## 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***