



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

Enterprise Standards and Best Practices for IT Infrastructure

4th Year 2nd Semester 2014

Lab Report

Lab 1 - Creating an Amazon EBS-Backed Windows AMI

Lab 2 - Creating an Amazon EBS-Backed Linux AMI

Name: Pinnawalage H.U

SLIIT ID: IT13055486

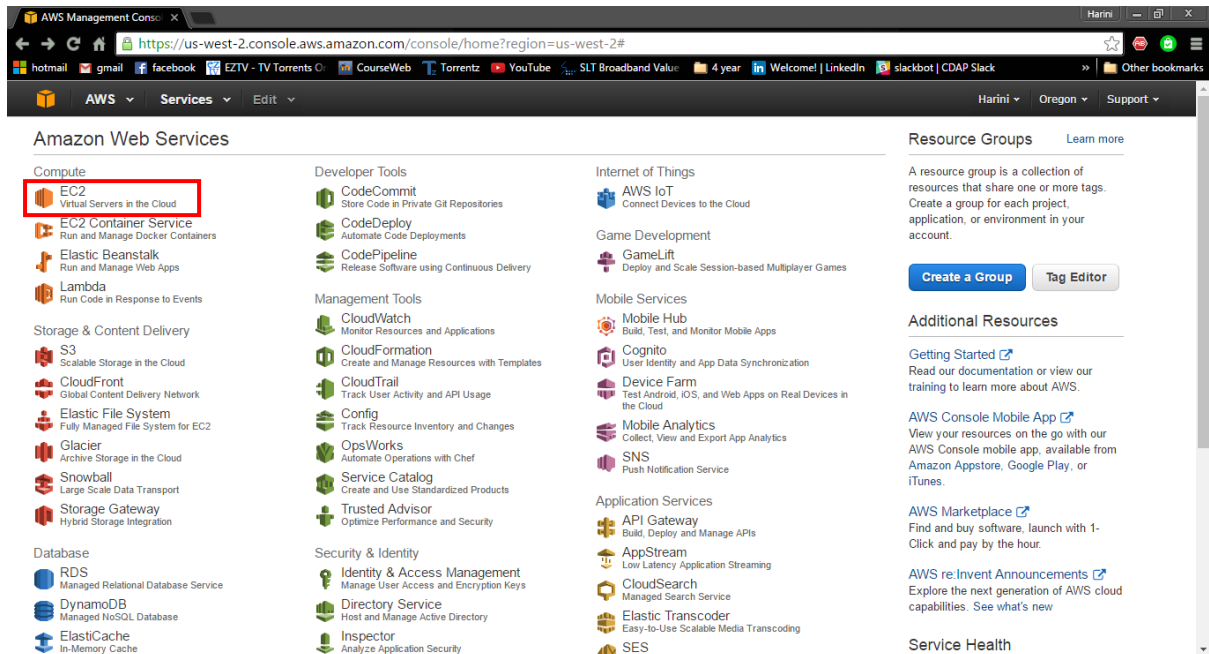
Practical Number: Lab 1 & 2

