</card>
</wml>

```

masterdescription.asp

```

<%Response.ContentType="text/vnd.wap.wml"%>
<%Response.write("<?xml version="" } .O""?<!DOCTYPE wml PUBLIC ""
//WAPFORUM//DTDWML 1.1//EN"" ""http://www.wapforum.org/DTD/wml_1.1.xml"">")%>
<wml>
<card id="masterdescription" title="Description">
  <do type="accept" label="back">
    <prev/>
  </do>
  <do type="options" label="Main Menu">
    <go href="index.asp"/>
  </do>
  <p align="center">

```

```

<b>Near East</b>
<br/>
<br/>
<Ip>
<p></o>
dim sql,title
title= Request.QueryString("title")
set conn= server.createobject("adodb.connection")
set rs= server.createobject("adodb.recordset")
conn.Provider= "Microsoft.Jet.OLEDB.4.0"
conn.ConnectionString = "Data Source=" & Server.MapPath ("db/neufaculty.mdb")
conn.open
sql="Select c_id,title,description from graduatecourses where title= m&title&""
set rs= conn.Execute(sql)
o/o>
<Ip>
<p><b><%Response.Write rs("c_id")o/o><lb><br/>
<b><%Response.Write rs("title")o/o></b><br/><br/>
<%ResJ)(llse.Writers("description"}o/o><br/>
<Ip>
<%
rs.Close
Set rs= Nothing
conn.Close
Set conn = Nothing
o/o>
</card>
</wml>

```