Assignment Solution

Project 1 Solution: - Need to deploy a web server in Windows instance

1. Firstly, we create a windows instance by going in the Instances.
2. We have taken the below AMI ID- or can say OS(**Windows_Server-2012-R2)**
   (**Windows_Server-2012-R2_RTM-English-64Bit-Base-2020.08.12 (ami-00133f78ad56a5c91)**
3. And after selecting the default selection by choosing the default Storages and VPC, instance is created and running. (Note :- at the End it will ask for Key pair (create a new key pair or use the existing one, if you have)
4. After Instance is created need to Connect to it.
5. For this we use RDP Client to connect to it, download it there will download option.
6. Click the Desktop remote file to connect to the instance, it will ask for the password.
7. For Password, we need to decrypt it (as we have generated the Key pair, upload that key pair and the password will be decrypted.)

Now Successfully windows server is open and we need to install the web server in it.

Below are the steps to install the IIS web server.

1. Open the power shell.
2. Type the below command the web server will be installed.
   Install-WindowsFeature -Name Web-Server –Include ManagementTools.

Now ISS web will be successfully installed.

To Verify it use the Public IP into the browser and you will be able to see the Information.

In my Case below are the IP details.

Public DNS (IPv4) :- ec2-13-58-193-22.us-east-2.compute.amazonaws.com

IPv4 Public IP :- 13.58.193.22

Project 2 Solution: - Need to deploy a ngnix web server in Ubuntu instance.

1. Firstly created the Instance by using the below AMI ID or cay say OS.**(Ubuntu Server 18.04 LTS (HVM)**.
   ubuntu/images/hvm-ssd/ubuntu-bionic-18.04-amd64-server-20200810 (ami-0bbe28eb2173f6167)

2. Same steps were followed and we created a Ubuntu Instance .
3. Now to Connect to the instance, i have used Putty instead of MobaXterm Portable Edition.
4. Now doing SSH using putty first of all we need to convert the private key which we have downloaded earlier to use the putty.

Below are the steps for connecting to the linux instance from windows using putty.

1. Install Putty in your local computer.
2. Now we need to convert the private key or can say key pair which we have downloaded while creating the instance. Using puttygen Without this we cannot decrypt the password and we will not be able to login into it.

To Convert the private key.

1. Open the Puttygen in your local computer , below screen will come
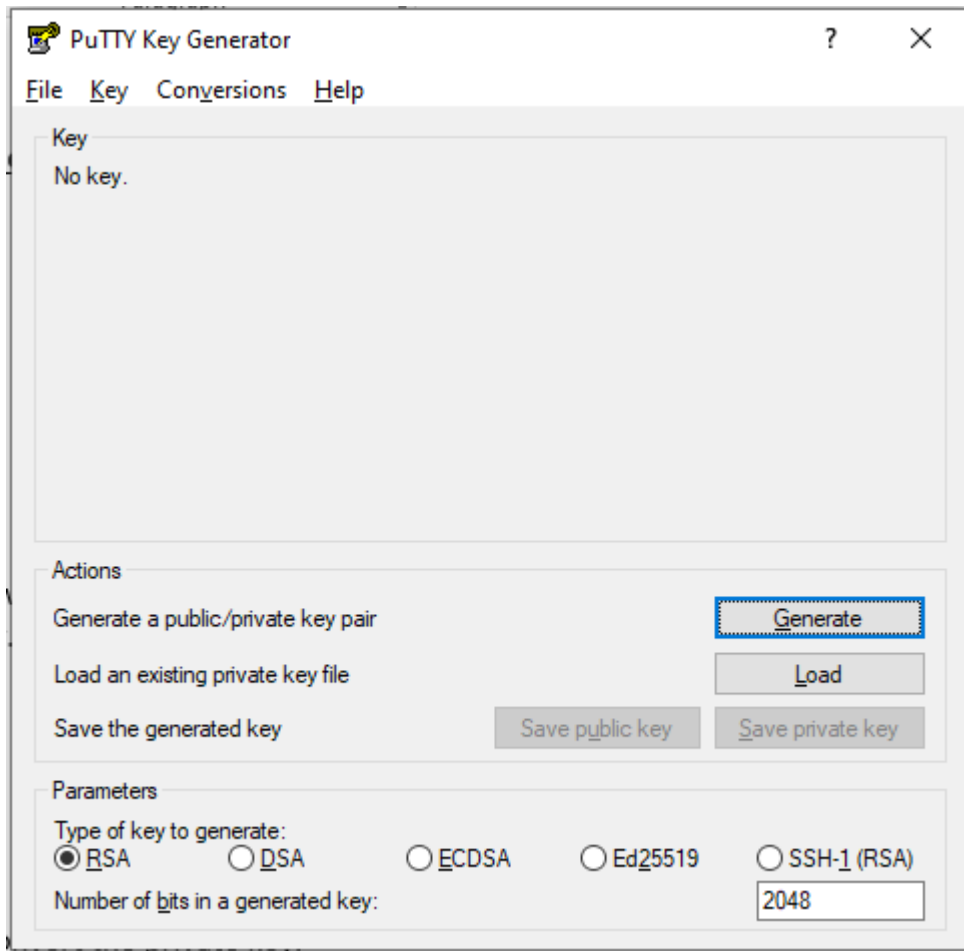
2. Under type of key to generate use RSA.
3. Choose Load.
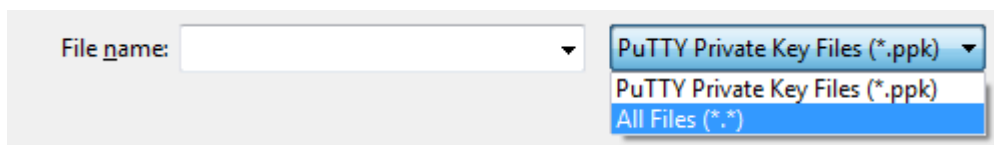
By default, PuTTYgen displays only files with the extension .ppk. To locate your .pem file which we have created earlier choose the option to display files of all types and select the pem file.

