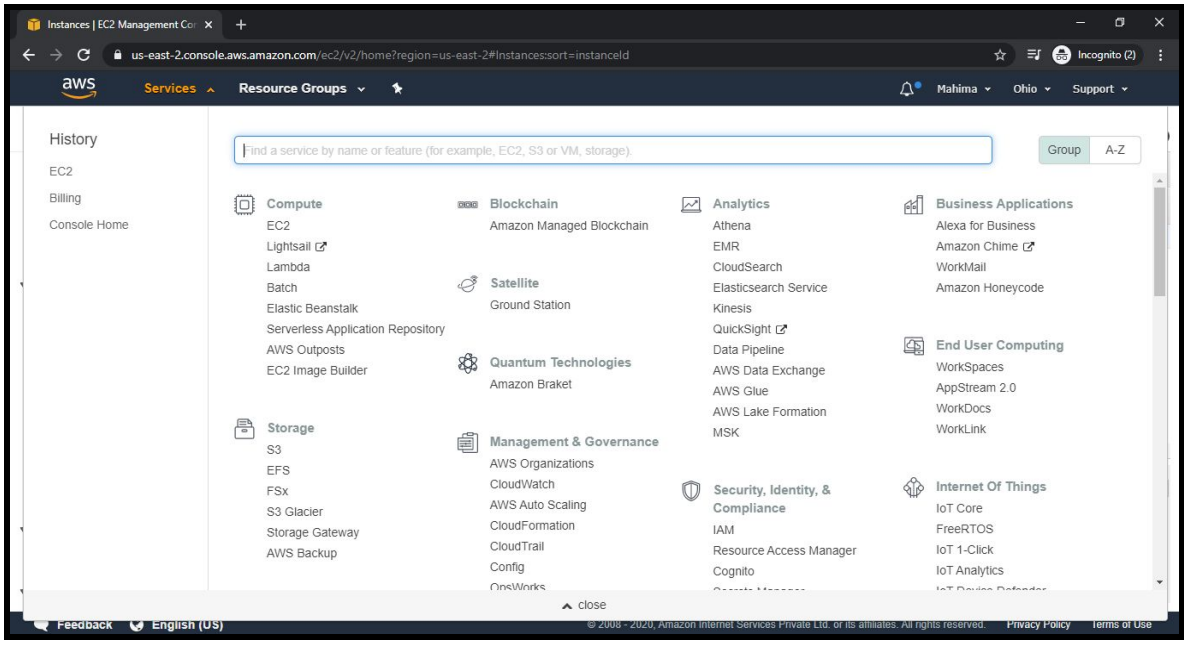
PROJECT - I

DEPLOYING AN IIS WEB SERVER ON WINDOWS INSTANCE

TASK - I: Create a Windows Instance using AMI - Microsoft Windows Server 2019 Base

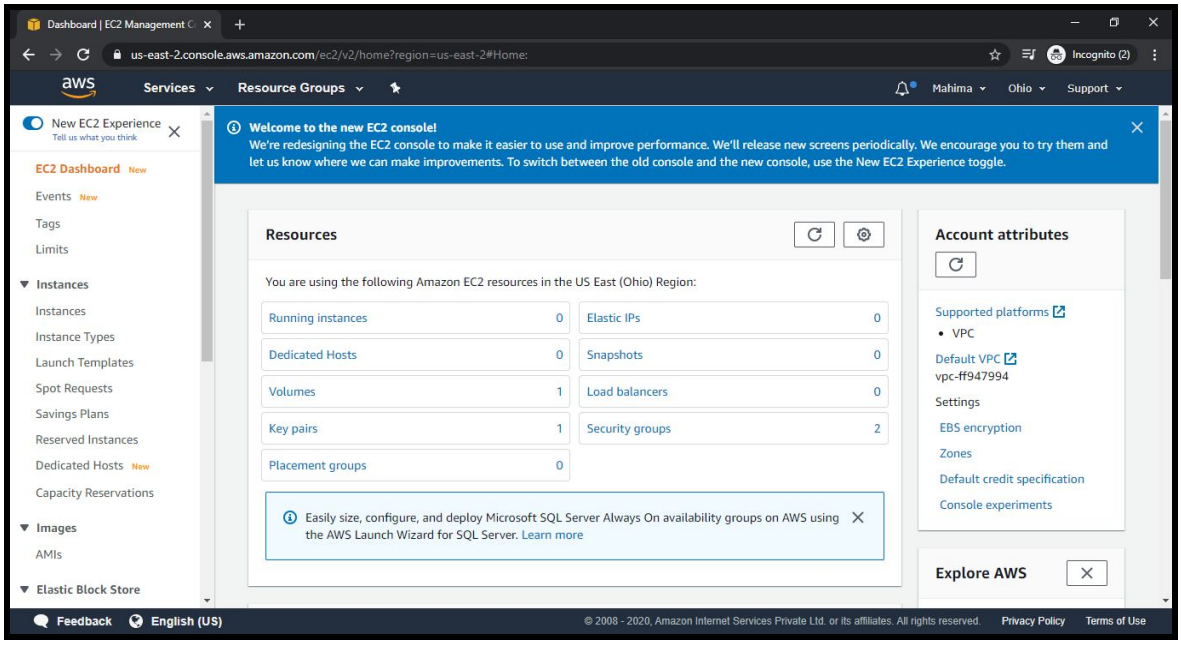
Step - 1:

Go to the AWS Management Console, click Services Tab and select EC2 from Compute service.



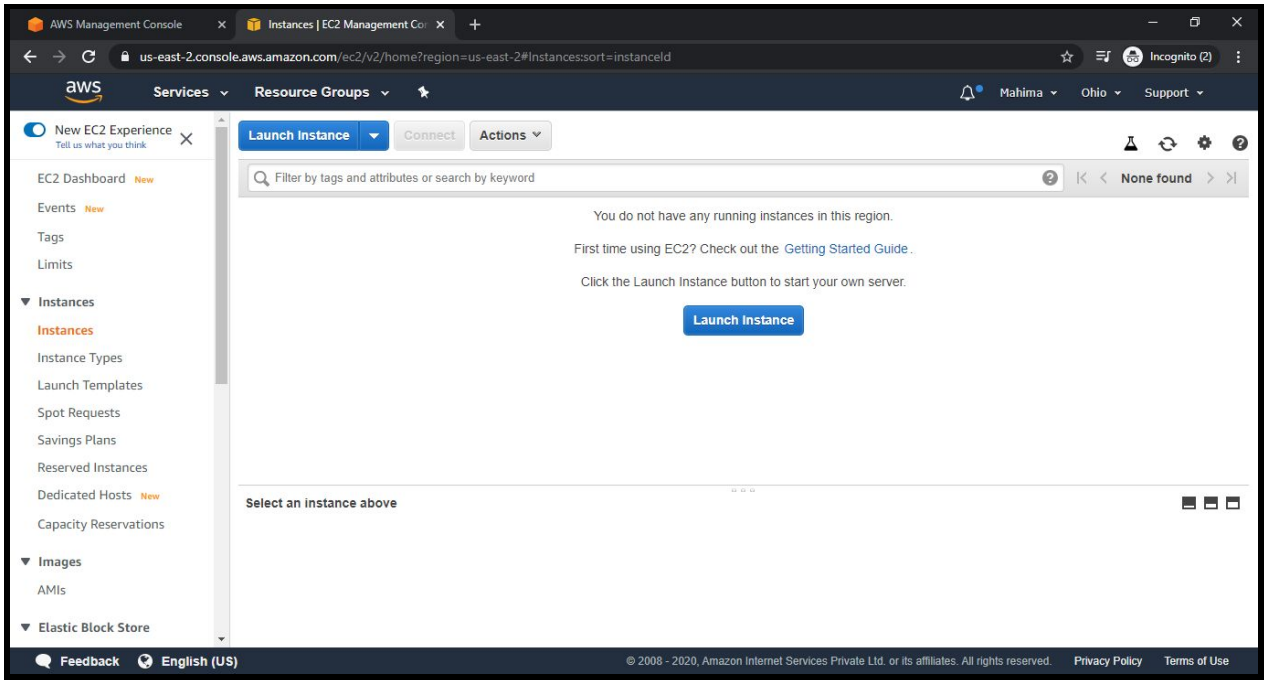
Step - 2:

On EC2 Dashboard, click on Running Instances displayed under the Resources Header.



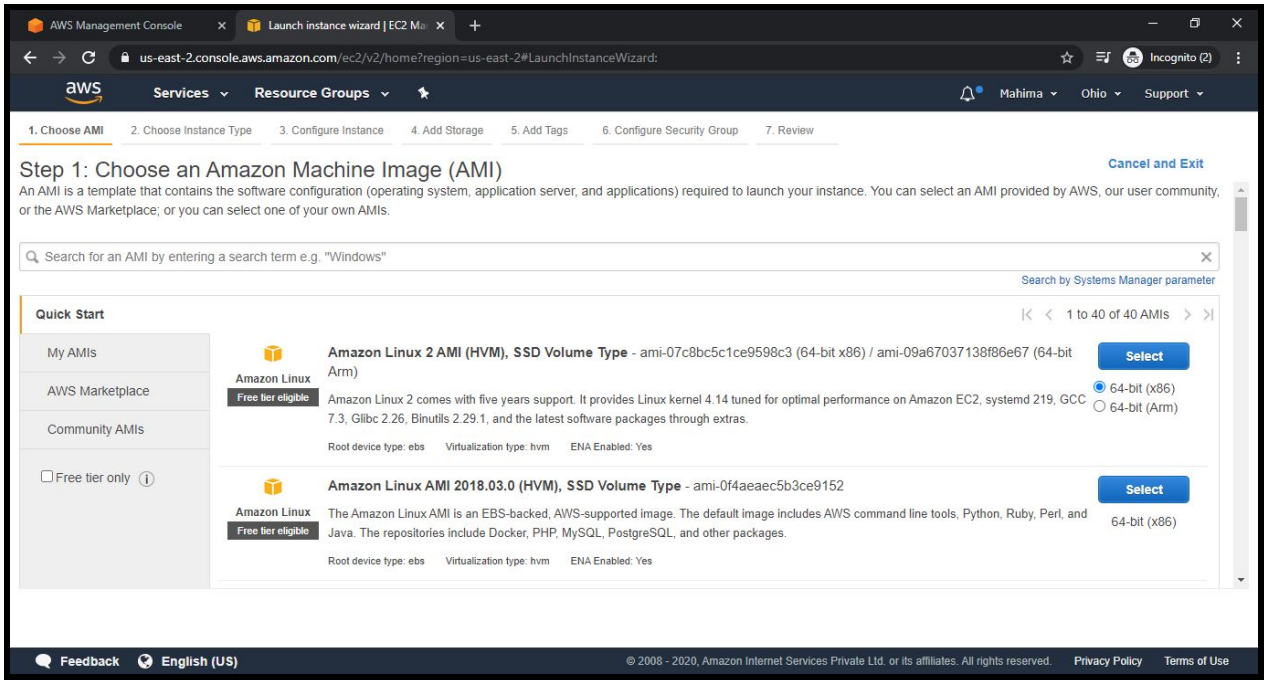
Step - 3:

Now, click on Launch Instance to create a new Virtual Machine i.e. Windows Server in our case.



