

Lab 0 - Setting Up your Machine

Operating Systems, CS-UH 3010

Assigned: Aug 29, 2022 Due: Sept 1, 2022



Do not share the start codes or virtual image provided in this lab, as they were kindly provided by Princeton without permission to redistribute.

Instructions

1. Download VirtualBox: <https://www.virtualbox.org/wiki/Downloads>. VirtualBox works for both Windows and Mac OS.
2. Download the provided virtual machine image (can be found on the online course book page under source files), and unzip it: Lab0/labpc-virtual.zip
3. Add a machine to VirtualBox using 'labpc-virtual.vbox'. You may want to check your configurations before running, such as setting the memory and video-memory quota memory.
4. Log in to the system by username: 'student', password: 'cos318'.
5. To Install VirtualBox's Guest Additions use 'root' as the password for 'root' user. These allow more control over your virtual machine and allow you to share a folder between the virtual machine and your host. If you have issues accessing the shared add the 'vboxsf' group with `sudo usermod --append --groups vboxsf $USER` and restart to take effect.
6. Open a terminal and go to the folder

```
318/codes/project1
```
7. Unpack the start-code:

```
tar -xvzf start_code_1.tar.gz
```
8. Go inside the extracted folder:

```
cd start_code_1
```
9. Make it make
10. Test the Emulator:

bochs

11. Play with some of the code in the bootblock_example.s (copy into bootblock.s & make & test)
12. Try out the debugger:

~/318/bin/bochsdbg.

The start code is the start code for the first assignment but please ignore it as the actual assignment version is slightly modified.