Lab 1: Raspberry Pi 4b and Linux Setup

Welcome to the first meeting of the VE473 Advanced Embedded System course! Today we're going to configure a Linux kernel on the Raspberry Pi 4b.

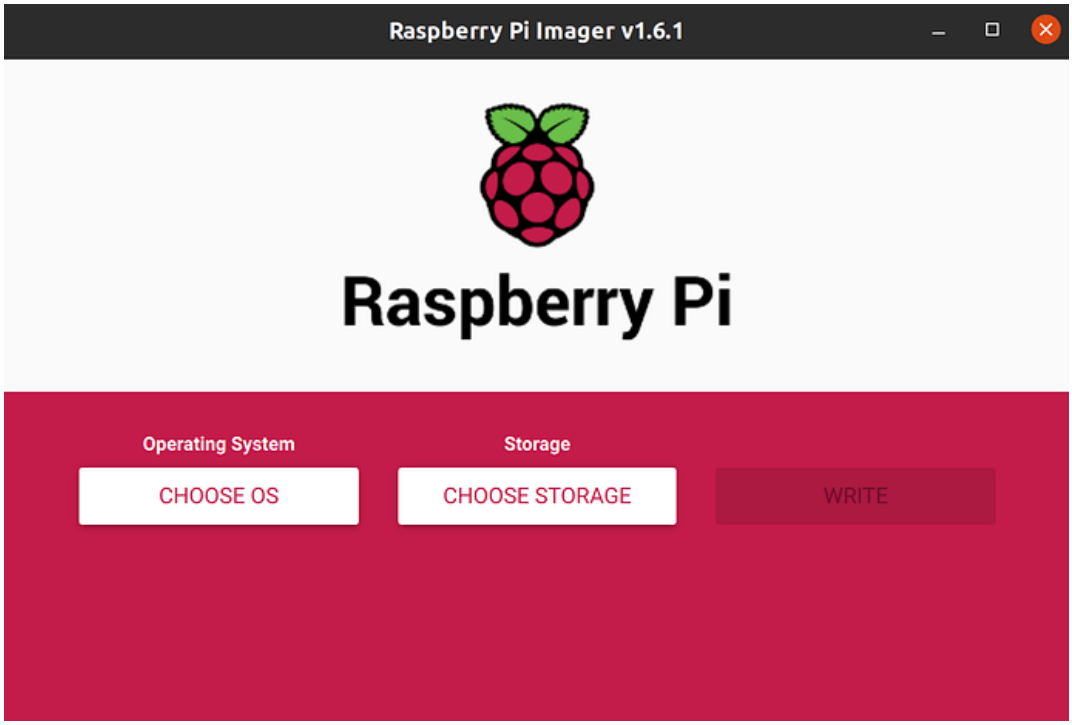
Project Description

1. **Install Linux on Raspberry Pi**

   First, insert the microSD card (with the case) into your computer.

   Second, install the linux into the microSD card.
   For Linux users:
   sudo snap install rpi-imager
   For Windows users:
   https://downloads.raspberrypi.org/imager/imager_latest.exe
   For Mac users:
   https://downloads.raspberrypi.org/imager/imager_latest.dmg

   Third, choose the operating system as “other generous purpose OS-> ubuntu ->ubuntu Desktop 21.04” and Storage as “the 64GB microSD card”. (Please be careful with the choose storage. Do not choose your computer storage)



Fourth: Now you have your Ubuntu SD card. Before going on, make sure your Pi is off and insert this SD card.

2. **Setup your Raspberry Pi**
   First, Now, ensure your HDMI screen and a USB keyboard are plugged in before plugging in and powering on the Raspberry Pi. You will be able to see the boot process on screen.

3. **(Optional) Setup the remote access to your Raspberry Pi.**

Submission:

1. As the answer to the first exercise, list the names of the people who worked together on this studio.
2. Take a screenshot of the installed system on your Raspberry Pi.

Advanced Topic (not included in the lab grade):

1. Compile a custom version of the Linux (Linux kernel) source code for the Raspberry Pi.
2. Build and install the compiled kernel image onto your Raspberry Pi.