HOW TO SET UP A EC2 INSTANCE ON AMAZON AWS

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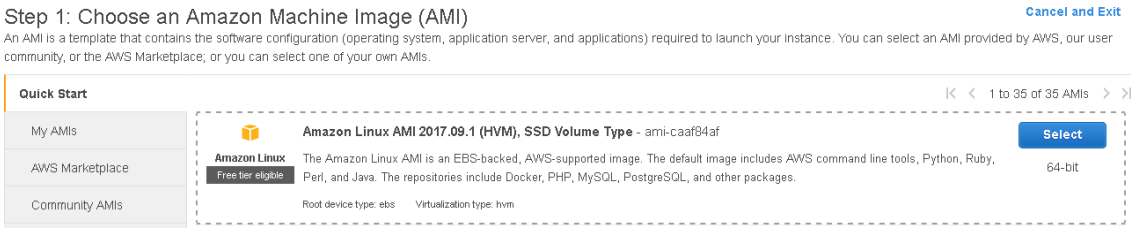
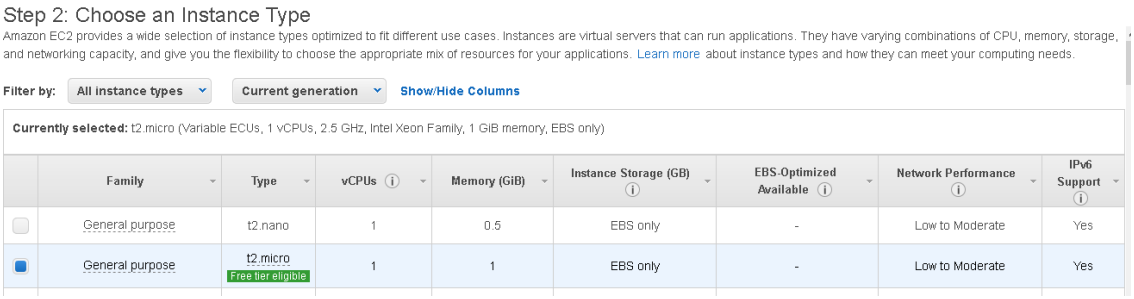