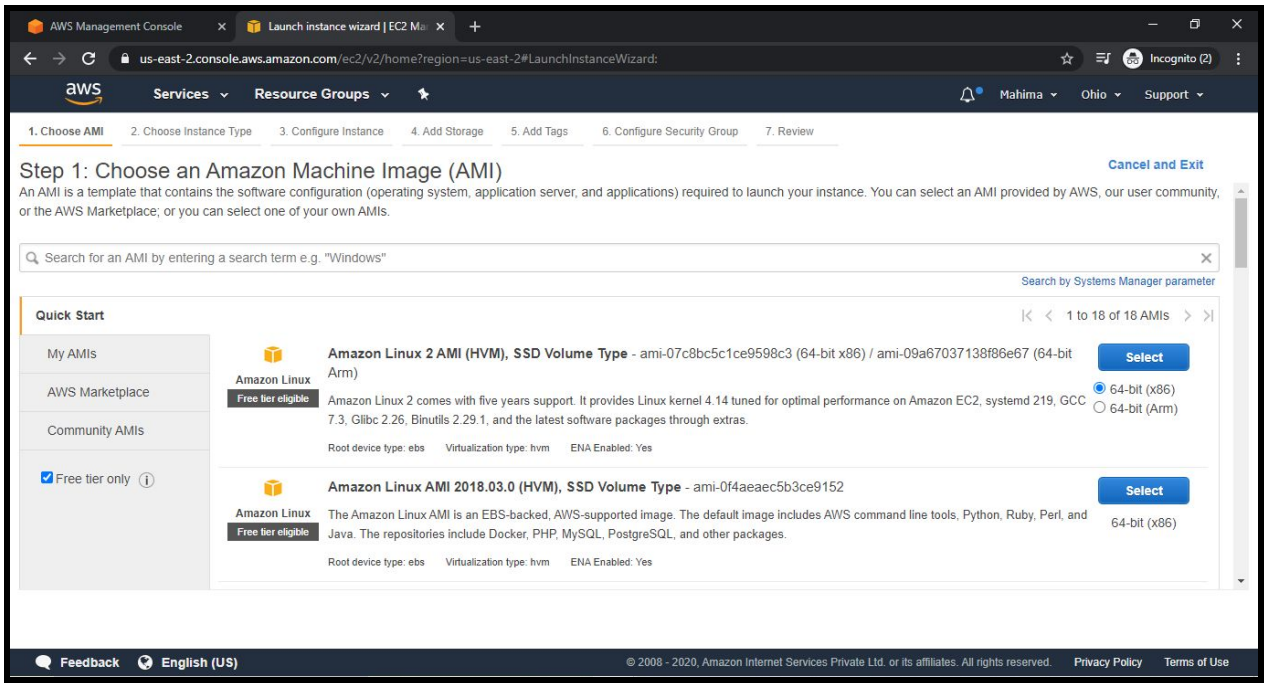
Step - 4:

First step in launching a machine is “Choose an Amazon Machine Image (AMI)” from a plethora of pre-existing images.



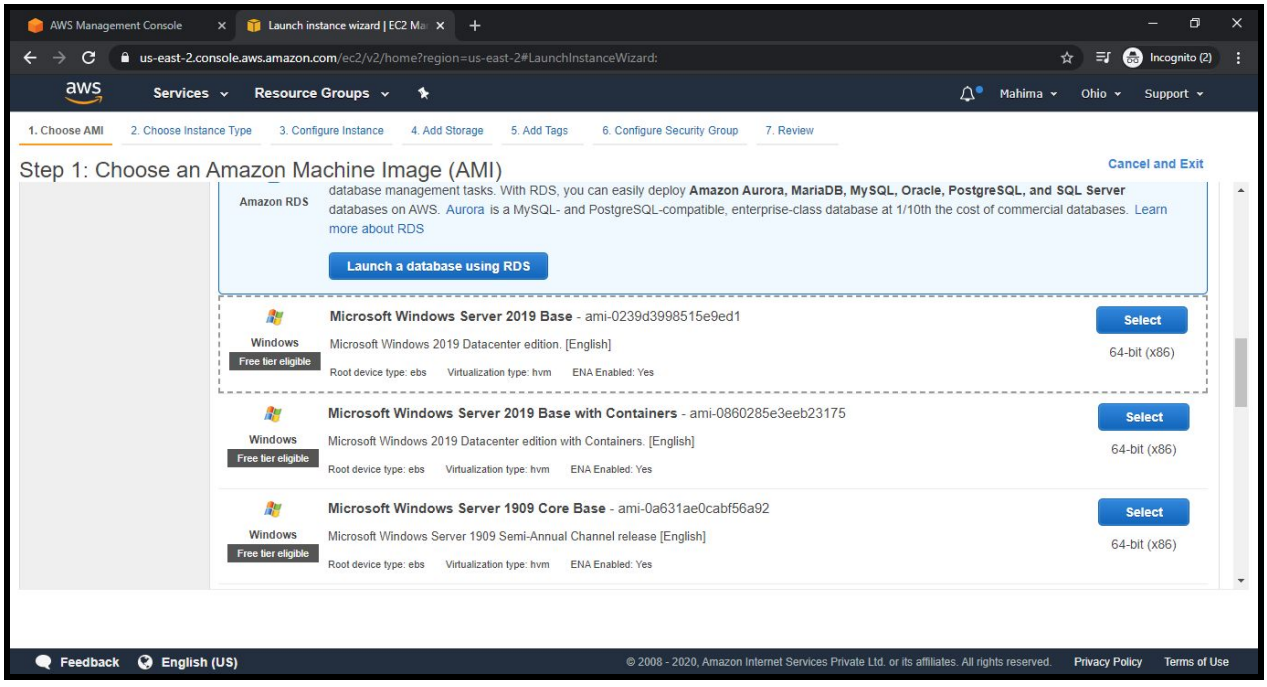
Step - 5:

From the left aligned menu bar, enable the “Free tier only” checkbox to list only free tier eligible resources available from AMI and avoid any additional charges from your account.



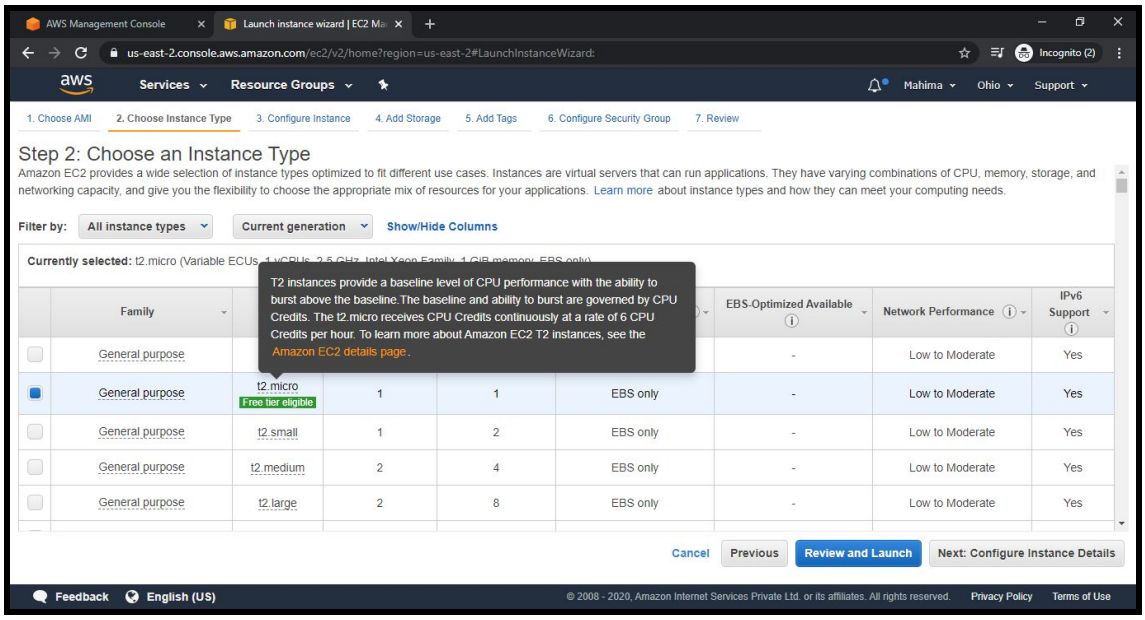
Step - 6:

Select “Microsoft Windows Server 2019 Base” or any other windows server eligible under the free-tier. Click “Next: Choose Instance Type”.



Step - 7:

Second step is to “Choose an Instance Type” which has varying combinations of CPU, memory, storage, and networking capacity. We are selecting “General Purpose t2 micro” instance type eligible under the free-tier. Click “Next: Configure Instance Details”.



Step - 8:

Third step is “Configure Instance Details” i.e.,

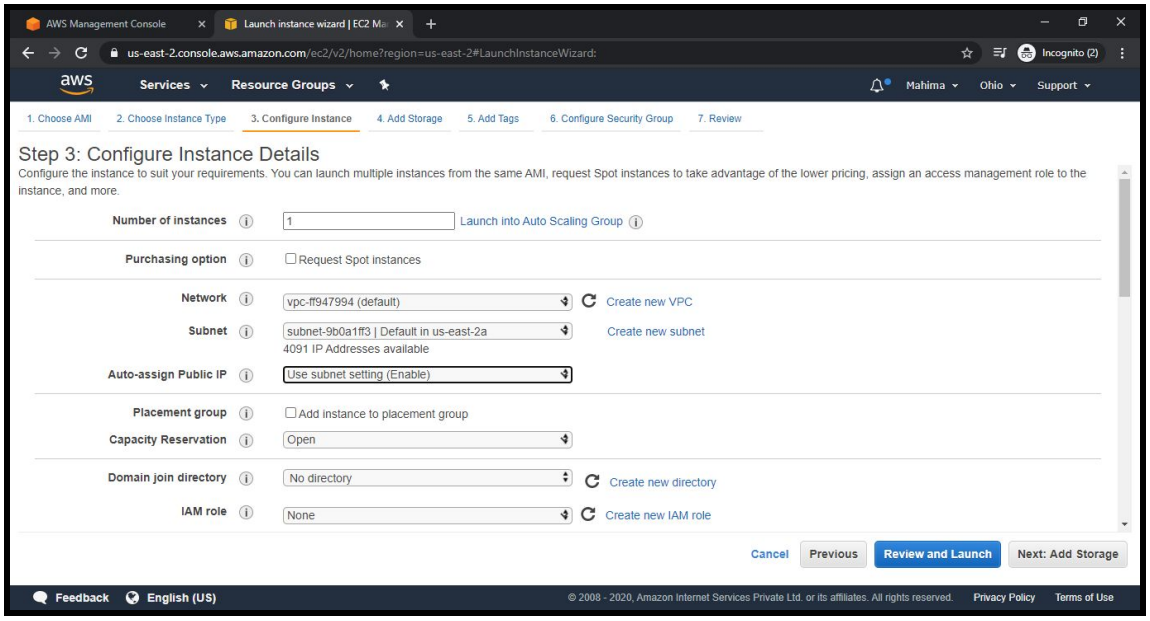
Number of Instances: 1

Network: default (Select a default VPC as of now)

Subnet: us-east-2a (Or any default subnet can be chosen)