Date of Submission: 29/07/2016

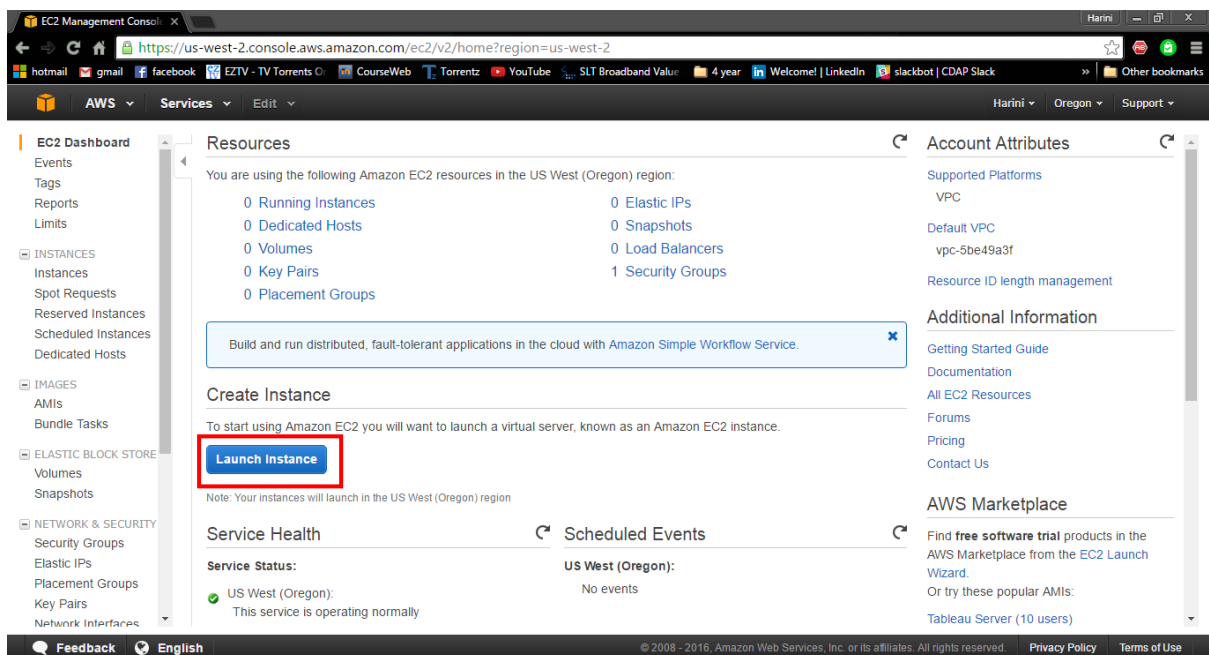
Lab 1 - Creating an Amazon EBS-Backed Windows AMI

1. Launch an Instance

Step 1: Go to Amazon Web Services and select **EC2**. (Services -> EC2)

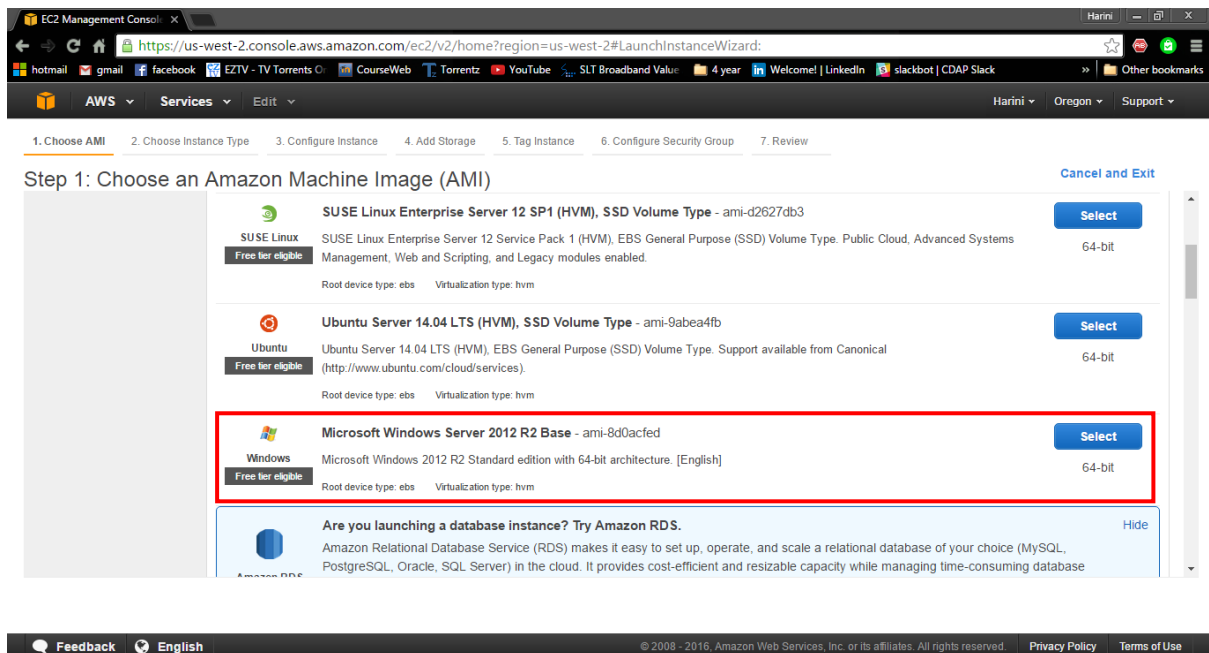


Step 2: Select **Launch Instance** under Create Instance from the console dashboard.