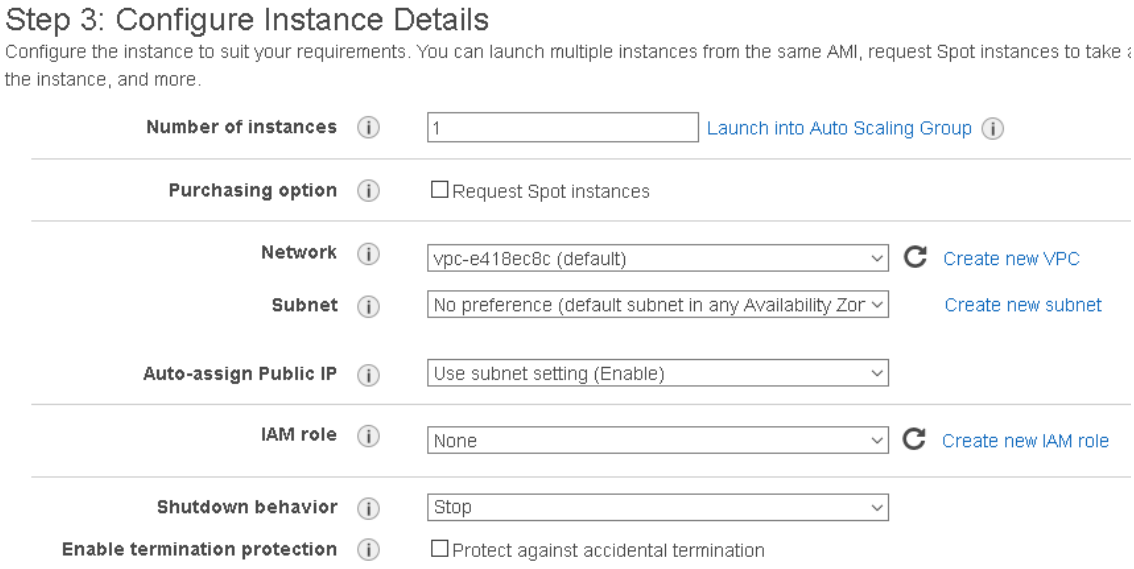
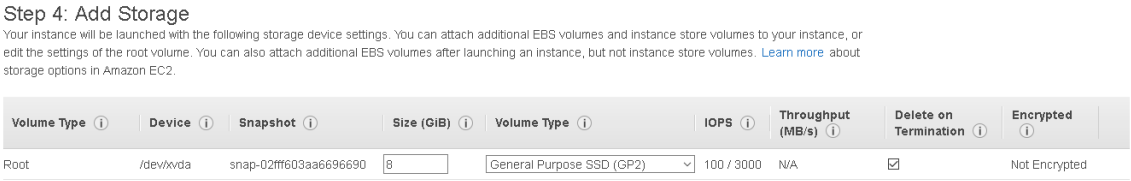
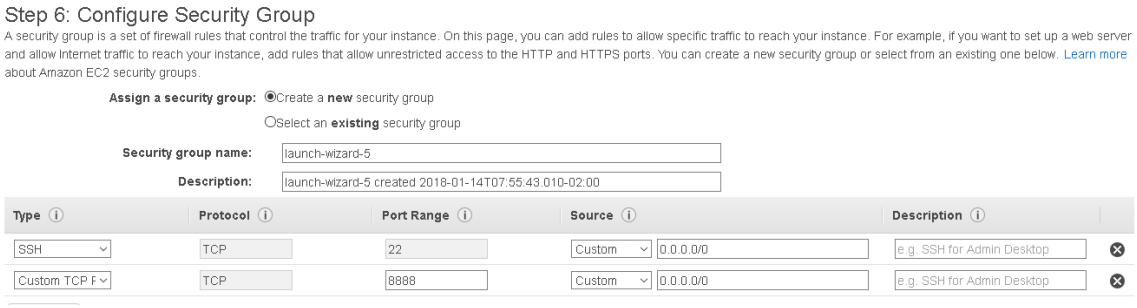
Go to your AWS Management Console, choose Services / EC2 / Instances / Launch Instance.

