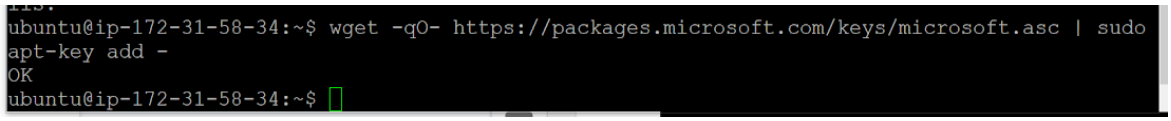
For Milestone 2 you will be installing Microsoft SQL Server into your Ubuntu 16.04 virtual machine that you build in Milestone 1. In order to begin make sure that your instance is powered on and connect to it via PuTTY.

Import GPG keys

Once you are logged into your machine the first step we will need to do is import the GPG keys for the Microsoft repository into your Linux machine. This will allow us to access the package repositories needed for this install. To do this type in and execute the following command.

wget –qO- https://packages.microsoft.com/keys/microsoft.asc | sudo apt-key add –

Paste a screenshot of your console showing the command and result below. The result should be an upper case OK



Register Repository

After you have imported your keys the next step is to register the MSSQL server respository. You can do that by typing in and executing the command below.

sudo add-apt-repository "$(wget -qO- https://packages.microsoft.com/config/ubuntu/16.04/mssql-server-2019.list)"

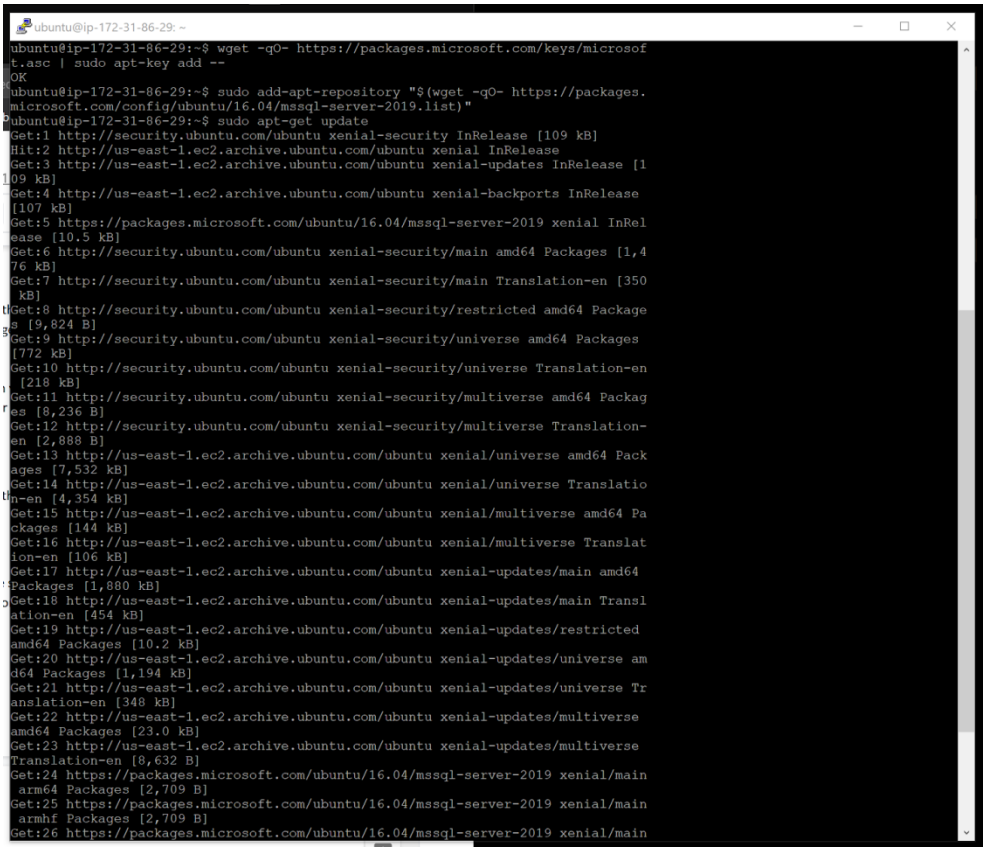
There should be no response on the console but a return to the prompt.