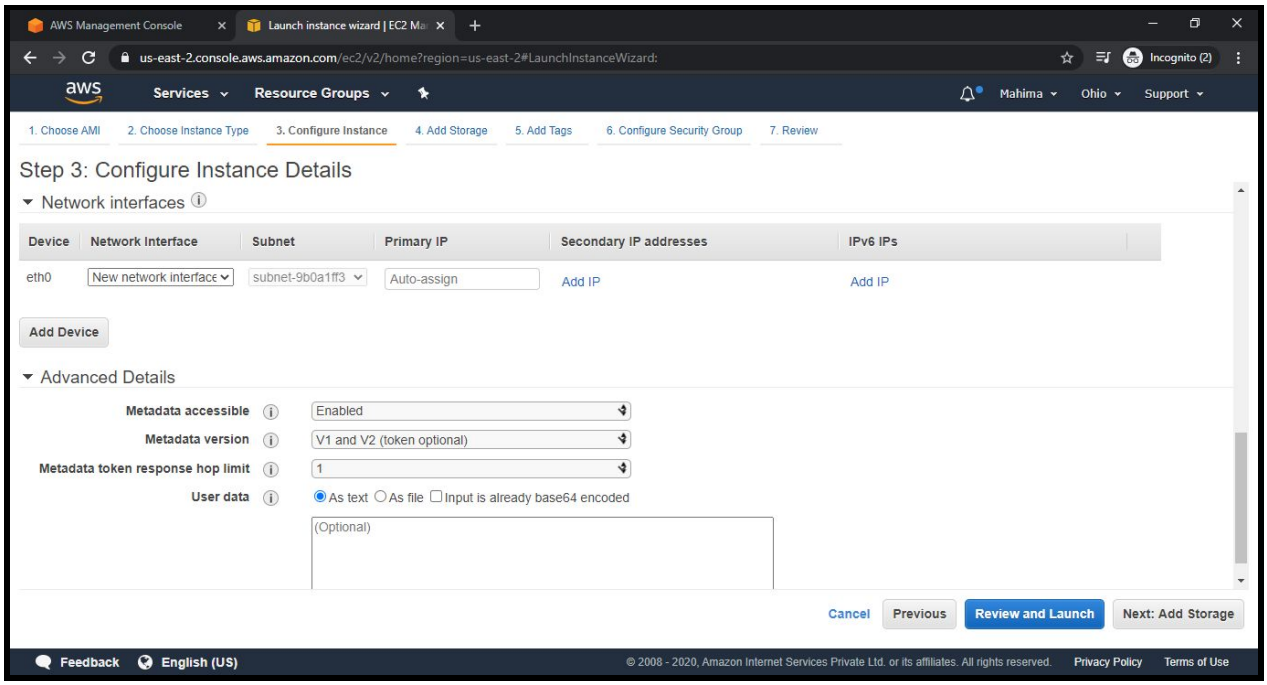
Auto-assign Public IP: Use subnet setting (Enable)

Rest leave all the parameters as default and click on the “i” icon corresponding to those parameters to understand the brief of each parameter.



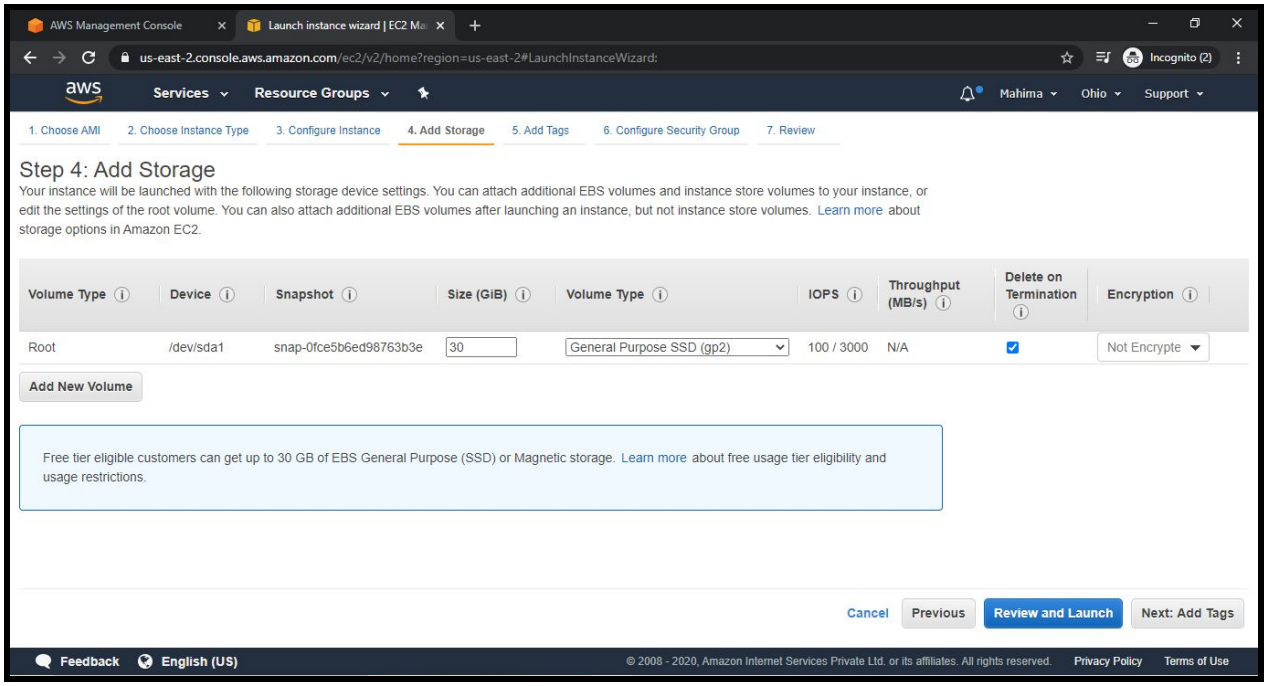
Step - 9:

Now keeping the “Network Interfaces” and “Advanced Details” section as default, click on “Next: Add Storage” to proceed to the next step.



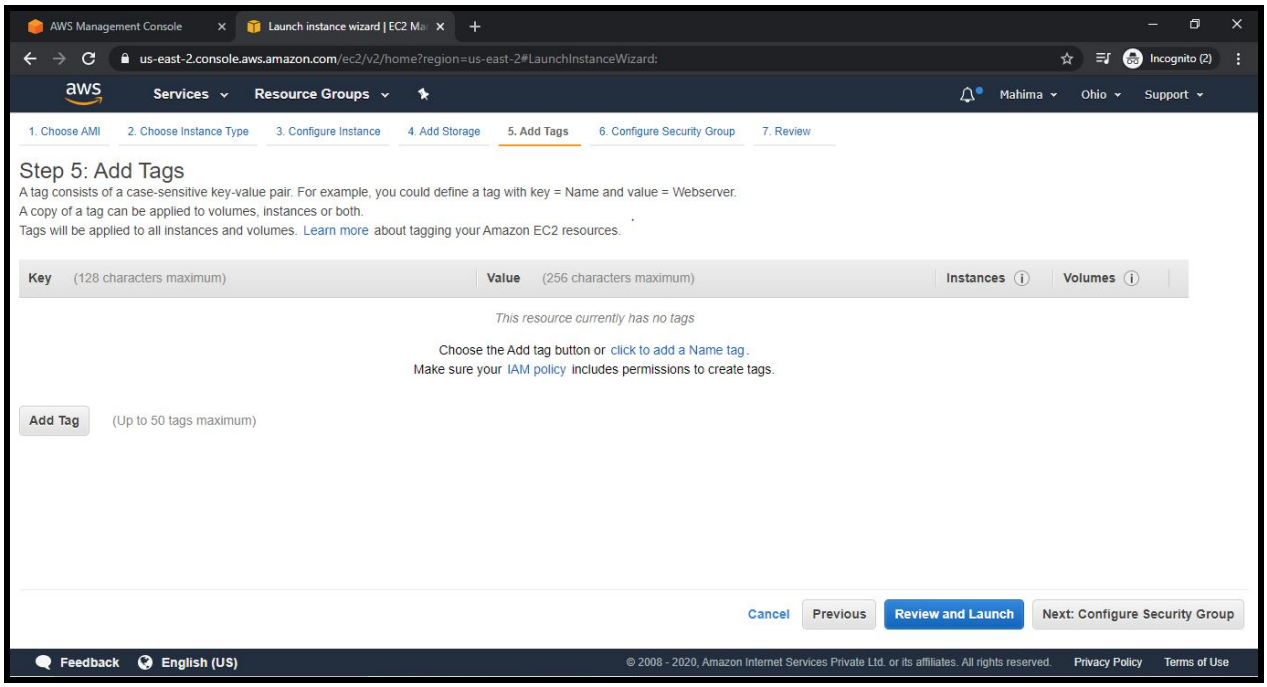
Step - 10:

Fourth step is by default, the size of the root volume would be “30 GIB” which can be kept as it is and then click “Next: Add Tags” to proceed to the next step.



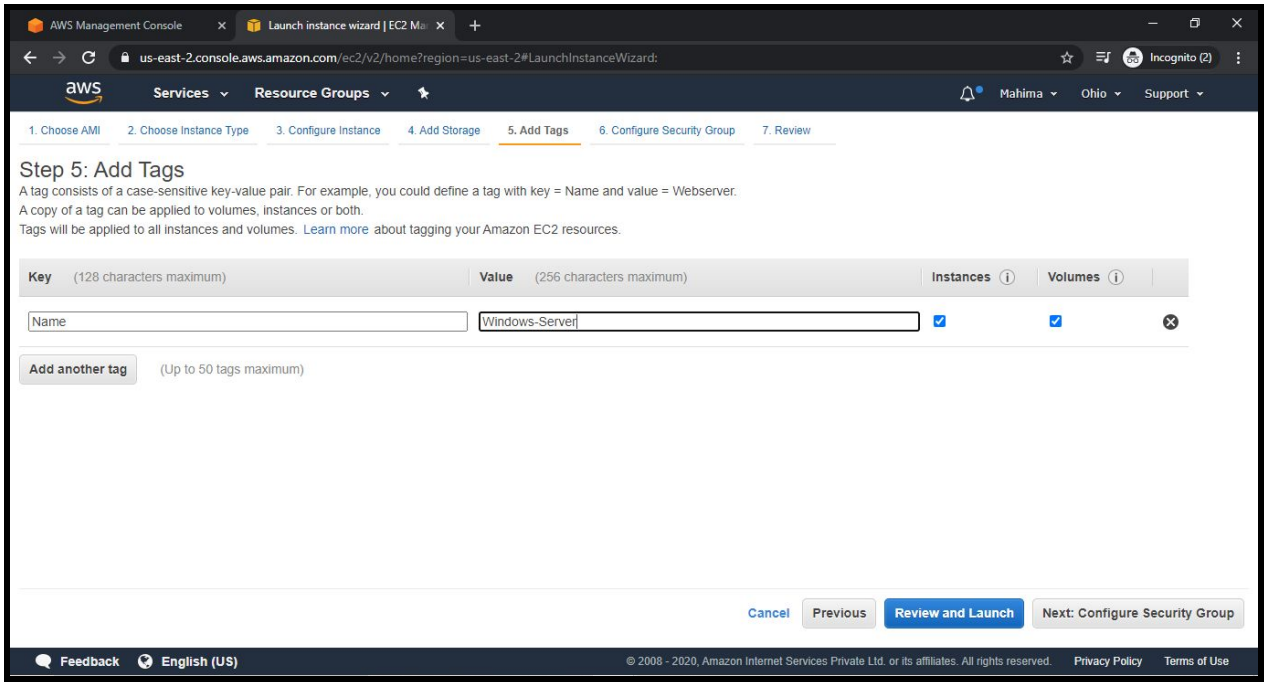
Step - 11:

Fifth step is adding a tag which is mainly used for us to filter out the required instance from a list of n number of Instances created i.e. giving an apt name to the VM as per our use case.