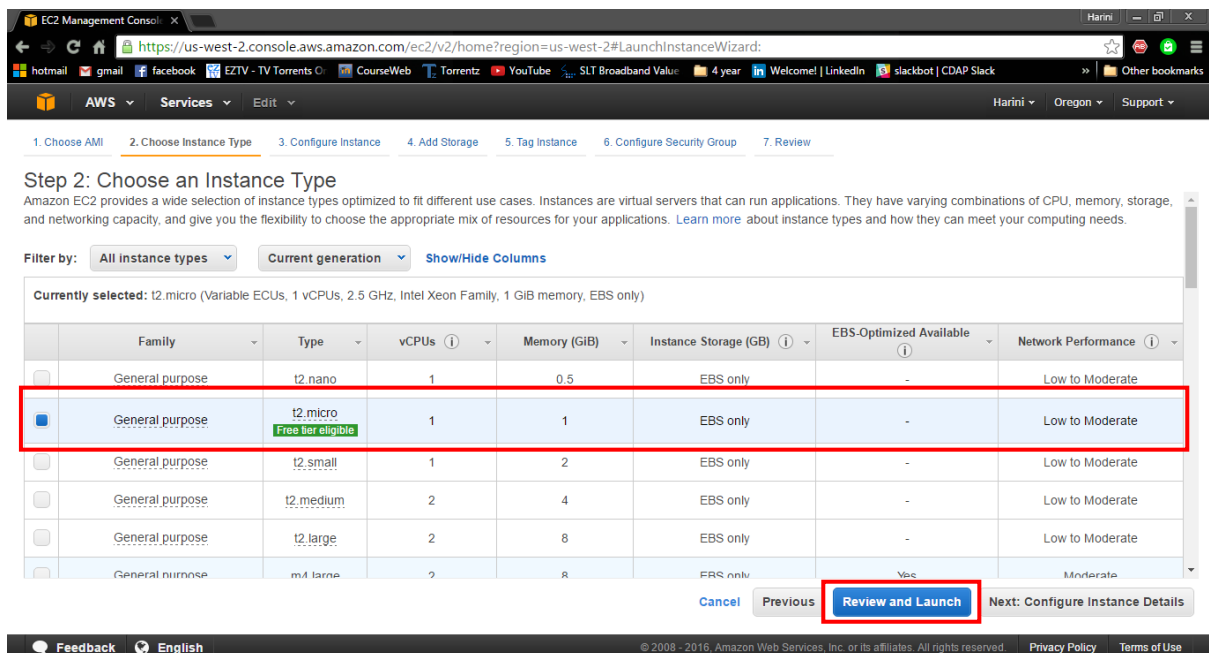
Step 3: Choose an Amazon Machine Image (AMI)

Select **Microsoft Windows Server 2012 R2 Base** (free tier eligible).