4. Select your. pem file for the key pair that you specified when you launched your instance and choose Open. PuTTYgen displays a notice that the .pem file was successfully imported. Choose OK
5. To save the key in the format that Putty can use, choose Save private key. Puttygen displays a warning about saving the key without a passphrase. Choose Yes

6. Specify the same name for the key that you used for the key pair (for example, my-key-pair) and choose Save. Putty automatically adds the .ppk file extension.

Your private key is now in the correct format for use with Putty. We can now connect to your instance using Putty's SSH client.

Now start the putty.
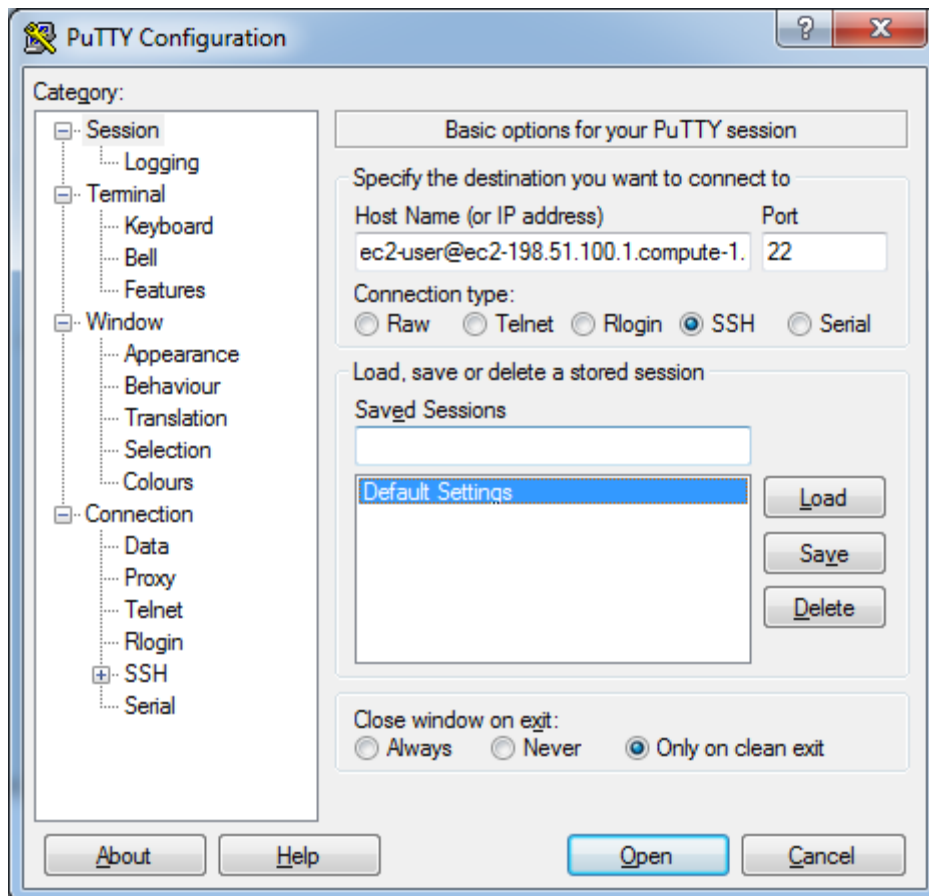
Type the Public IP address and port valuer to 22.

Now load the key which we have created using the puttygen .

In the Category pane, expand Connection, expand SSH, and then choose Auth.

Load the. ppk file and open.

Below login prompt will automatically open.

```
PuTTY (inactive)
login as: ubuntu
Authenticating with public key "imported-openssh-key"
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.3.0-1032-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Mon Aug 17 15:32:04 UTC 2020

  System load:  0.0               Processes:           90
  Usage of /:   14.4% of 7.69GB   Users logged in:     0
  Memory usage: 17%               IP address for eth0: 172.31.45.44
  Swap usage:   0%

0 packages can be updated.
0 updates are security updates.


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-45-44:~$ sudo
```

Now Login Prompt is successfully open and we need to nginx web server.

Simply copy the command below and paste in the bash to install the ngnix web server.

sudo apt-get –y update

sudo apt-get –y install nginx

```
root@ip-172-31-45-44:~# apt-get -y install nginx
```

Now successfully Nginx web server is installed.

To test it if it's is successfully installed or not , use the public IP into the browser and see the Welcome to ngnix Web Page.

In my Case below are the IP details.

Public DNS (IPv4) :- ec2-3-15-32-223.us-east-2.compute.amazonaws.com

IPv4 Public IP :- 3.15.32.223