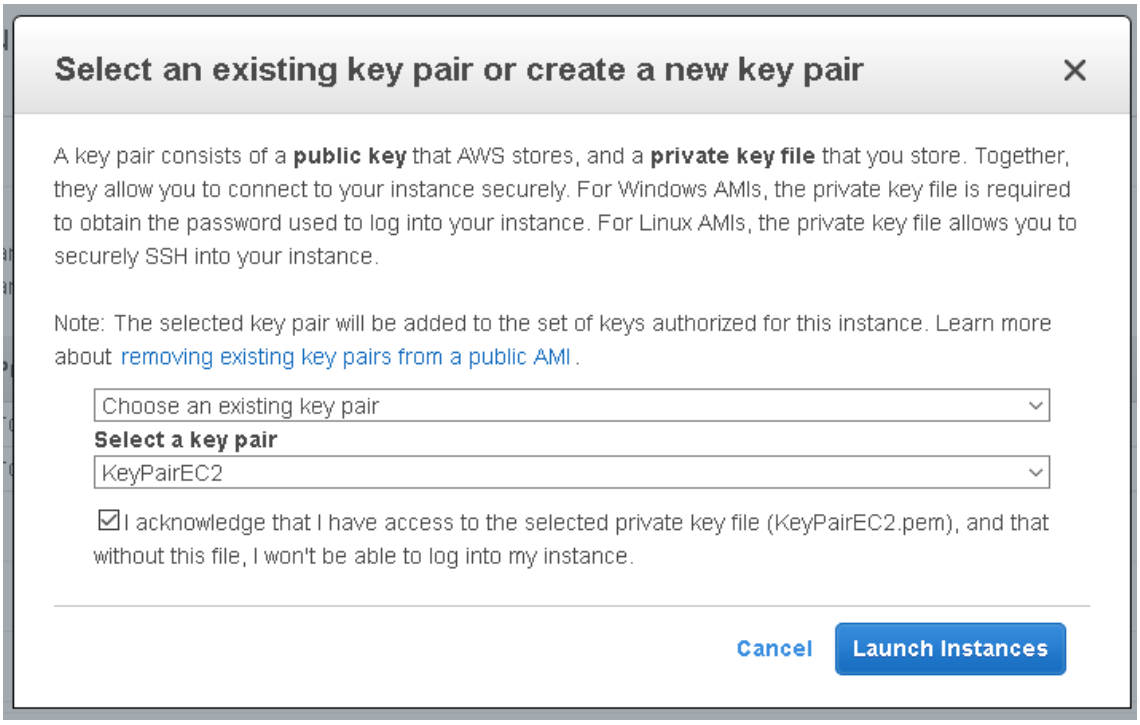




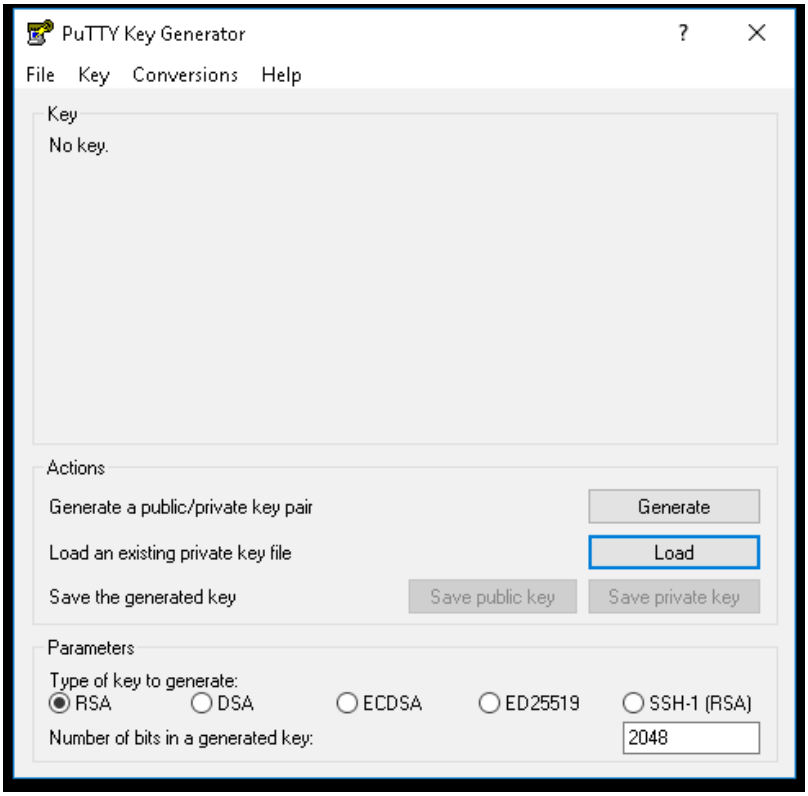




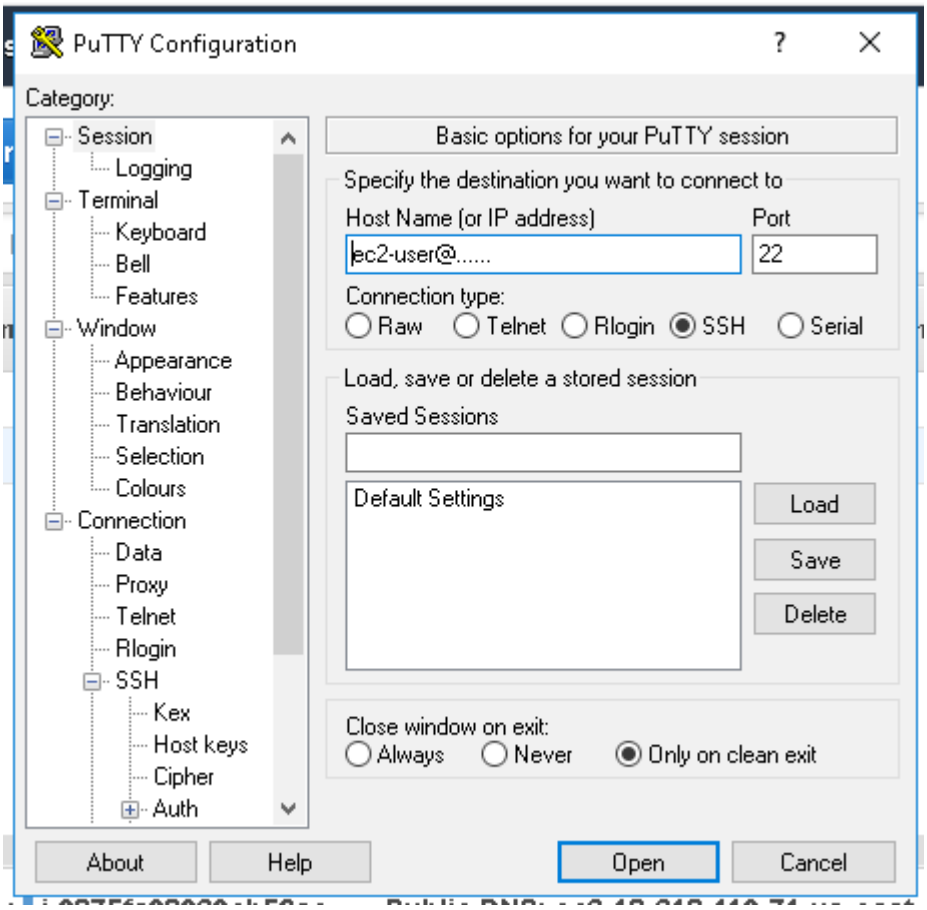