Step 4: Choose an Instance Type

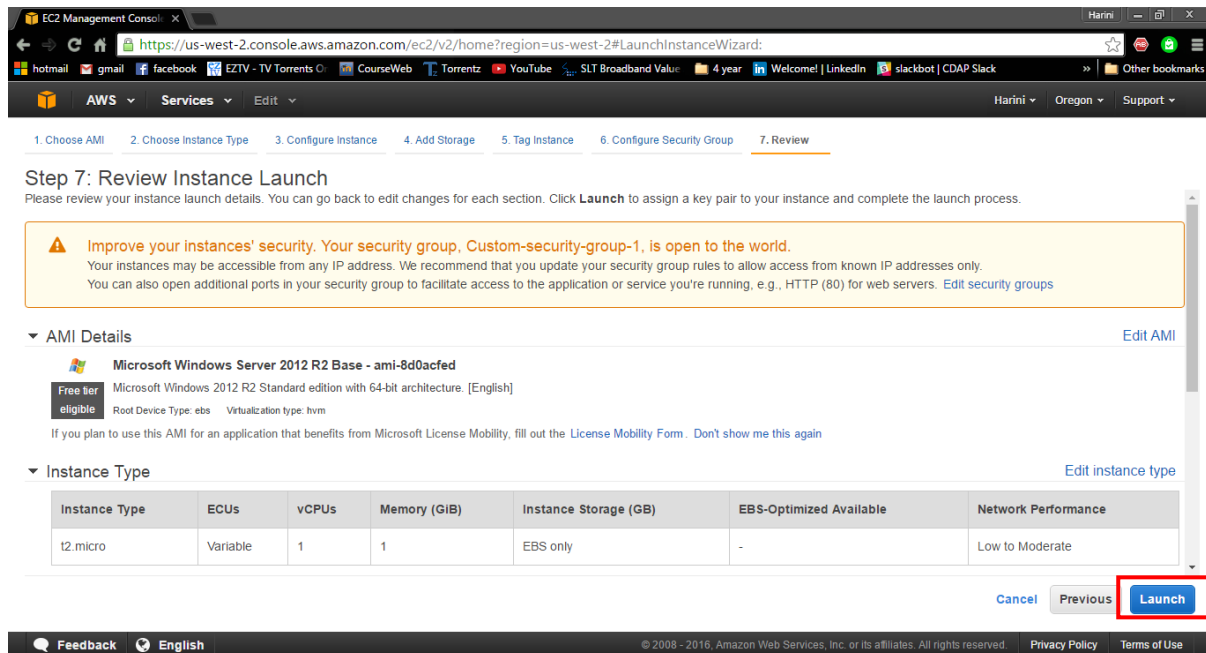
Select the **t2.micro** type which is selected by default. This instance type is eligible for the free tier.



Choose **Review and Launch** to let the wizard complete the other configuration settings for you.

Step 5: Review Instance Launch.

Select **Launch.**



Under Security Groups, the wizard created and selected a security group for you.

Free tier eligible type can get only 30GB for free. Increasing storage size may bill you according to the size.

Step 6: Select an existing key pair or create a new key pair

Choose **Create a new key pair** to download a new key pair.

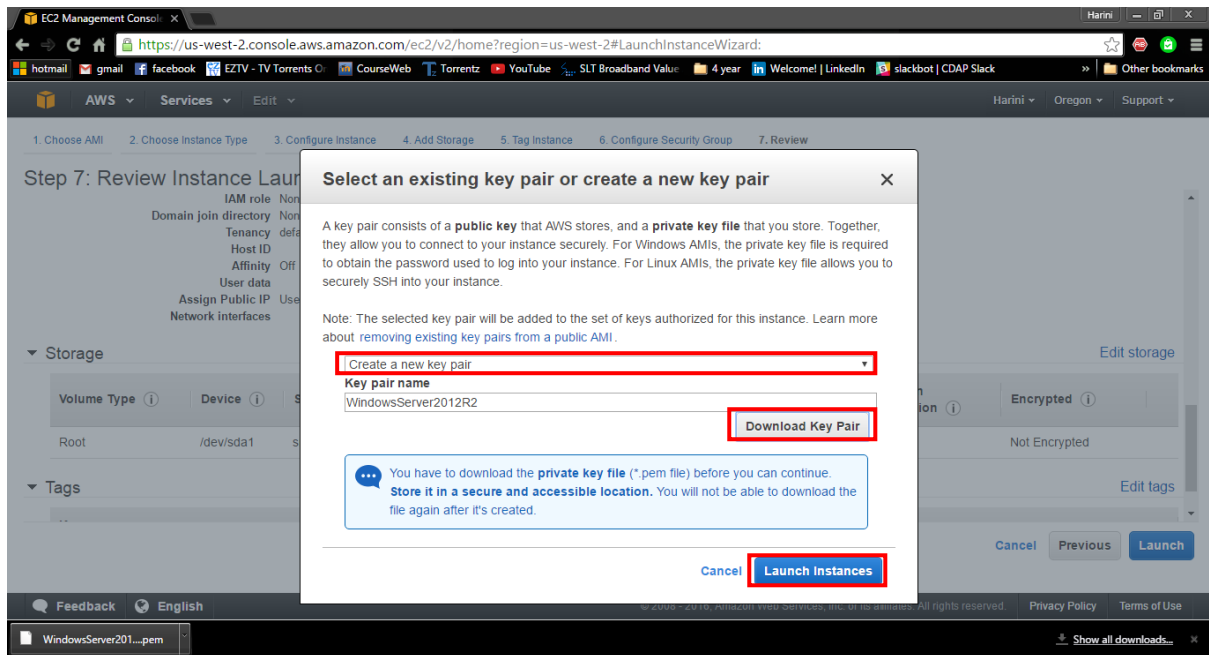
Enter a name for the key pair.