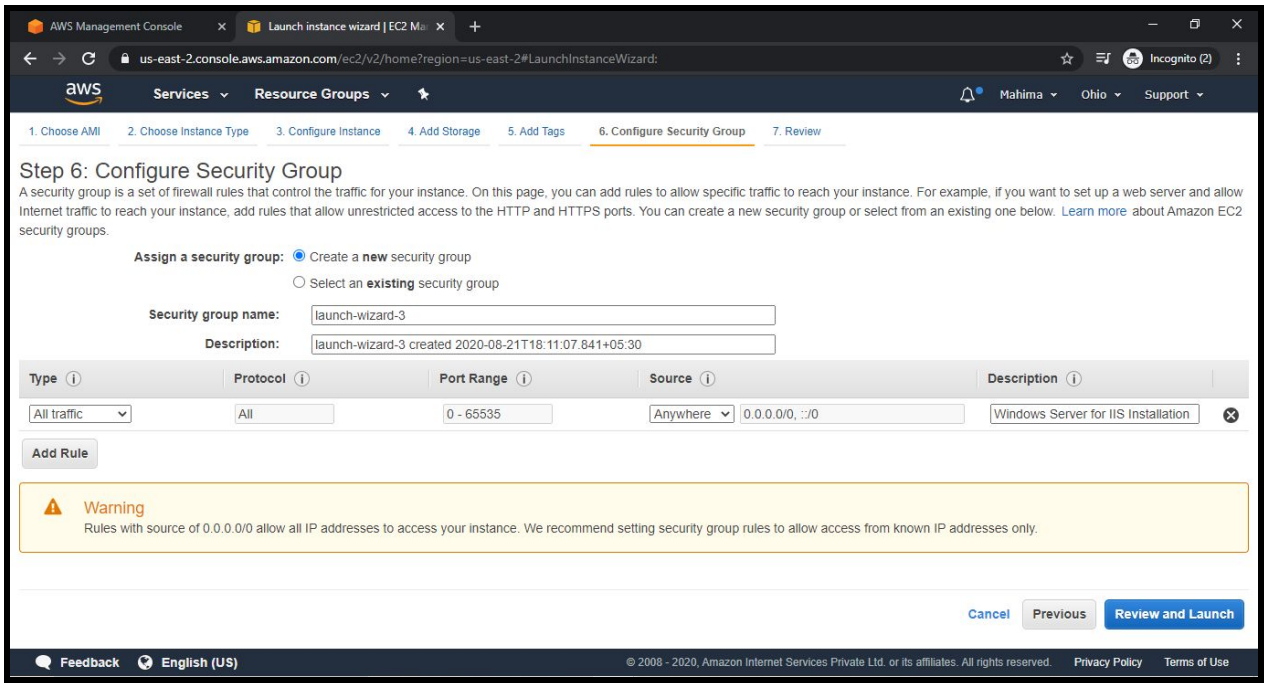
Step - 12:

Give a key-value pair to our VM i.e. Key - Name and Value - Windows-Server. Then click “Next: Configure Security Group” to proceed to the next step.



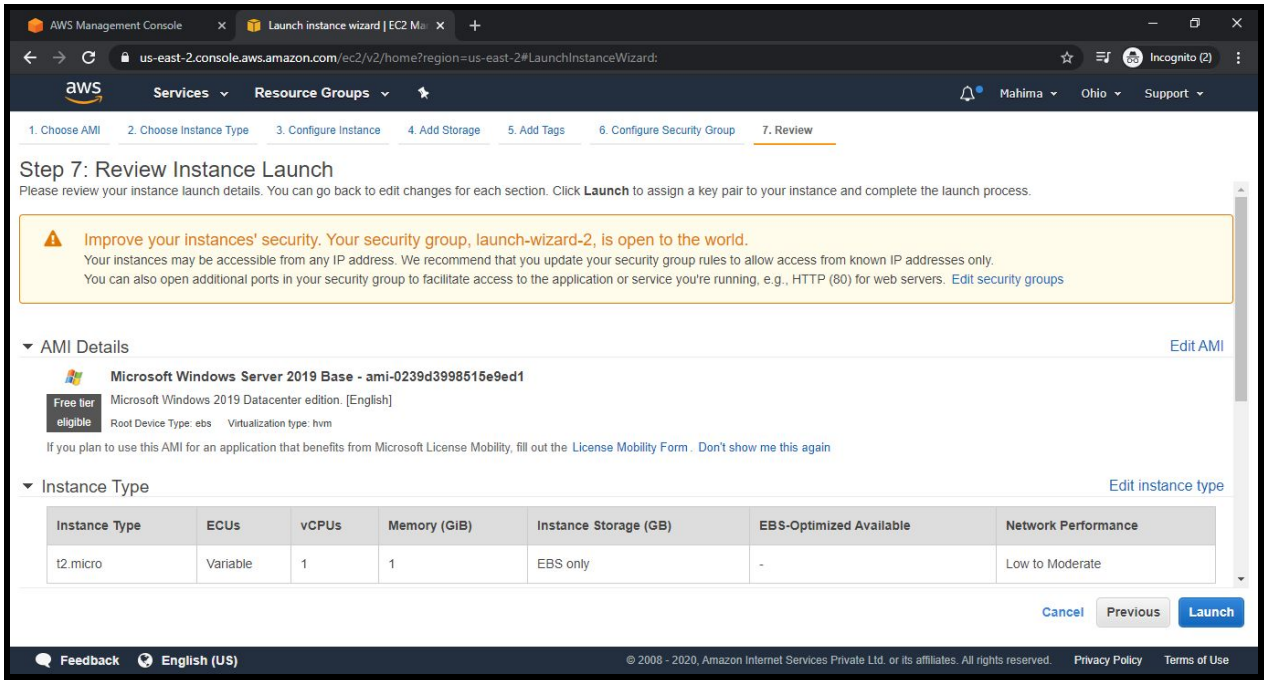
Step - 13:

Sixth step is “Configure Security Group”, we’ll create a new security group with “All traffic” enabled and source as “Anywhere” that means our VM can be accessed from anywhere and anyone without any specific restrictions. Also give a Description as “Windows Server for IIS Installation”. Then click “Review and Launch”.



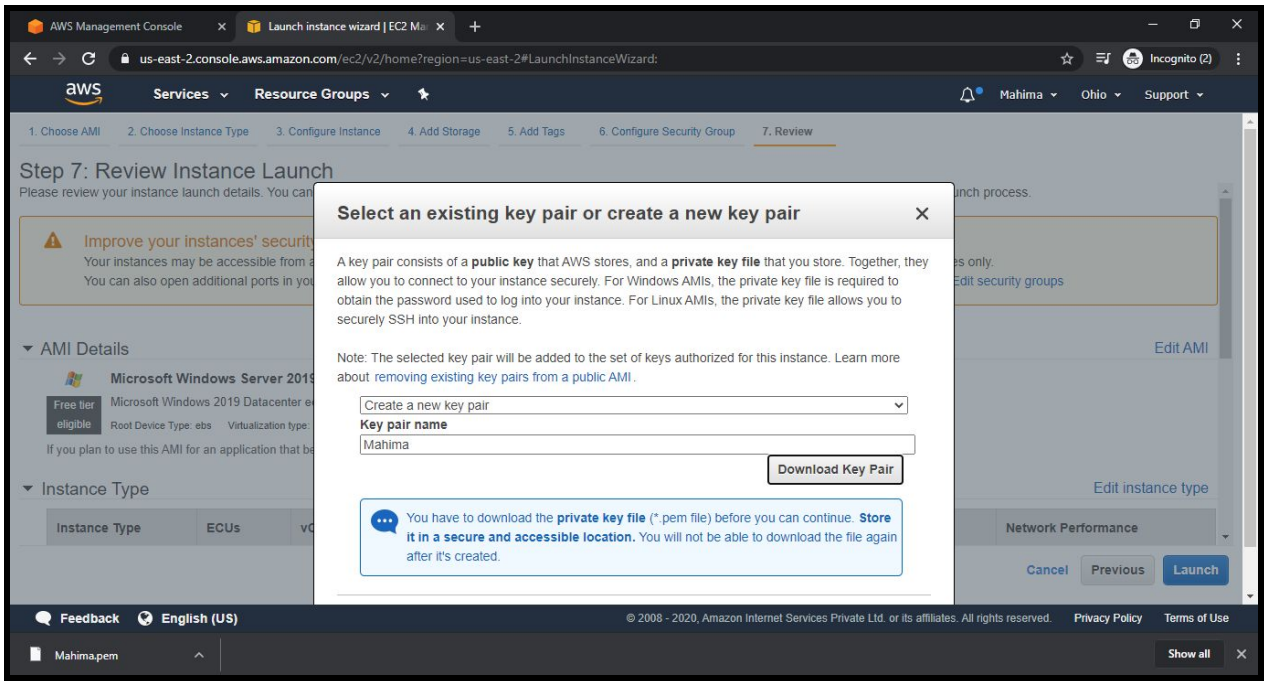
Step - 14:

After reviewing all the configurations selected and given for the VM, we can proceed to the Launch step and click the “Launch” button at the bottom right corner.



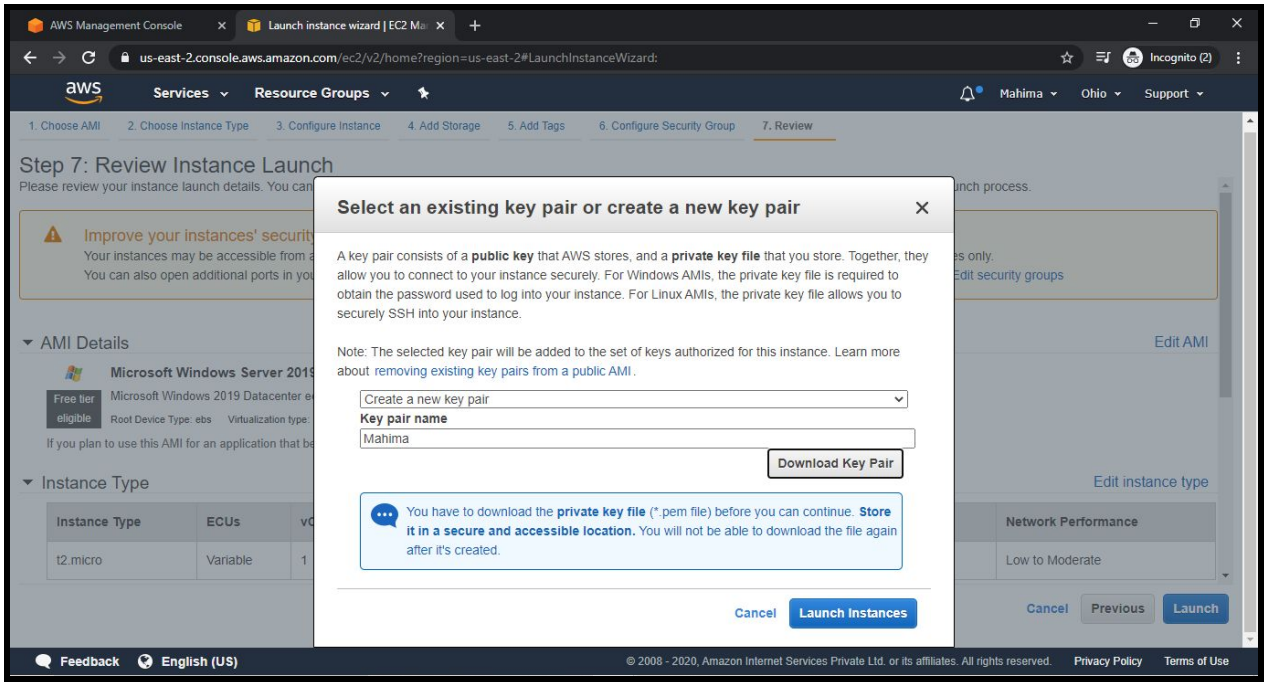
Step - 15:

Now, we have to “Select an existing key pair or create a new key pair” as a last step in the process of launching an Instance on AWS. From the dropdown, select “Create a new key pair” and give any name to that key pair according to you. Then “Download the Key Pair” to any safe location on your system.