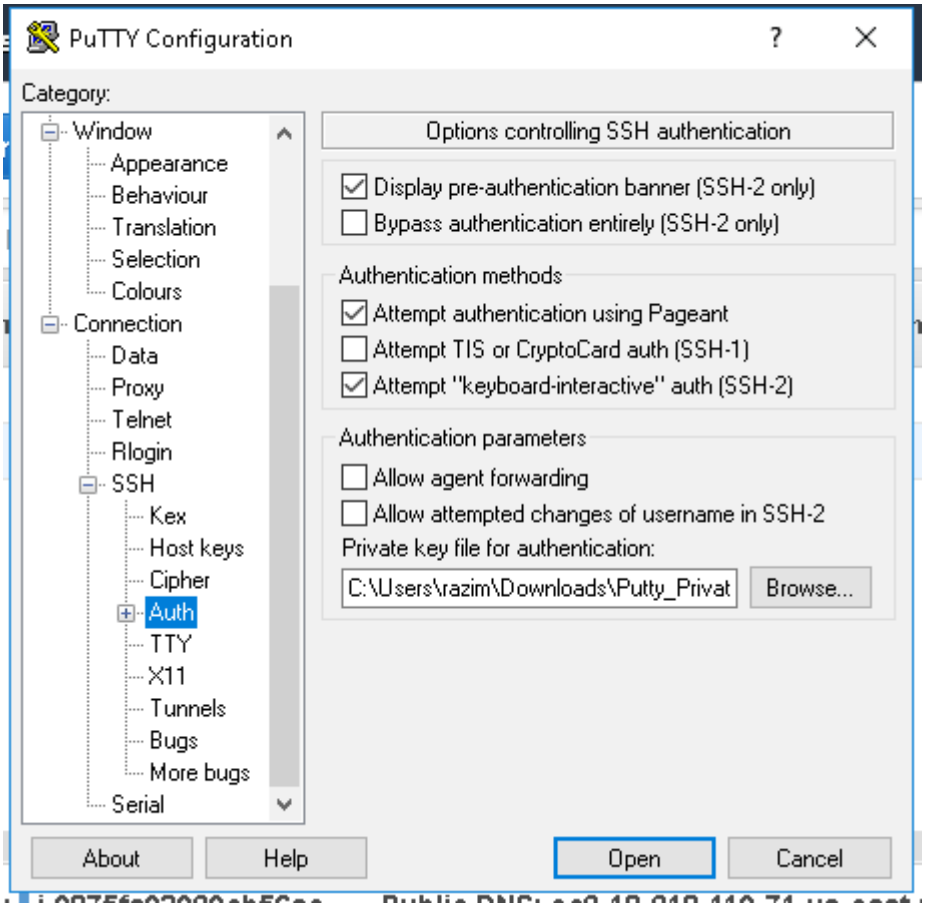


Download Putty and load your KeyPair.pem from AWS in Putty Gen.