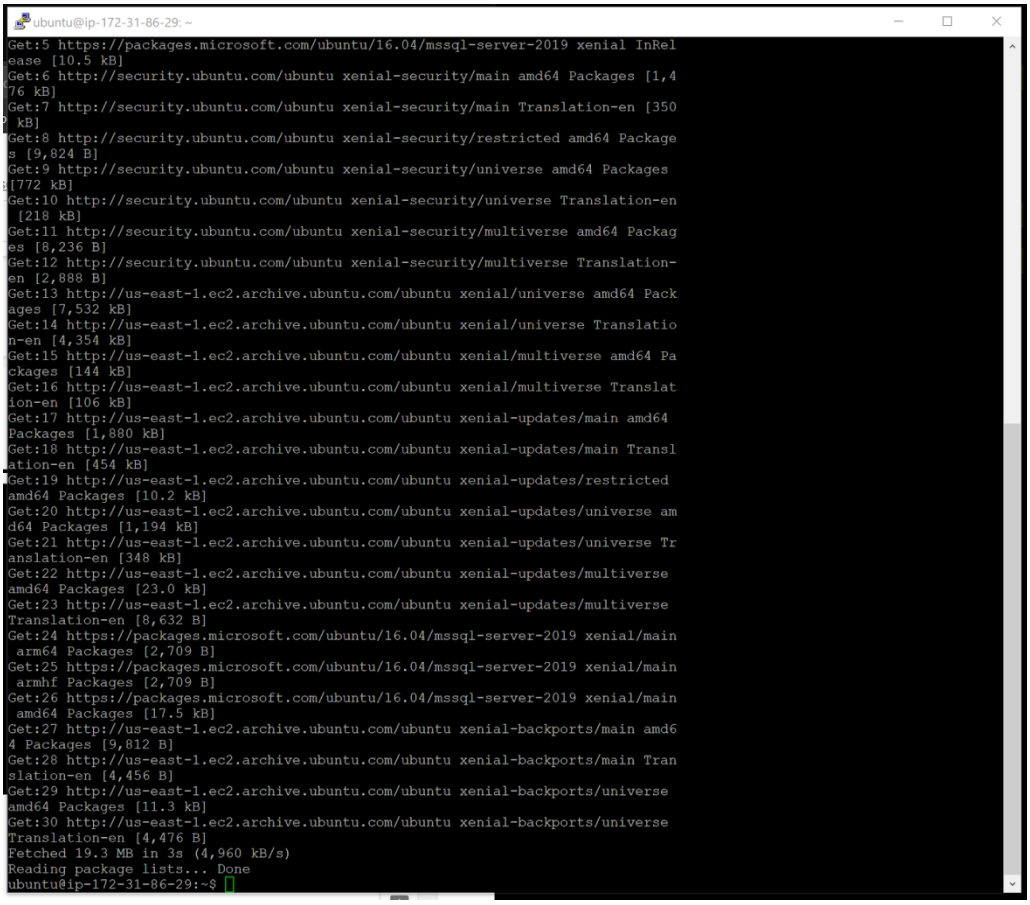
Install Microsoft SQL Server

Next you will run the commands to actually install the SQL server application. This will be a 2 part installation. First you will update the apt-get packages with the command below

Sudo apt-get update

This command will cause several lines to appear on your console representing the packages being updated. Include a screenshot below showing your command and the packages updated.