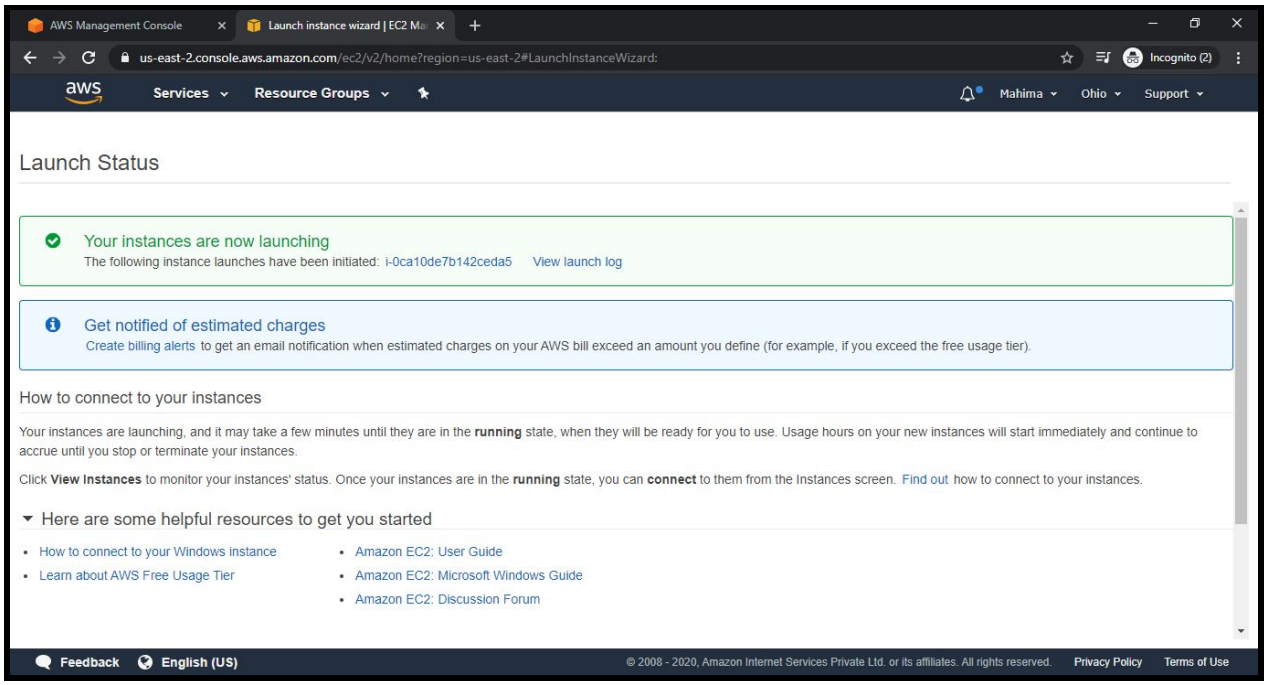
Step - 16:

After downloading the Key Pair, click on the “Launch Instances” button.



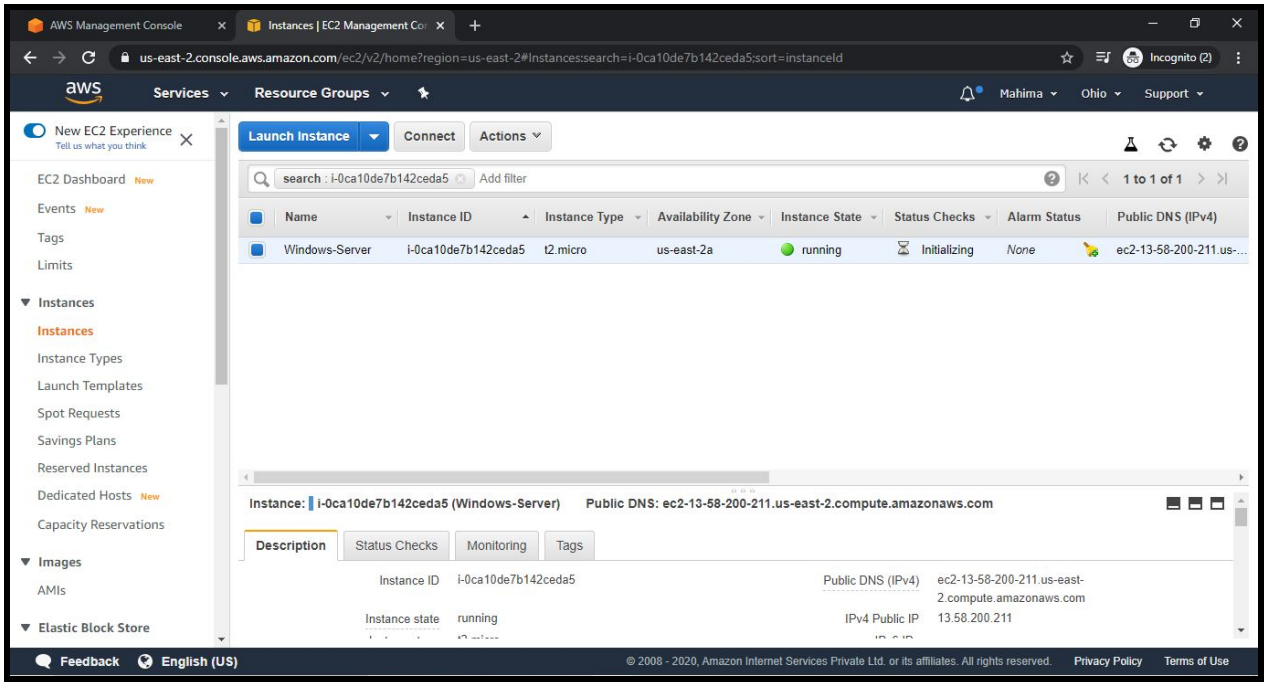
Step - 17:

Instance has started launching now, click on Instance ID just beside View launch log displayed under Launch Status Header.



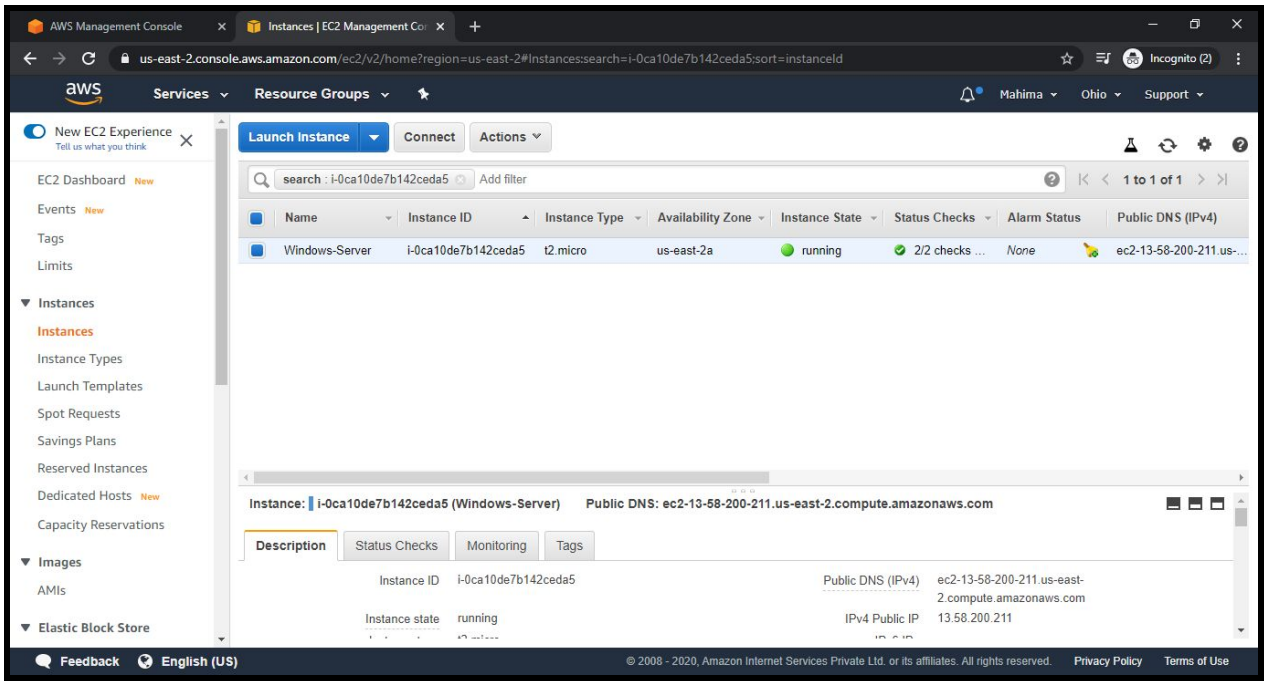
Step - 18:

Observe Status Checks would be “Initializing” at the beginning for the corresponding Instance ID, wait till the Status Checks becomes “2/2 checks”.



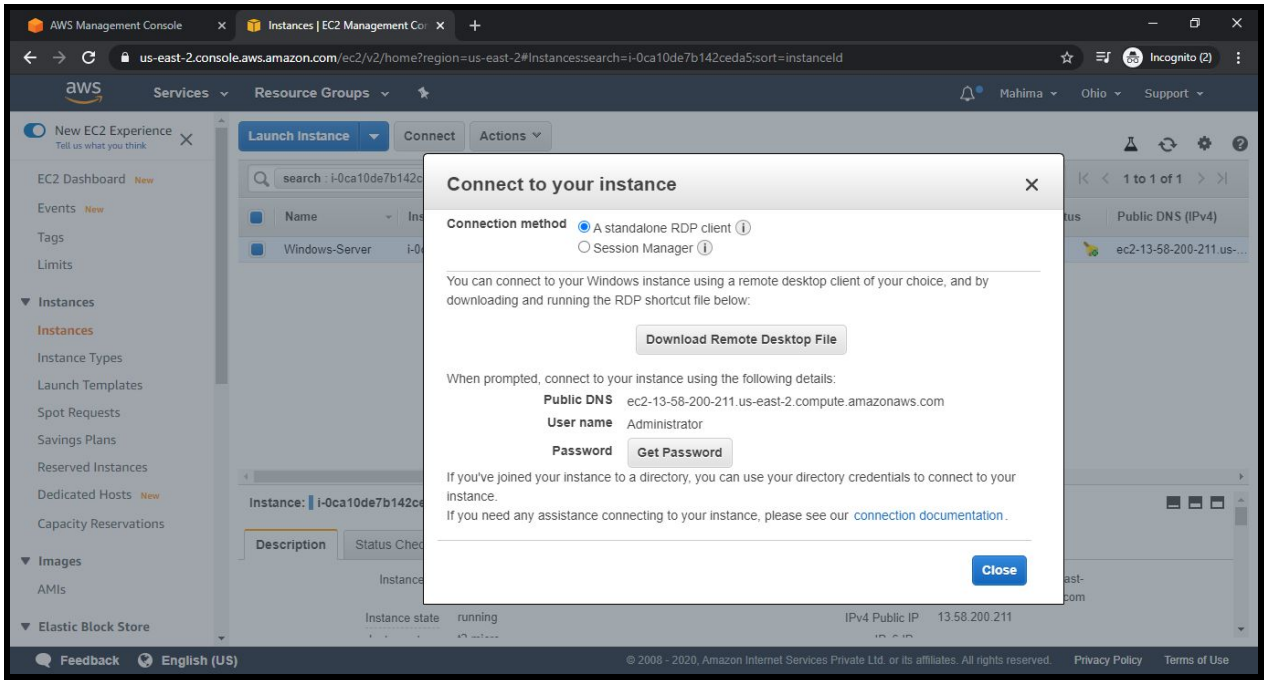
Step - 19:

We observe 2/2 status checks on the console, hence we are good to go and connect to the respective VM. Also observe the IPv4 Public IP under the Description Header on screenshot below for corresponding to Windows Instance created.



