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|  | Virtual Machine Configuration |
|  |  |
|  | James Duncan  Computer Systems, Infrastructure & Management  [Date] |

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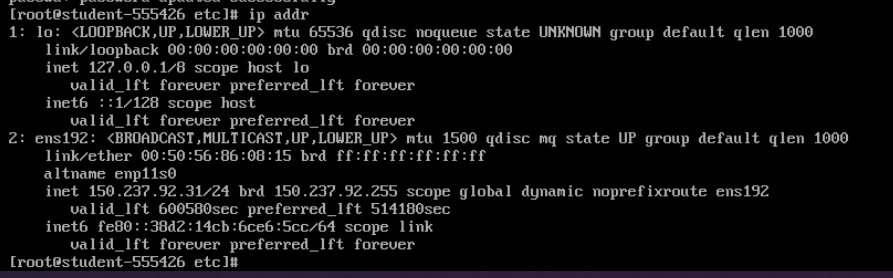
# Virtual Machine Beginning State

The Virtual Machine (VM) first starts as a fresh install of Arch Linux with none of the settings required for this project. The first thing the admin has to do is to change the hostname of the virtual machine to be consistent with the admins student ID (in this case “student-555426), this is part of establishing an internet connection for the Virtual machine which is required for network connectivity used later in remote access using SSH (Secure Shell). This can be achieved by changing directory to the “etc folder” with the “cd” command and finding the file called “hostname”. The admin can navigate and find files by using the “ls” command that shows the contents of the directory. By standard the only text editor on the machine is vim so vim must be used to edit the hostname file, once edited the admin can save and exit the file by pressing escape the providing the “:wq” command. Confirmation of writing the hostname can be found in figure 1.



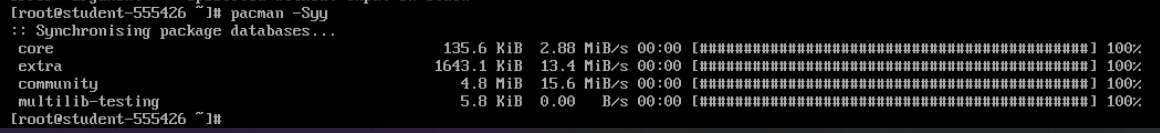
*Figure 1: Hostname written*

The VM can then be rebooted and connection to the internet can be tested by pinging an IP address (Google DNS 8.8.8.8), your own IP address can also be found by issuing the command “ip addr” which will print all the network connectivity information which can be found in figure 2. In this case the IP address for this VM is 150.237.92.31 as found in section 2 of figure 2.



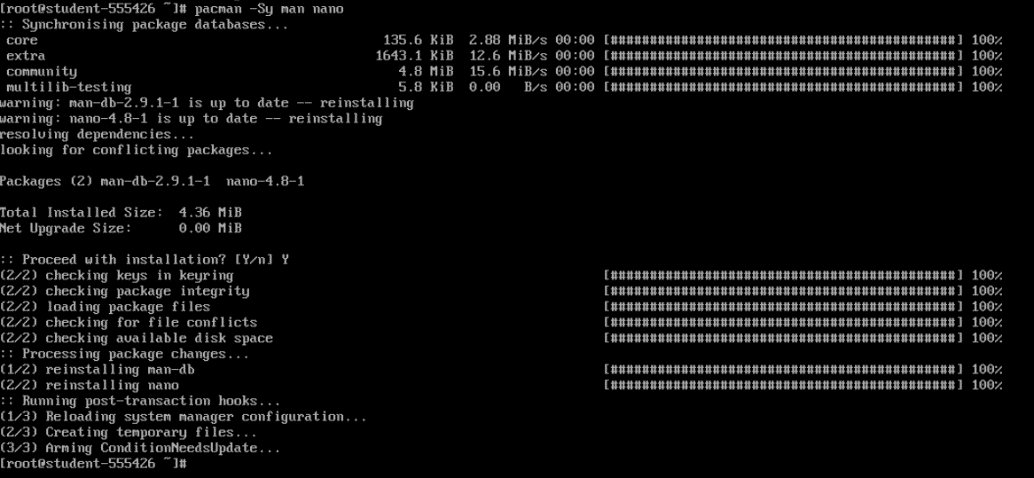
*Figure 2: Network Information*

Once a connection has been established the admin can check if all the packages from the Arch Linux Distribution are up to date with “pacman -Syy” which checks all the packages that the install has and what it depends on checking if they are up to date or not. This can be shown in figure 3.



*Figure 3: Updating Arch Linux Package*

Other installs can be done with pacman as well such as installing a new more convenient text editor so the admin does not have to use vim. Nano (text editor) can be installed by using “pacman -Sy nano” to synchronise and fetch the latest copy of the editor. This install can be found in figure 4. The manual pages can also be installed so that the user can use “man nano” to get a help sheet of all the provided commands nano offers.



*Figure 4: Nano Install*

Nano can now be tested by changing the “motd” file in the “etc” folder, this is the message that shows up when the VM is successfully logged into. You can find the nano example in figure 5.

*Figure 5: Nano motd*

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