ubuntu@ip-172-31-86-29: ~
ubuntu@ip-172-31-86-29:~$ wget -qO- https://packages.microsoft.com/keys/microsoft.asc | sudo apt-key add --
OK
ubuntu@ip-172-31-86-29:~$ sudo add-apt-repository "$(wget -qO- https://packages.microsoft.com/config/ubuntu/16.04/mssql-server-2019.list)"
ubuntu@ip-172-31-86-29:~$ sudo apt-get update
Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial InRelease
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:5 https://packages.microsoft.com/ubuntu/16.04/mssql-server-2019 xenial InRelease [10.5 kB]
Get:6 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [1,476 kB]
Get:7 http://security.ubuntu.com/ubuntu xenial-security/main Translation-en [350 kB]
Get:8 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages [9,824 B]
Get:9 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [772 kB]
Get:10 http://security.ubuntu.com/ubuntu xenial-security/universe Translation-en [218 kB]
Get:11 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [8,236 B]
Get:12 http://security.ubuntu.com/ubuntu xenial-security/multiverse Translation-en [2,888 B]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [7,532 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial/universe Translation-en [4,354 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [144 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial/multiverse Translation-en [106 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [1,880 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/main Translation-en [454 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages [10.2 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [1,194 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/universe Translation-en [348 kB]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [23.0 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu xenial-updates/multiverse Translation-en [8,632 B]
Get:24 https://packages.microsoft.com/ubuntu/16.04/mssql-server-2019 xenial/main arm64 Packages [2,709 B]
Get:25 https://packages.microsoft.com/ubuntu/16.04/mssql-server-2019 xenial/main armhf Packages [2,709 B]
Get:26 https://packages.microsoft.com/ubuntu/16.04/mssql-server-2019 xenial/main



After this has completed you will need to execute

Sudo apt-get install –y mssql-server

This command will result in a significant output to the screen and may take a few minutes to complete.

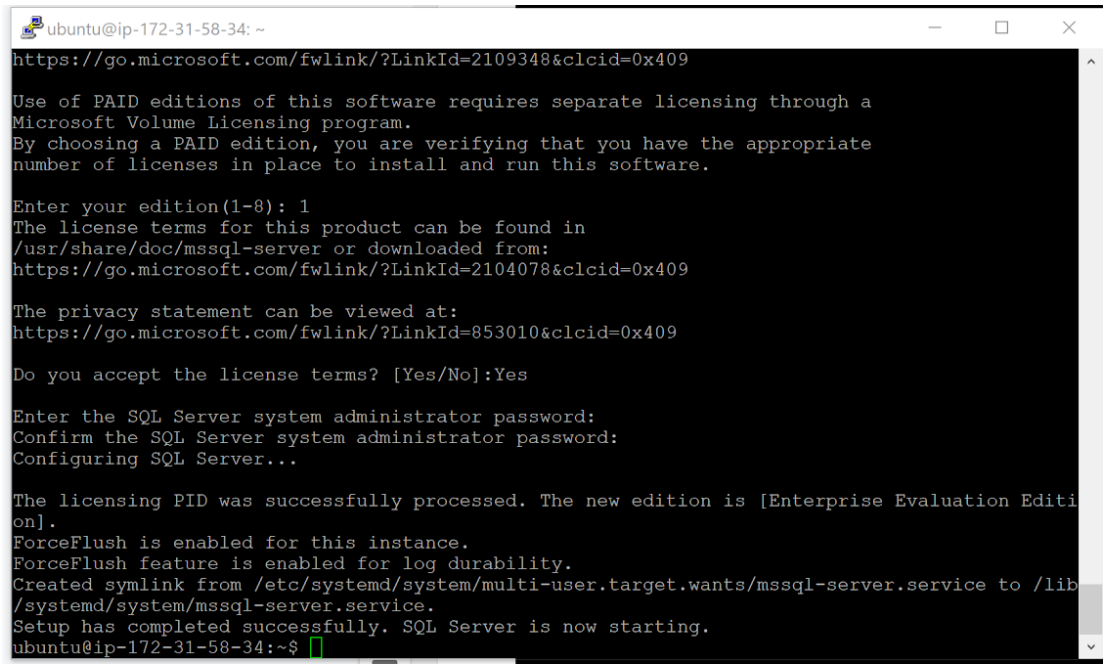
Configure MSSQL Server

Now that the actual code has been installed on the server you will need to complete the initial configuration. To start the configuration run the command