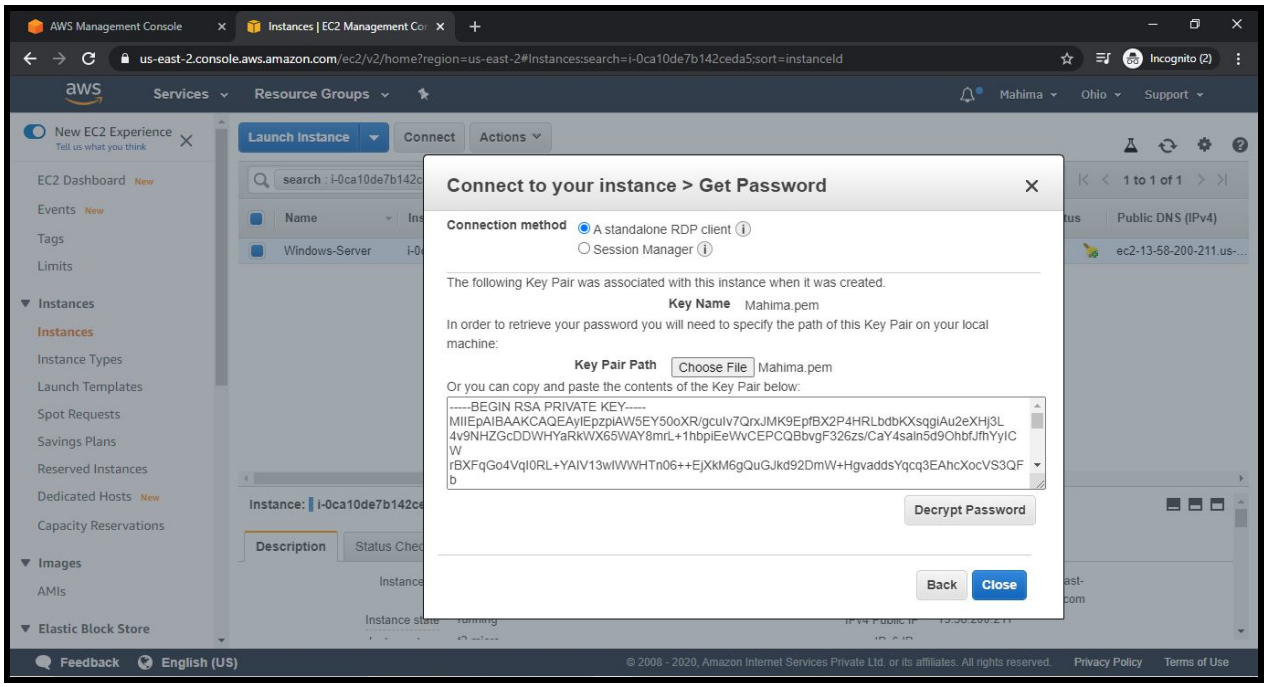
Step - 20:

Click on the “Connect” Button and a popup would be opened and then click on “Get Password” Button.



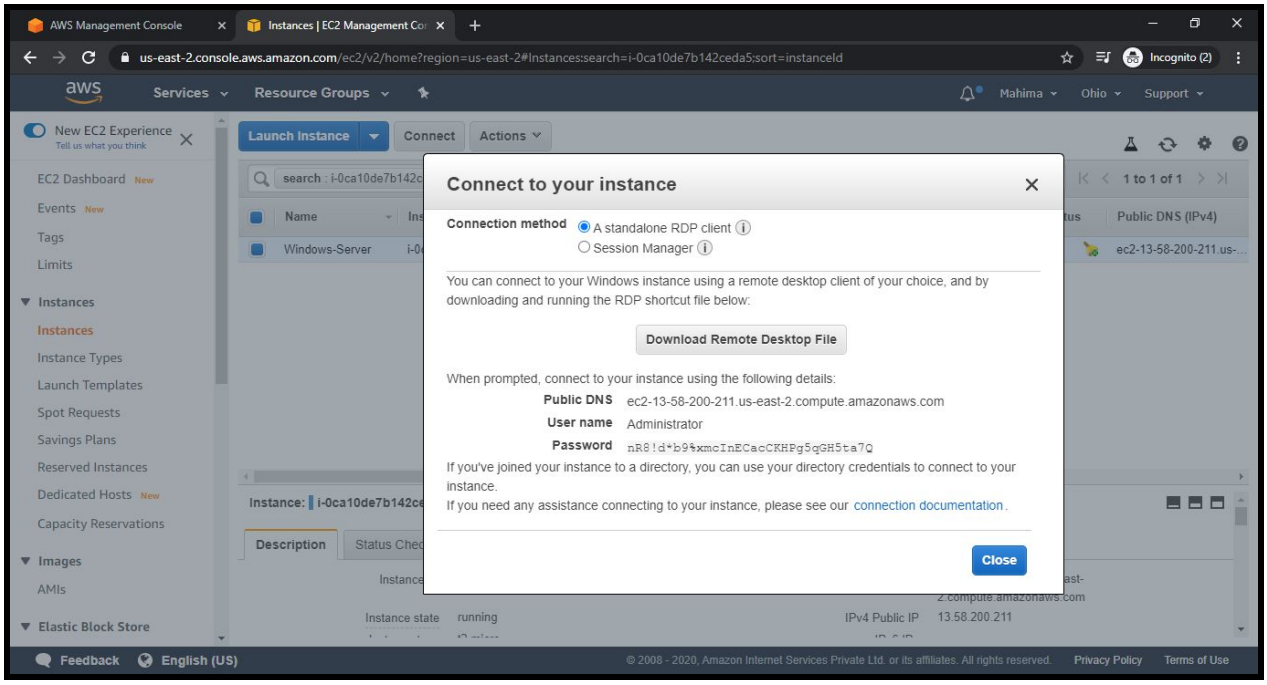
Step - 21:

For Key Pair Path, Choose a File i.e. “.pem file” which we downloaded while launching an instance. And then click on “Decrypt Password” for getting a password to connect to the Windows Server.



Step - 22:

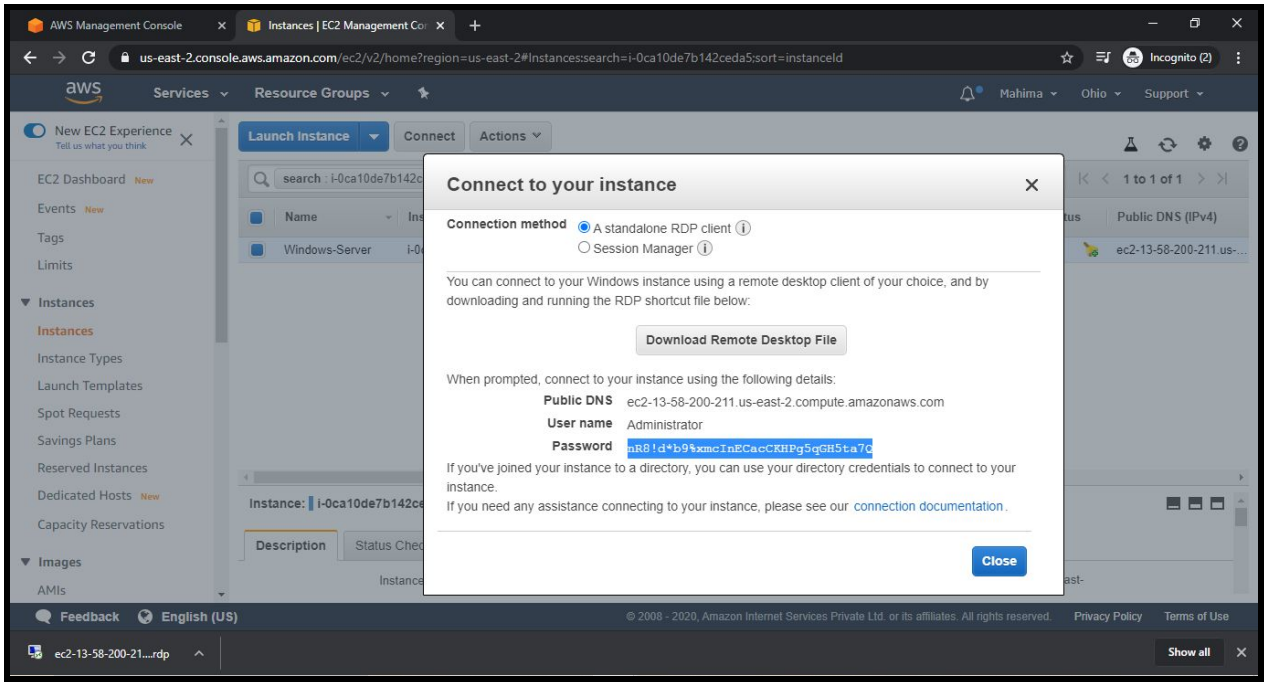
We’ll get a decrypted password on the popup for connecting to the Virtual Machine.