Then choose **Download Key Pair**.

This is the only place to save the private key file, so make sure to download it in a secure place. Name of the key pair is needed when launching an instance and the corresponding private key each time connecting to the instance.

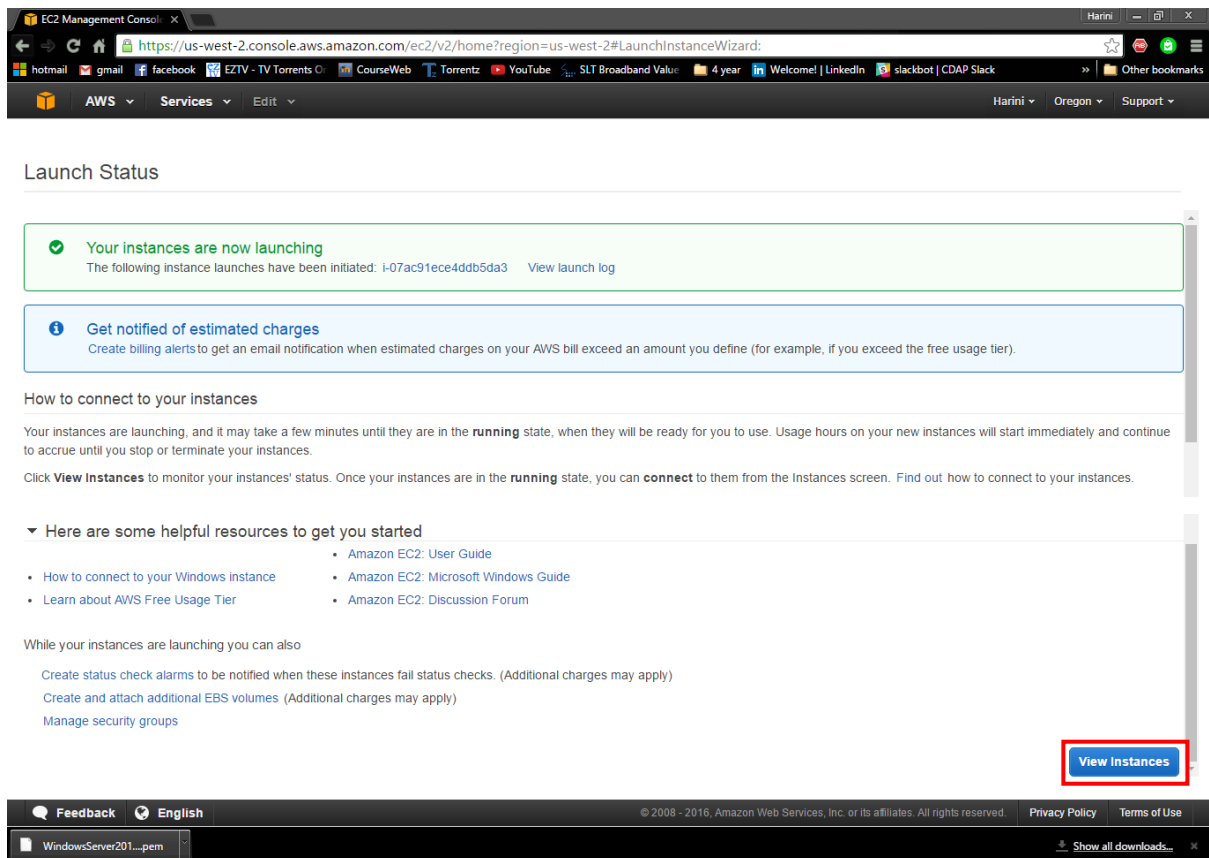
Select **Choose an existing key pair** and the key pair, if you have created a key pair before when getting set up.

