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EECS 678 Lab02



1. After downloading and installing QEMU, the command copied the base image from the cycle servers onto my machine



1. Once the image was copied, this command makes a differential image off the local copy of the cycle server base image. The new image is named “joseph.qcow”.



1. This command boots up the copied image from the previous command. In my case, using the -redir flag caused an error. However, by removing it, it caused the GUI to open with 1024M of memory.

A picture containing food, drawing

Description automatically generated

A screenshot of a cell phone

Description automatically generated

1. Once the GUI was opened and loaded, I added myself as a user in addition to the root user.

A picture containing drawing

Description automatically generated

1. This command opens vi on the /etc/sudoers file. I then added the two lines to add the new user to the file.

A picture containing object, clock

Description automatically generated

1. Once the user was added to the file, this command adds the new user to the sudo group. This gives the new user system admin rights.

A screenshot of a cell phone

Description automatically generated

1. The next step was to move the kernel source and the config file to the user’s home directory. Then I changed the ownership to the user.
2. This command installs sudo onto the kernel. This enables the new user to call commands with the rights from the previous command.
3. After installing sudo, this command switches the root user account to the new account I have created.



1. On the new user account, this command prevents an error that may happen during installation. This installs the libz package.



1. A picture containing drawing

   Description automatically generated This command opens the kvm-kernel-build script using vi so I can add the necessary changes before building the kernel.
2. Once the script was opened, I added to -j flag with the value 2 to the make-kpkg command.

A screenshot of a cell phone

Description automatically generated

1. Once the change to the script was saved, the first command changes the directory to the kernel source directory. The second command builds the kernel using the sudo rights as the new user. After this build finishes, a new .deb file should be created in the directory above the kernel source.



1. After the new .deb file was created, this command installs the kernel.

A picture containing drawing

Description automatically generated



1. The last steps were to check if the KVM had booted the newly built kernel. First, the system was rebooted from the new account using the first command. Once the system reloaded, I selected the Linux Debian 2.6.32.60 option from the boot menu. Then, I logged into the new “joseph” account. Lastly, to double check that I was running the correct kernel version, I ran the second command.