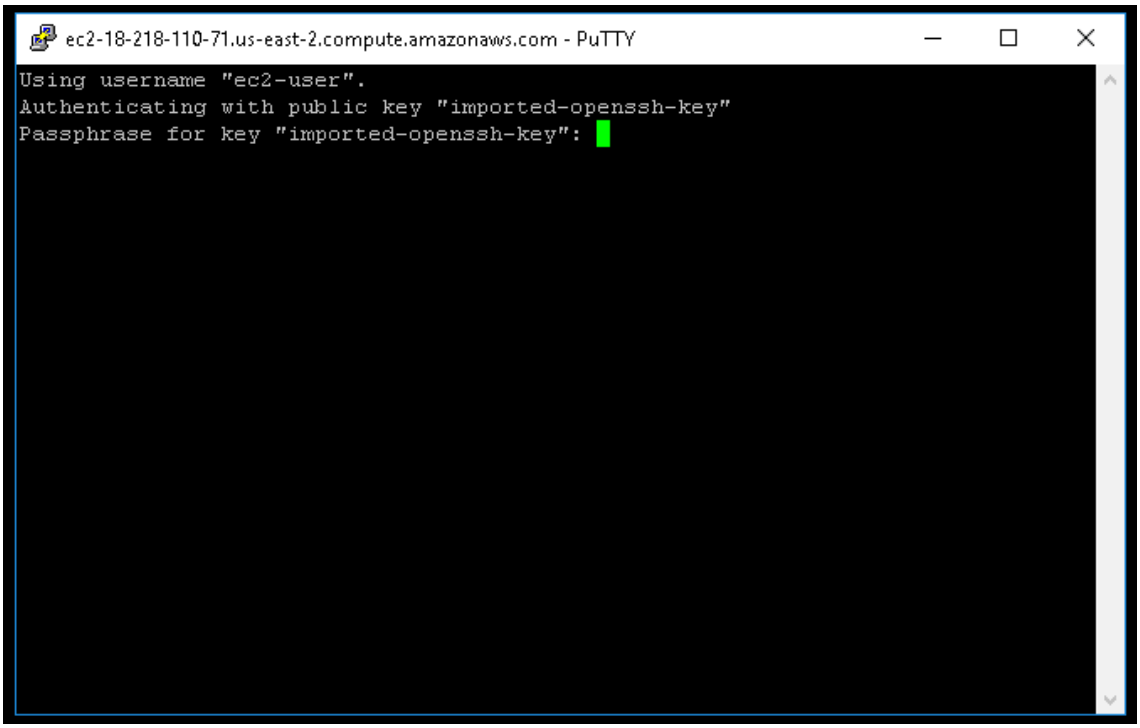


Open a Putty window and log in as ec2-user@...your Public DNS (IPv4) at AWS (bottom right)