TASK - II: Launch the Windows Instance using RDP

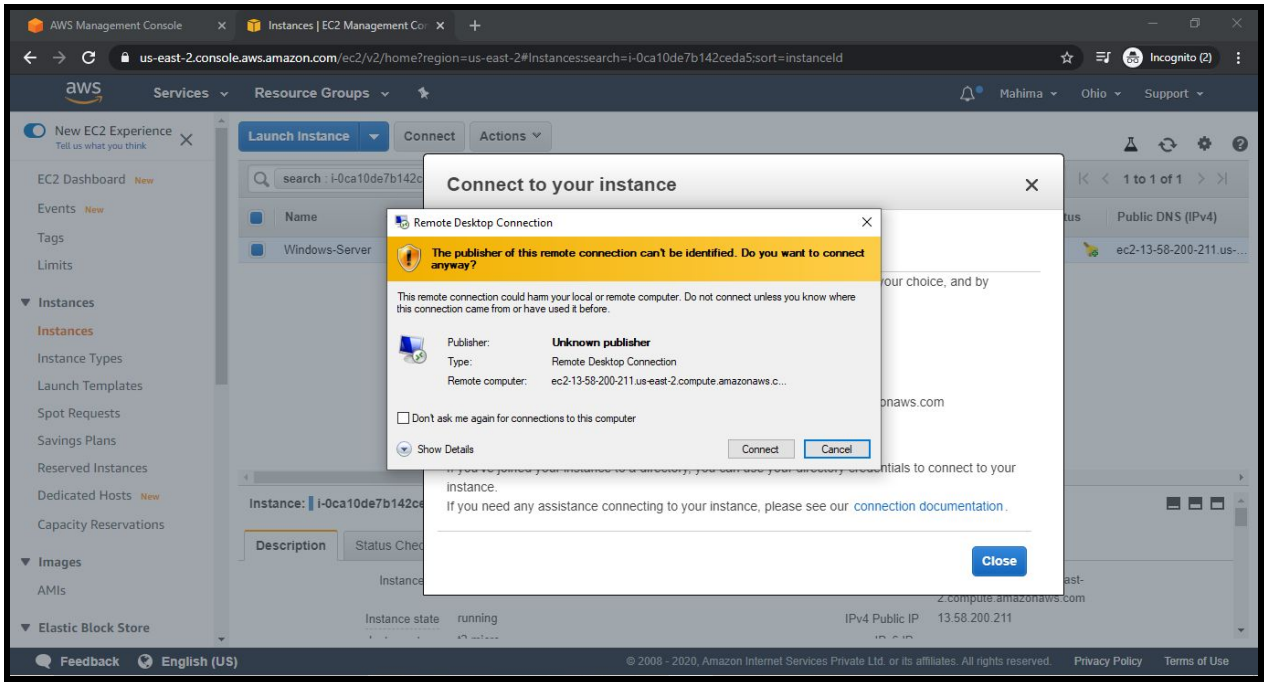
Step - 23:

Click on “Download Remote Desktop File” Button for accessing the Windows VM.



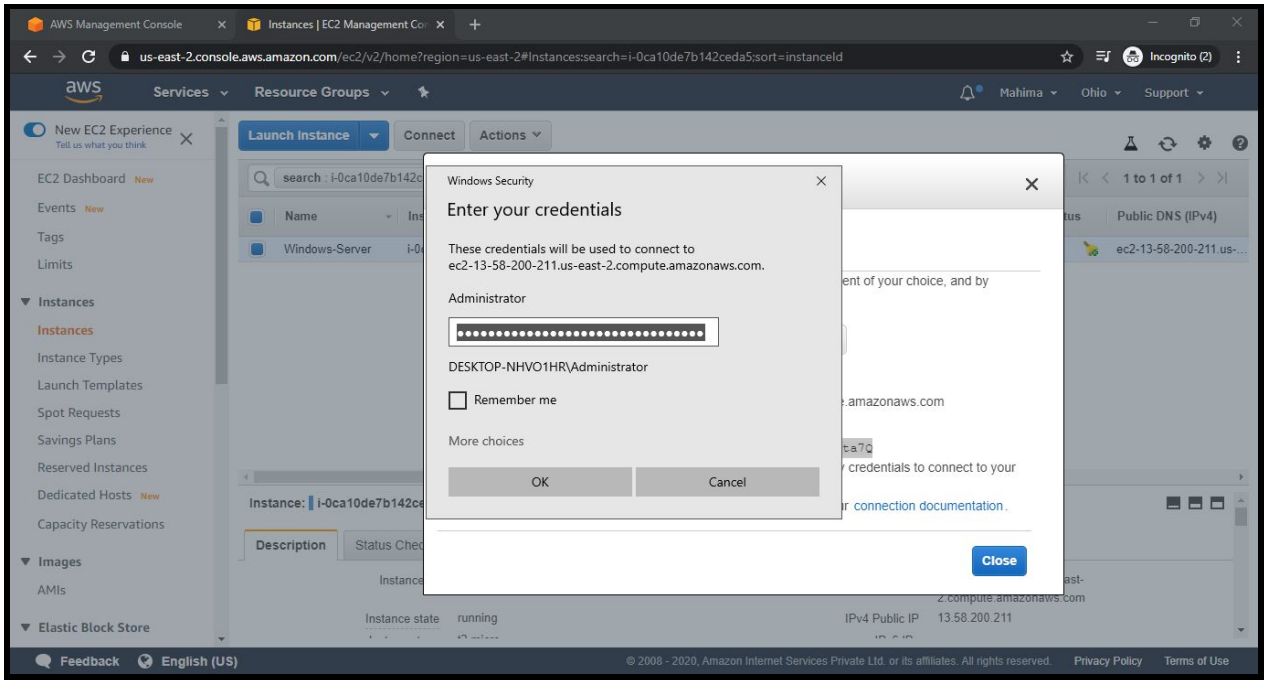
Step - 24:

On clicking the downloaded rdp file, you’ll be prompted with the shown popup and you can click the “Connect” button.



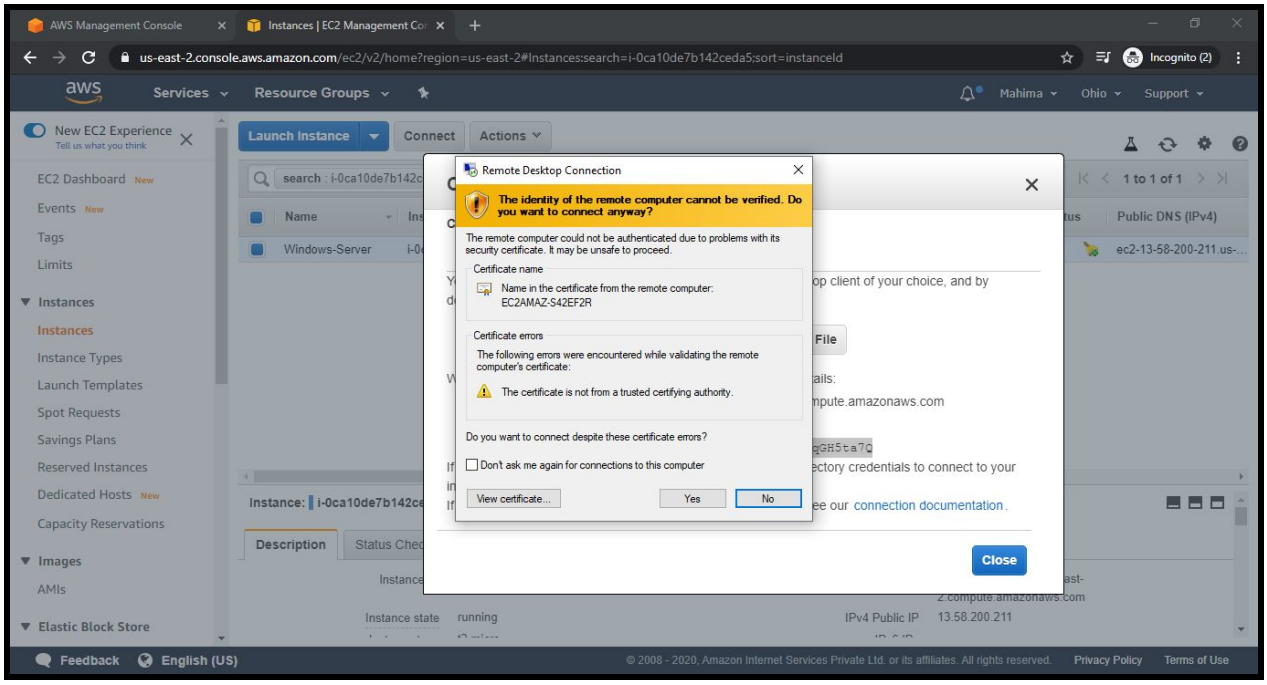
Step - 25:

Paste the decrypted password generated from the .pem file and click “OK” button to proceed further.



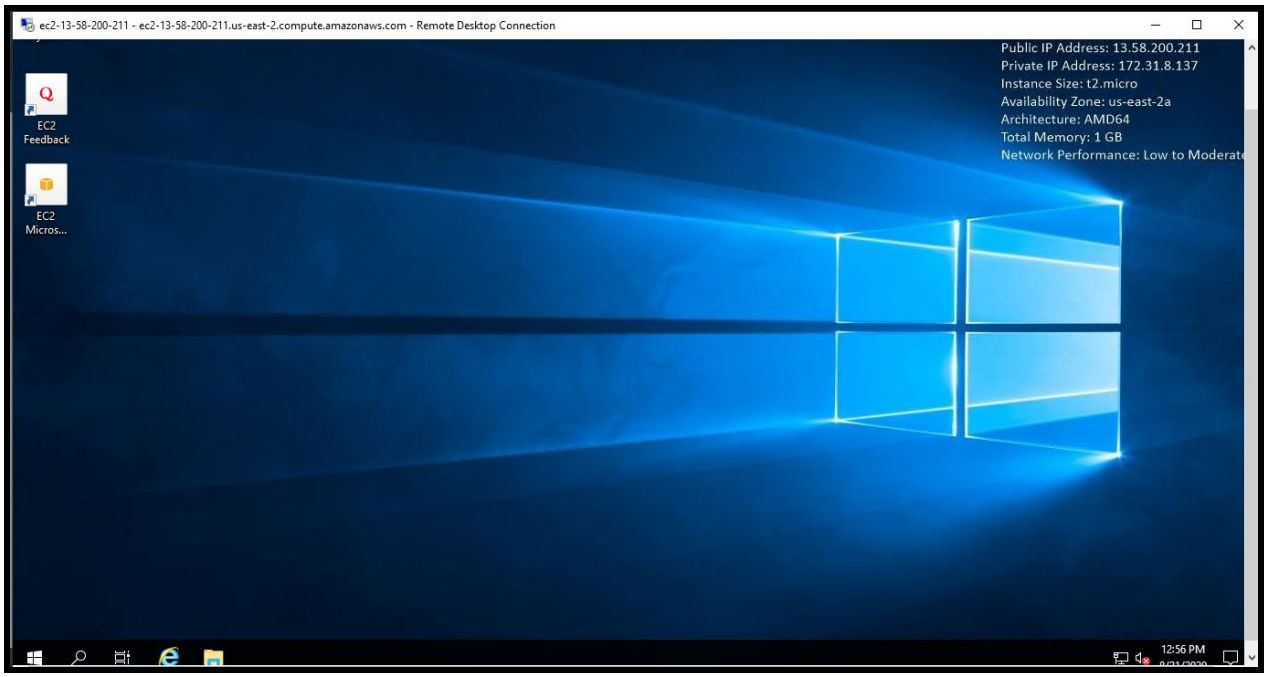
Step - 26:

A warning would be prompted, just click on “Yes” button and proceed further and you should be successfully connected to the Windows Server.



