Configure xv6-riscv in Lab PCs (both faculty and student PCs) during the class

- Check whether QEMU is installed in the PC or not by running the following command in the terminal:

qemu-system-x86_64 --version

If the command shows the version information, then it is installed. If not, then QEMU needs to be installed. To install QEMU, run the following commands in the terminal:

sudo apt update

sudo apt install qemu-kvm qemu-system-x86

- After you have installed QEMU, go to:

  https://gist.github.com/eecsmap/00b881bbf1c652dbbb5651b4682ea0b4

  From this website, run the following command to build an existing RISC-V toolchain.

sudo apt-get install git build-essential gdb-multiarch qemu-system-misc gcc-riscv64-linux-gnu binutils-riscv64-linux-gnu

After the execution of the command is done, please check whether it was configured correctly or not by running the following command:

riscv64-linux-gnu-gcc --version

If the version information is displayed, then the configuration is successful.

- Now, create a new directory where you want to install xv6-riscv. And change your current directory to the newly created directory. Then, run the following command in the terminal to install xv6-riscv:

git clone https://github.com/mit-pdos/xv6-riscv.git

- If the execution of the command is completed, then execute the following commands to run xv6_riscv:

cd xv6-riscv

make qemu