Sudo /opt/mssql/bin/mssql-conf setup

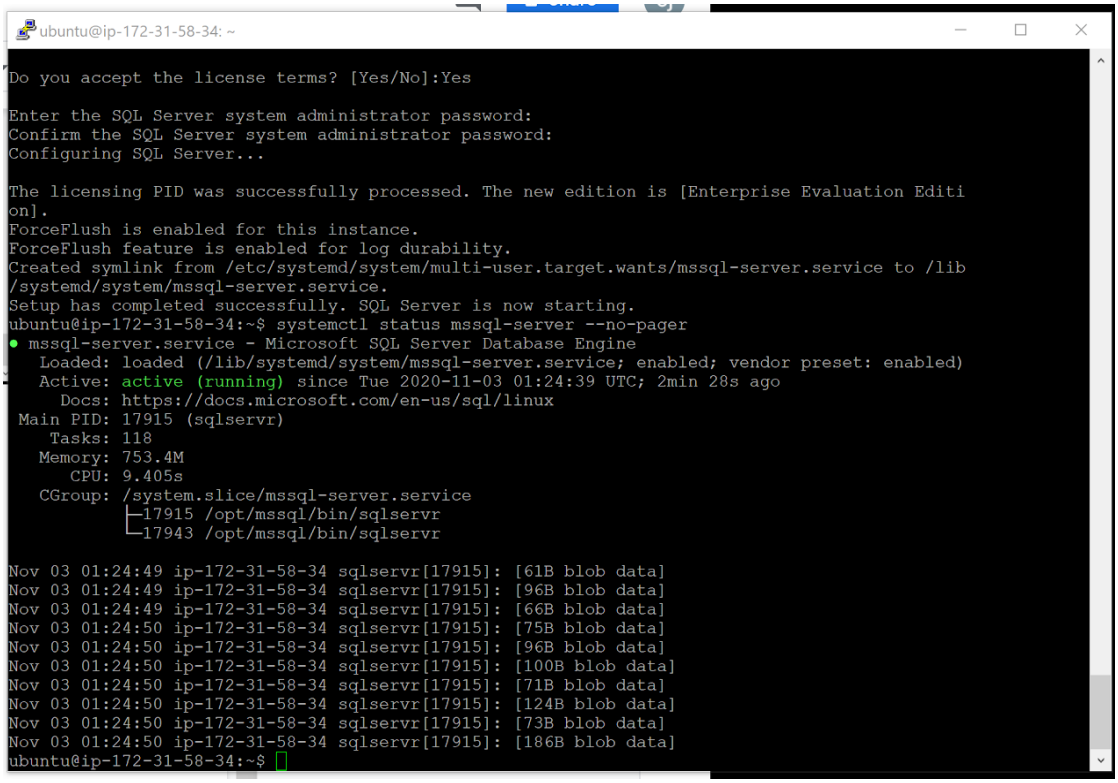
The first thing you will have to configure is what edition of MS SQL server you are licensed for. For this class you should choose Evaluation (option 1). When prompted say Yes to accept the license terms.

After accepting the license agreement you will be prompted for an SA password. This is the master system administration password for the database server. Please keep track of what you set it to for future use. Once you have set the password a series of configuration messages should appear. Include a screenshot below of the messages once the configuration is complete.



Validate MS SQL is running

In order to ensure that the Microsoft SQL Server service is running as expected execute

Systemctl status mssql-server - -no-pager

Include a screenshot of the service information below.