Step - 27:

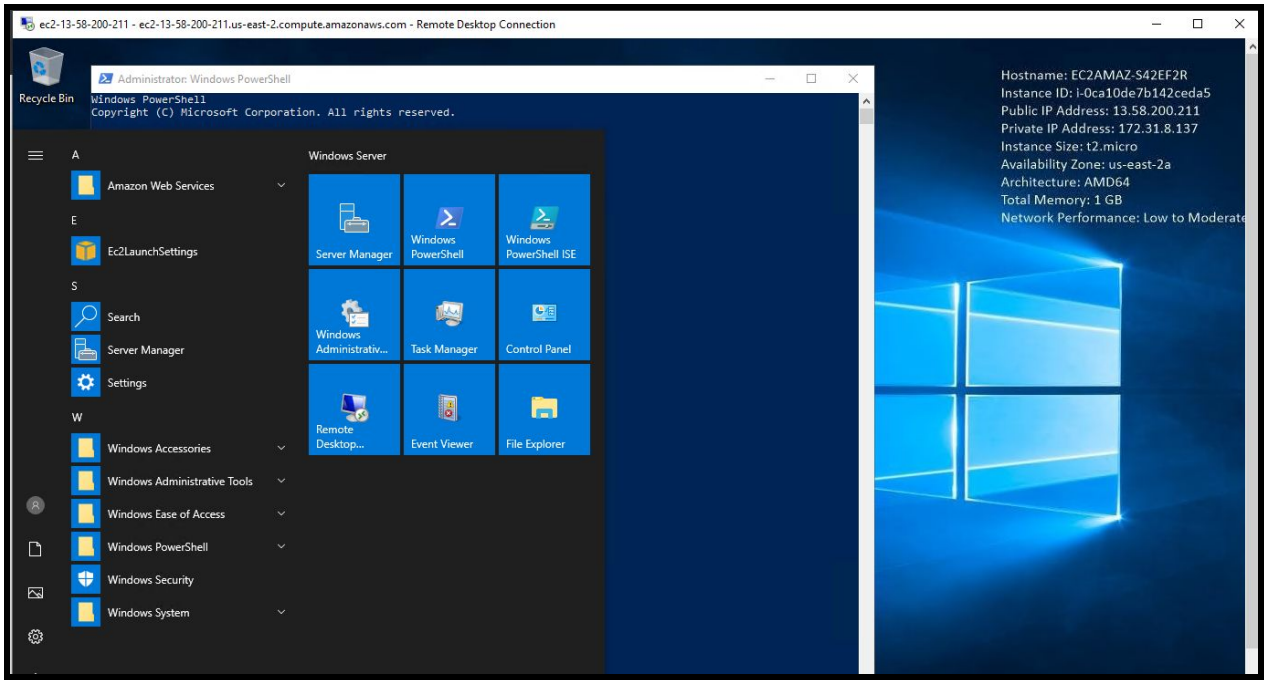
We are successfully able to connect to the Instance and at the top right corner all the respective details about the VM created would be displayed.



TASK - III: Install IIS Web Server using the Windows PowerShell

Step - 28:

Click on the start menu of the VM and open the Windows Powershell by right clicking and opening via “Run as Administrator”.

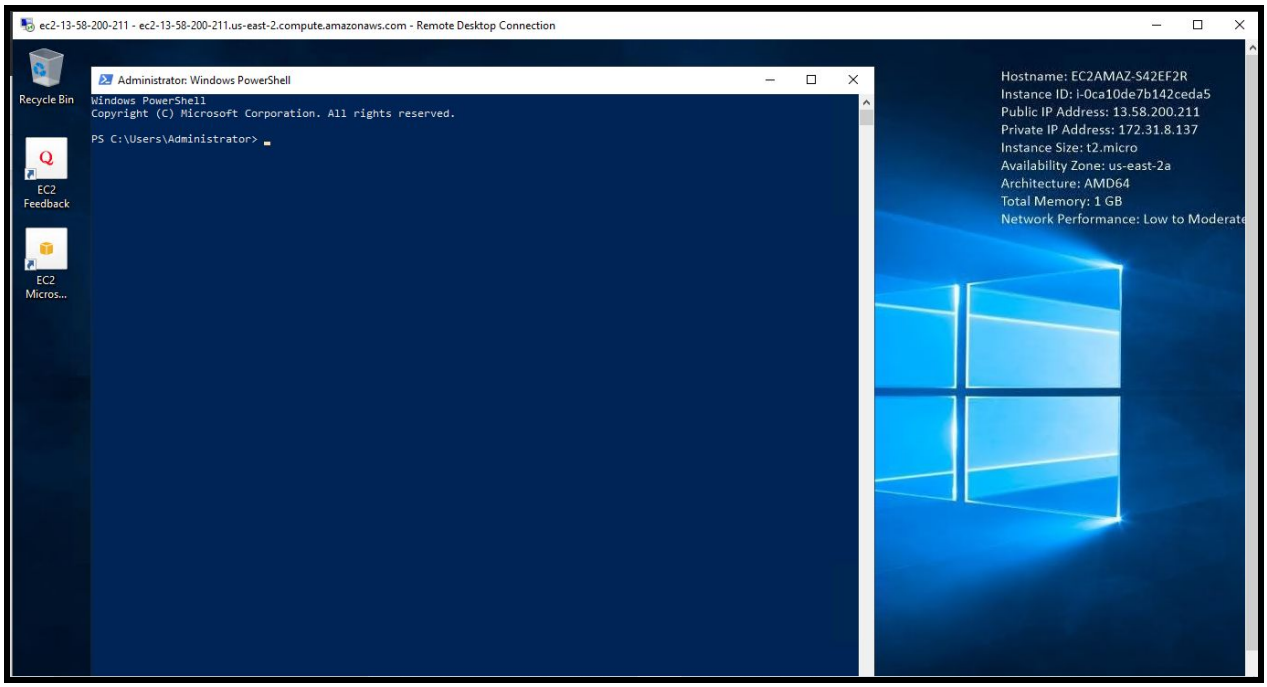


Step - 29:

“Administrator Windows PowerShell” screen would be prompted. Installing IIS Web Server using PowerShell and we can write the command:

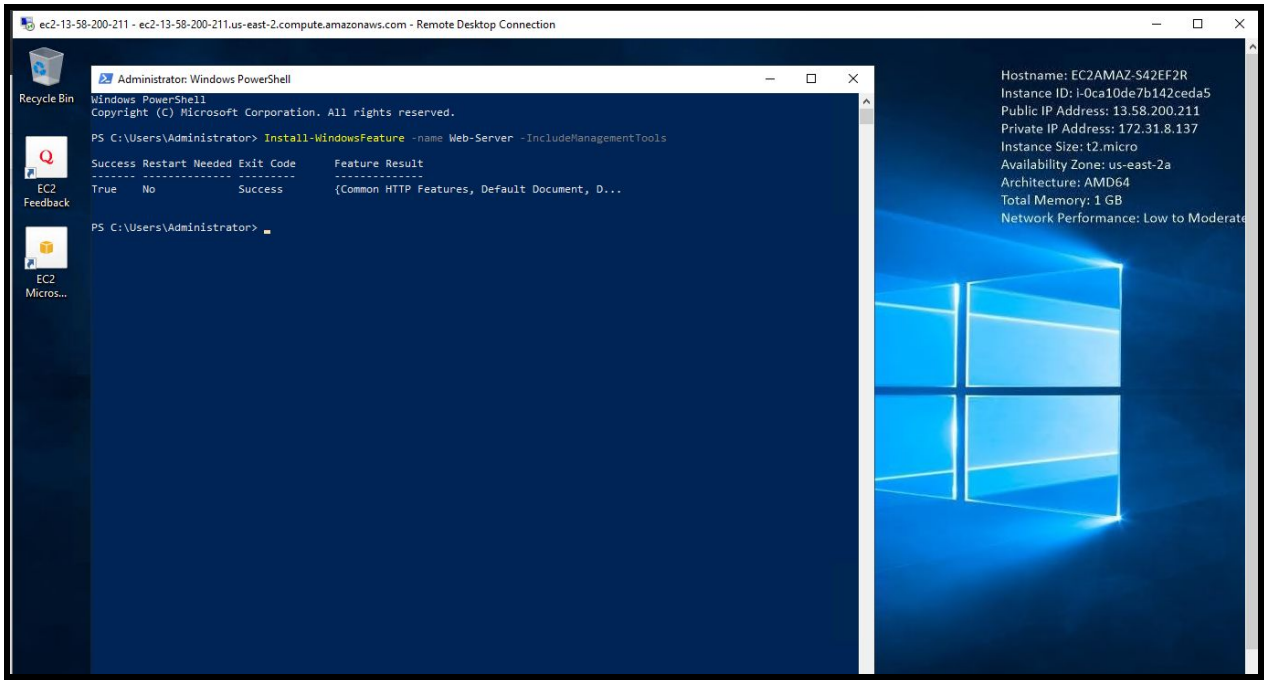
Install-WindowsFeature -name Web-Server -IncludeManagementTools

Windows PowerShell is case-sensitive.



Step - 30:

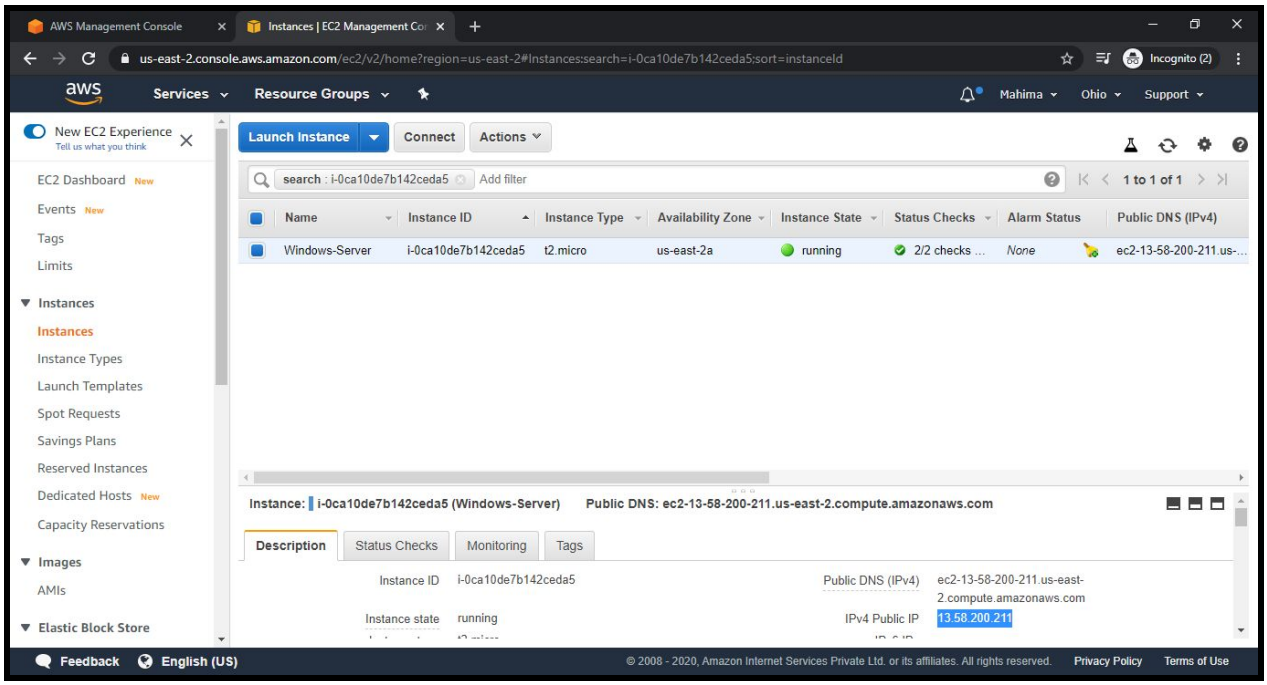
It’ll take around 2-3 minutes to install the web server, wait until the installation is completed. It’ll give us the Exit Code as “Success” once the installation is completed.



TASK - IV: Verify successful installation of IIS Web Server

Step - 31:

On successful installation of the IIS Web Server on Windows Machine, copy the IPv4 Public IP from the AWS Management Console for that particular Windows-Server and copy it.



Step - 32:

Open a new tab on the Browser and paste that VM's Public IP on the URL and we should be able to see the Internet Information Services (IIS) Webpage.