Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)
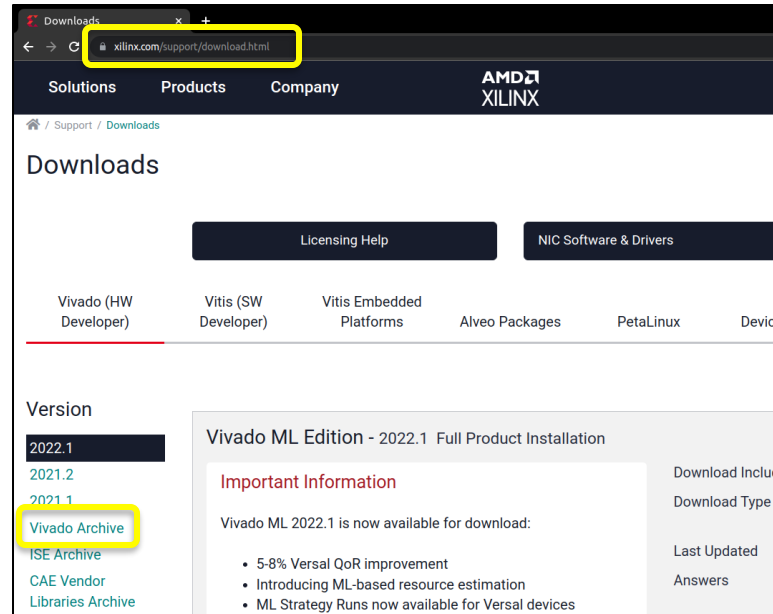
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Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- We will use Xilinx Vivado (version 2019.1) as a design tool for our HW/SW codesigns. Visit to https://www.xilinx.com/support/download.html and then click on "*Vivado Archive*".

Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- Select 2019.1. Note that we will not support other Vivado versions in this course.
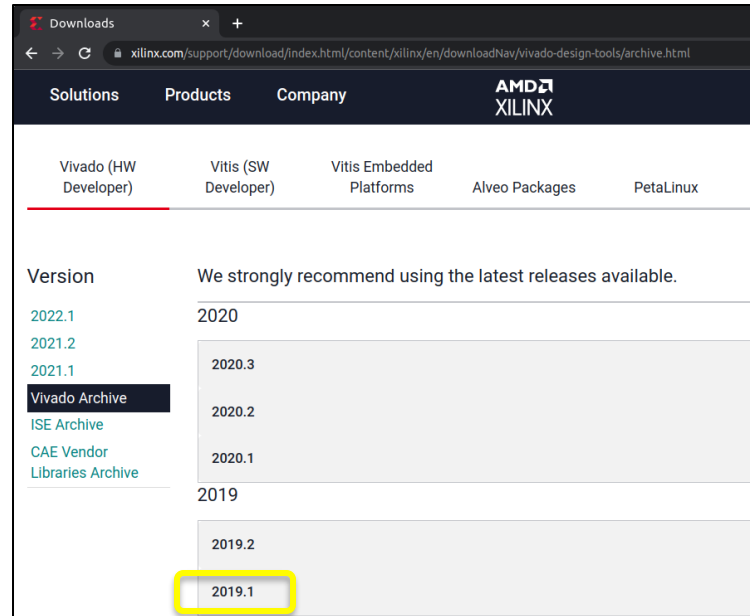
Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- Choose the "Webpack" installation file depending on your OS (Linux Self Extracting).

Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- You will be directed to AMD/Xilinx login page. You can create a free AMD/Xilinx account for downloading the installation file.
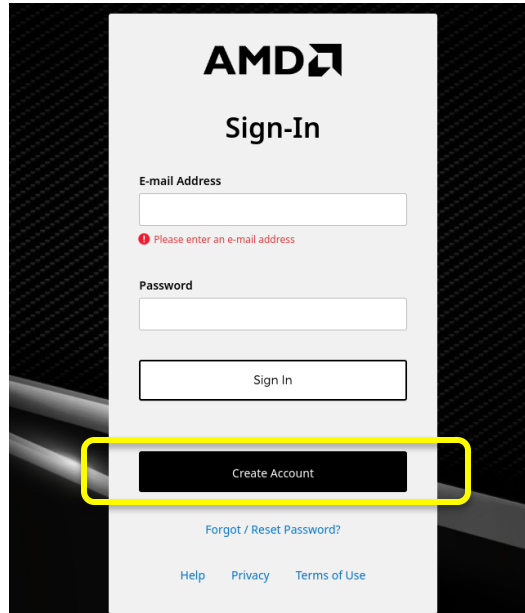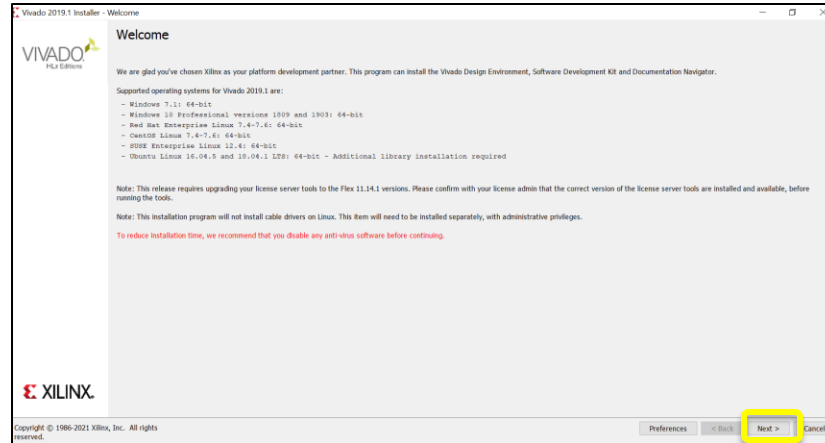
Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- Download the installation bin file, navigate to the download directory and then execute the following commands in terminal.
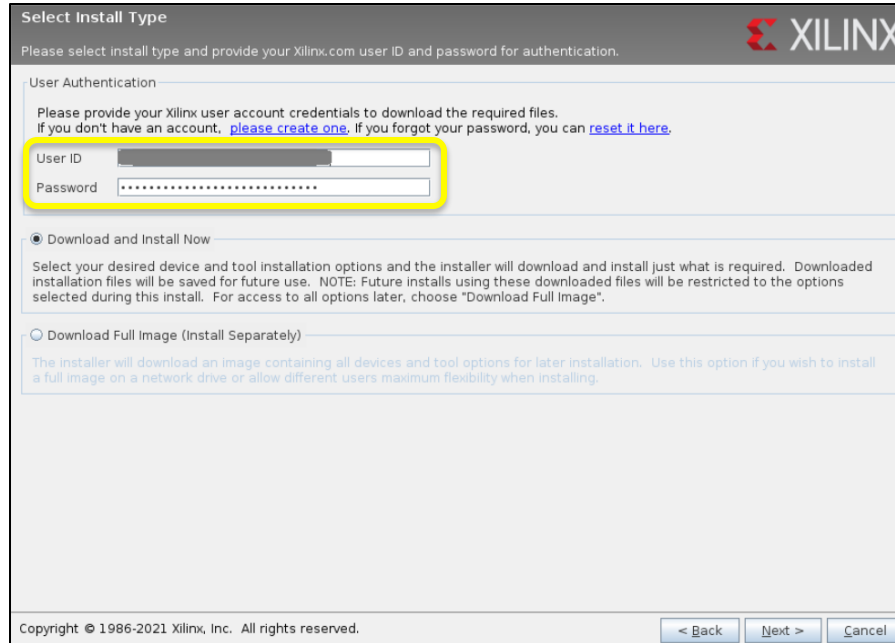
```
$: sudo chmod +x Xilinx_Vivado_SDK_Web_2019.1_0524_1430_Lin64.bin
$: ./Xilinx_Vivado_SDK_Web_2019.1_0524_1430_Lin64.bin
```

- The installer might ask you to download the latest version, ignore that. Click on "Next" with the Vivado 2019.1 installation.

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- Provide your user credentials to the installer.

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- Accept the license agreement and choose Webpack version for installation.

Vivado 2019.1 Webpack Installation Guide (Ubuntu Linux)

- Next, keep all devices selected and click on "Next".
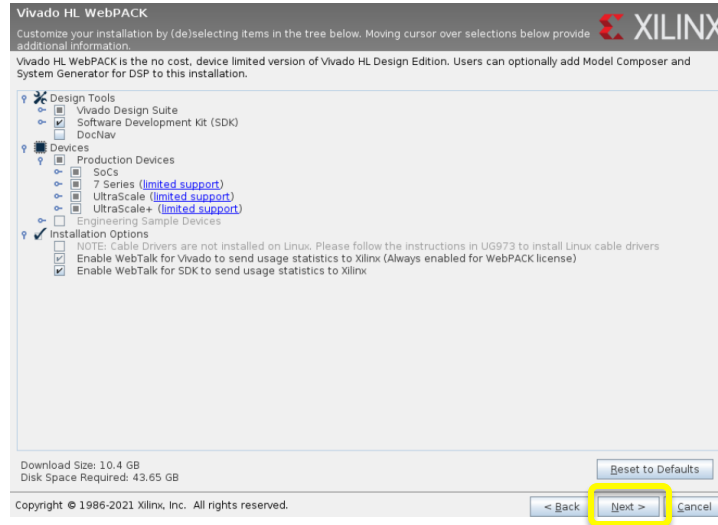
- Next, set the installation directory as /opt/Xilinx. Then click on "Next" and the tool starts the download and installation. The final installation directory has a size of around 24 GB.

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- After the installation, you also have to install cable drivers separately. First navigate to:

```
/opt/Xilinx/Vivado/2019.1/data/xicom/cable_drivers/lin64/install_script/install_drivers
```

- Then, run the command below (with super-user privileges).

```
sudo ./install_drivers
```

- Now, Vivado is ready to be launched. Use commands below to start the Vivado.

```
source /opt/Xilinx/Vivado/2019.1/settings64.sh
source /opt/Xilinx/SDK/2019.1/settings64.sh
vivado
```

PYNQ-Z2 Board Files

- We will use the PYNQ-Z2 FPGA board for implementing the cryptographic primitives. With Vivado 2019.1, you also need to copy the PYNQ-Z2 board-specific files into the installation directory.

- Go to course website (https://www.iaik.tugraz.at/ce) and download board files. Copy the PYNQ-Z2 board files into the following directory.

```
/opt/Xilinx/Vivado/2019.1/data/boards/board_files
```