

Operating Systems Laboratory (CS – 651)

Assignment 1

1. Get latest version of Ubuntu installed on your Laptop.
2. Get “git” install at your copy of Linux
3. Get “qemu” (qemu-system-x86) installed at your copy of Linux
4. Clone System xv6 source at your linux (git clone [git://github.com/mit-pdos/xv6-public.git](https://github.com/mit-pdos/xv6-public.git))
5. To build xv6, a compiler toolchain is needed: compiler, linker, and such. Check whether your Linux already has the toolchain (<https://pdos.csail.mit.edu/6.828/2014/tools.html>). In case it does not, get the basics installed, `apt-get install build-essential gdb`.
6. Build system xv6 for qemu and run.
7. Install other virtualization platforms like virtualbox, VMware player (both free for Linux); build System xv6 for them and run.
8. Download the reference manual for System xv6 and study. (<https://pdos.csail.mit.edu/6.828/2017/xv6/xv6-rev10.pdf>).

After the completion of the Assignment you should be able to

1. install linux on a given platform
2. install desired packages on linux
3. compile system xv6 for a given target machine

Ideas for comprehension

1. Hardware, Firmware and BIOS, Software
2. Build-Chain Tools (Cross Compiler)
3. Booting