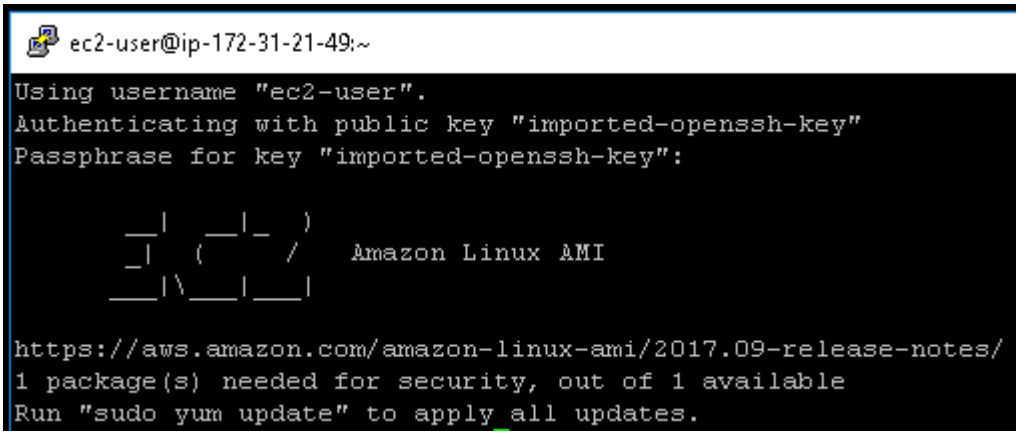




Enter the password you created along with the KeyPair.pem



You’re in



Download Anaconda3

```
wget https://repo.continuum.io/archive/Anaconda3-5.1.0-Linux-x86_64.sh
```

Install Anaconda 3

```
bash Anaconda3-4.4.0-Linux-x86_64.sh
```

```
vim .bashrc
```

```
CTRL+C below
```

```
export PATH="/home/ec2-user/anaconda3/bin:$PATH"
```

```
(for Ubuntu instances)
```

```
export PATH="/home/ubuntu/anaconda3/bin:$PATH"
```

```
type "i" SHIFT + INSERT
```

```
ESC + ":wq" or :q! To exit without saving
```

Create a Jupyter Password:

```
ipython
from IPython.lib import passwd
passwd()
```

```
IPython 5.3.0 -- An enhanced Interactive Python.
?         -> Introduction and overview of IPython's
%quickref -> Quick reference.
help      -> Python's own help system.
object?   -> Details about 'object', use 'object??'

In [1]: from IPython.lib import passwd

In [2]: passwd()
Enter password:
Verify password:
Out[2]: 'sha1:49d9a3c06898:20ce3bbca0ccf25117653aec8
```

Type Exit

Save this code:

'sha1:49d9a3c06898:20ce3bbca0ccf25117653aec8a7a93...'

Create a new key to be used as a certificate:

```
cd
mkdir ssl
cd ssl
sudo openssl req -x509 -nodes -days 365 -newkey rsa:1024 -keyout "cert.key" -out "cert.pem" -batch
```

```
ec2-user@ip-172-31-21-49:~/certs

In [3]: exit
[ec2-user@ip-172-31-21-49 ~]$ jupyter notebook --generate-config
Writing default config to: /home/ec2-user/.jupyter/jupyter_notebook_config.py
[ec2-user@ip-172-31-21-49 ~]$ mkdir certs
[ec2-user@ip-172-31-21-49 ~]$ cd certs
[ec2-user@ip-172-31-21-49 certs]$ sudo openssl req -x509 -nodes -days 365 -newke
y rsa:1024 -keyout mycert.pem -out mycert.pem
Generating a 1024 bit RSA private key
.....................................++++++
...++++++
writing new private key to 'mycert.pem'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [XX]:BR
State or Province Name (full name) []:Sao Paulo
Locality Name (eg, city) [Default City]:Sao Paulo
Organization Name (eg, company) [Default Company Ltd]:
```

vi ~/.jupyter/jupyter_notebook_config.py

CTRL+C the code below with your sha1 key, go to Putty. To insert text in VIM, type “i”:

```
c = get_config()  # Get the config object.
c.NotebookApp.certfile = u'/home/ubuntu/ssl/cert.pem' # path to the certificate we generated
c.NotebookApp.keyfile = u'/home/ubuntu/ssl/cert.key' # path to the certificate key we generated
c.IPKernelApp.pylab = 'inline'  # in-line figure when using Matplotlib
c.NotebookApp.ip = '*'  # Serve notebooks locally.
c.NotebookApp.open_browser = False  # Do not open a browser window by default when using notebooks.
c.NotebookApp.password ='sha1:49d9a3c06898:20ce3bbca0ccf25117653aec8a7a93…'
```