Then select **Launch Instances**.



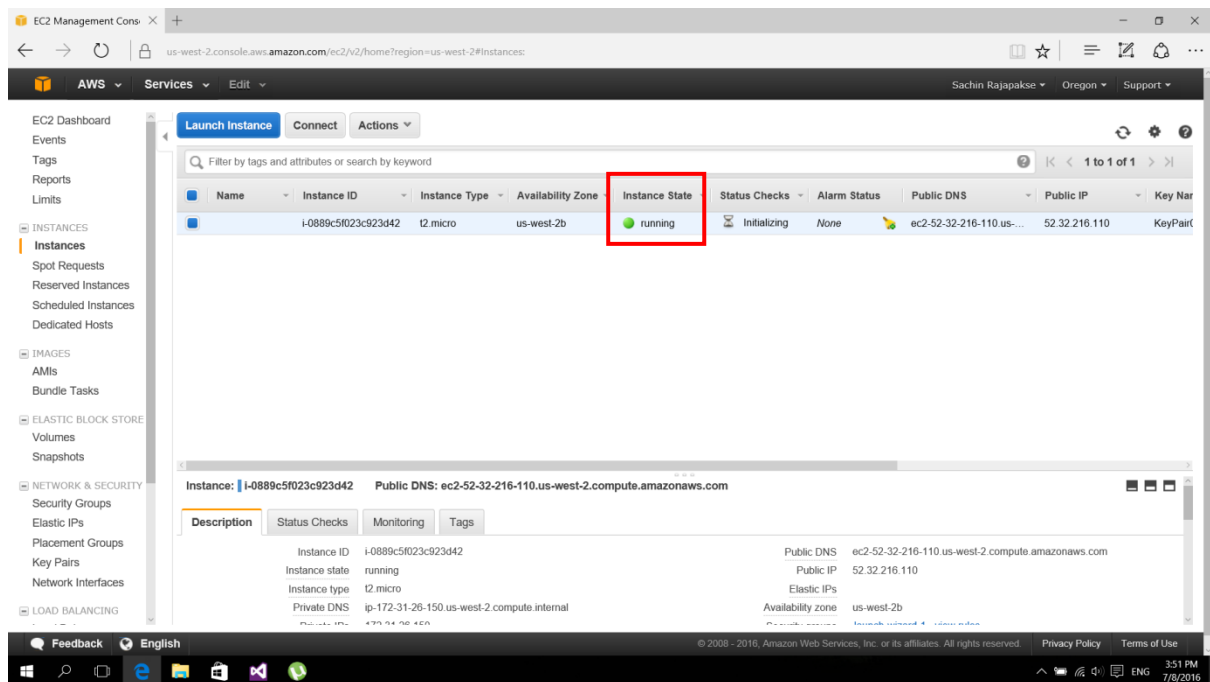
Step 7: Launch Status

Choose **View Instances** after launching.



