# Anthony Lock – Assignment 1

## Introduction

## Commands ran in order of operation to install an ubuntu image through QEMU

* *cd /var/lib/xen/images/ubuntu-network/*
* *sudo wget* [*https://releases.ubuntu.com/16.04.7/ubuntu-16.04.6-server-i386.iso*](https://releases.ubuntu.com/16.04.7/ubuntu-16.04.6-server-i386.iso)
* *sudo apt-get install qemu-utils -y*
* *sudo qemu-img create -f raw xenqemu.img 20G*

Running the next command, I discovered I needed to use Mobaxterm for the terminal connection because it gives me the ability to open up a UI window

* *sudo qemu-system-x86\_64 -m 4096 -hda xenqemu.img -cdrom /var/lib/xen/images/ubuntu-network/ubuntu-16.04.6-server-i386.iso*

Username for QEMU install = ubuntu

Password for QEMU install = qemuubuntu

* *qemu-img convert xenqemu.img -O raw newqemu.img*
* *sudo lvcreate -L 30G -n qemuxen /dev/IN720AnthonyUbuntu-vg*
* *sudo dd if=newqemu.img of=/dev/IN720AnthonyUbuntu-vg/qemuxen*
* *sudo cp xlexample.pvlinux qemu.cfg*
* *sudo vim /etc/xen/qemu.cfg*

Changes that had to be made in the qemu configuration file:

comment out the line with ‘kernel’, change disk to '/dev/IN720UbuntuAnthony-vg/qemuxen,raw,xvda,rw', so it reads this volume group for the active disk.

## QEMU versus KVM

QEMU is a ‘quick emulator’ which runs on top of already existing software and uses a virtual computer to run, where as KVM runs on physical hardware of the machine, allowing virtual machines to access raw unaffected processing power with out any latency.