SHIFT+INSERT to paste into VIM

ESC and type “:wq” to exit

Type:

```
mkdir Notebooks
cd Notebooks
```

jupyter notebook

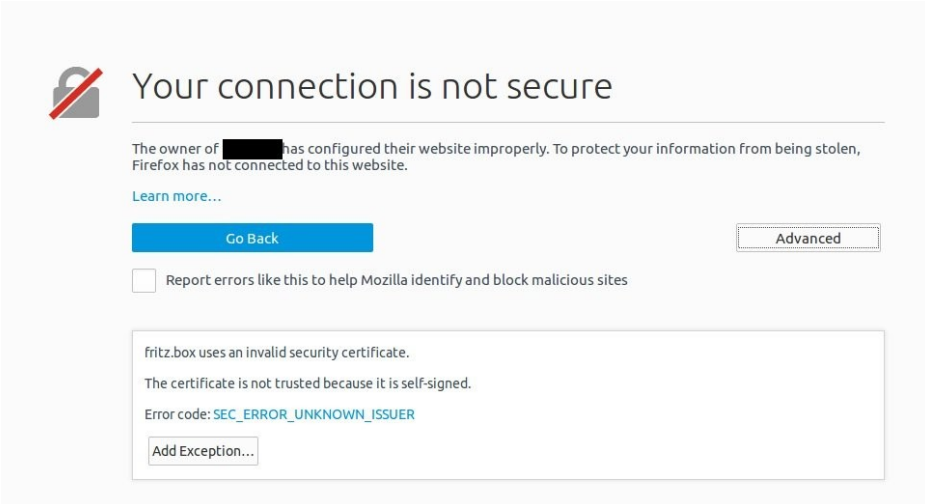
You will get

```
Using username "ec2-user".
Authenticating with public key "imported-openssh-key"
Passphrase for key "imported-openssh-key":
Last login: Sun Jan 14 10:49:46 2018 from 179.209.47.139

       __|  __|_  )
       _|  (     /   Amazon Linux AMI
      ___|\___|___|

https://aws.amazon.com/amazon-linux-ami/2017.09-release-notes/
1 package(s) needed for security, out of 1 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-21-49 ~]$ cd Notebooks
[ec2-user@ip-172-31-21-49 Notebooks]$ jupyter notebook
[I 12:52:23.256 NotebookApp] Serving notebooks from local directory: /
ser/Notebooks
[I 12:52:23.257 NotebookApp] 0 active kernels
[I 12:52:23.257 NotebookApp] The Jupyter Notebook is running at: https
 addresses on your system]:8888/
[I 12:52:23.257 NotebookApp] Use Control-C to stop this server and shu
 kernels (twice to skip confirmation).
```

Go to Firefox and enter your PublicDNS address, with https:// before and :8888 after

`https://ec2-54-144-47-200.compute-1.amazonaws.com:8888/`

Your browser will show the following screen:



Add security exception

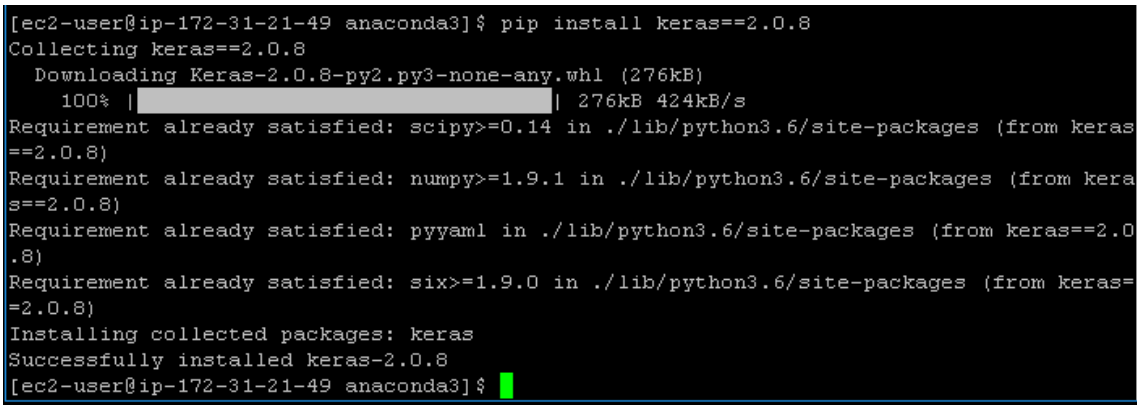
Enter password

WE’RE DONE !

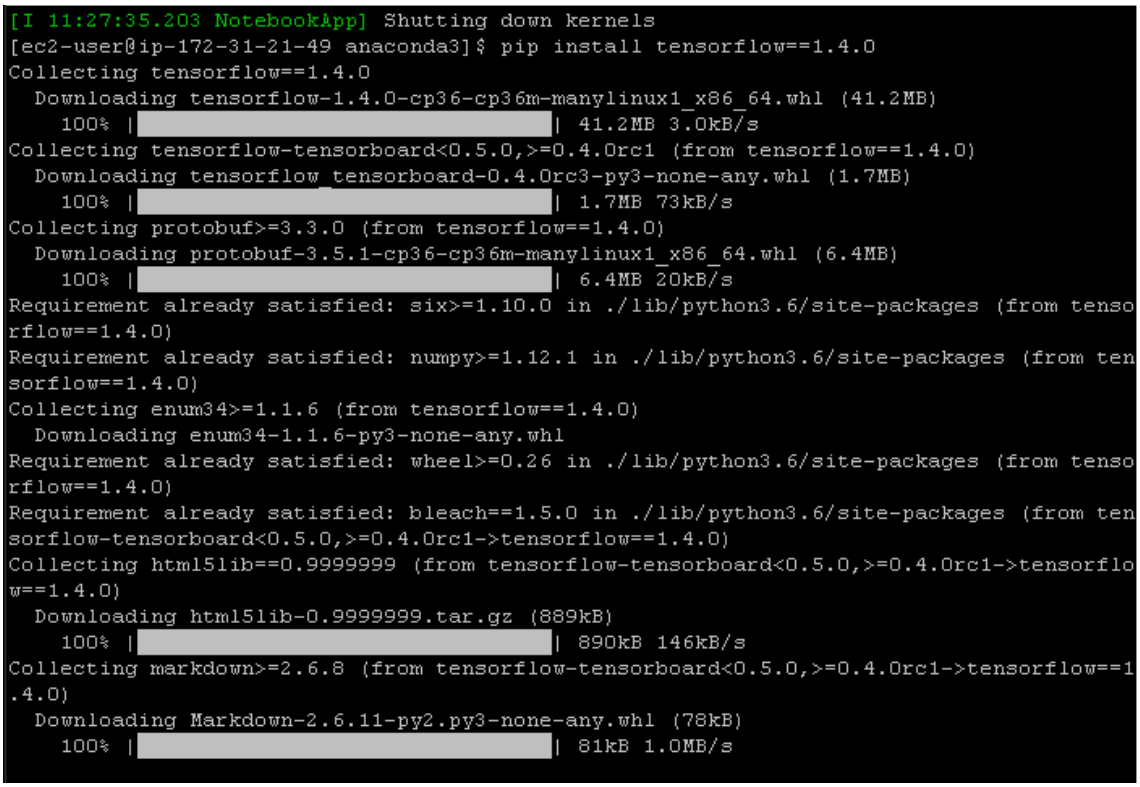
If you want to install Install Keras and Tensorflow in Jupyter

cd anaconda3

pip install keras



pip install tensorflow-gpu



Type:

jupyter notebook