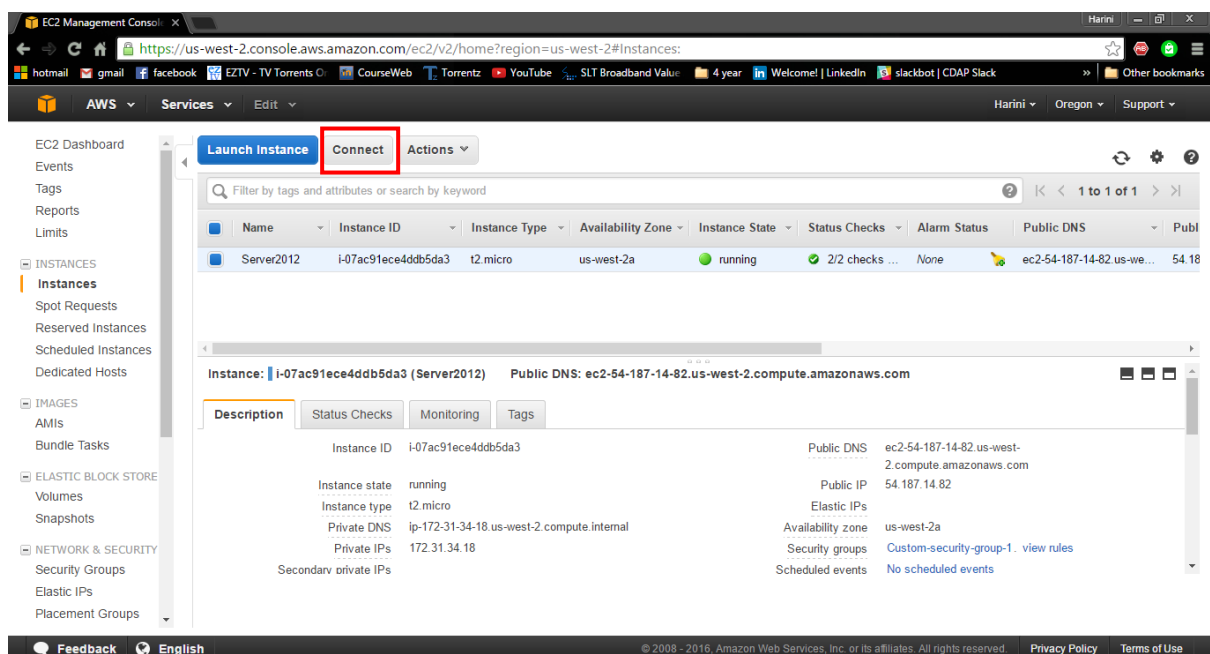
Step 8: View the status of the instance on the Instances windows.

It takes time for an instance to launch. When launching an instance, the initial state is **pending**. After the instance starts, the state changes to **running**.

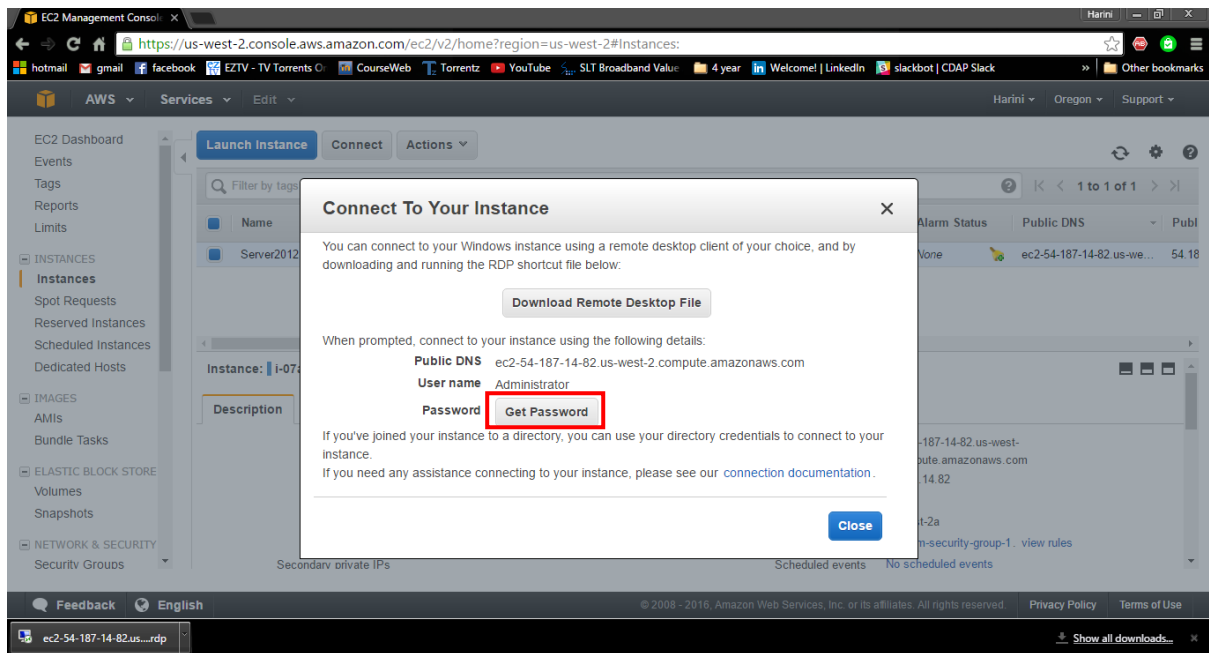


2. Connect to the Instance

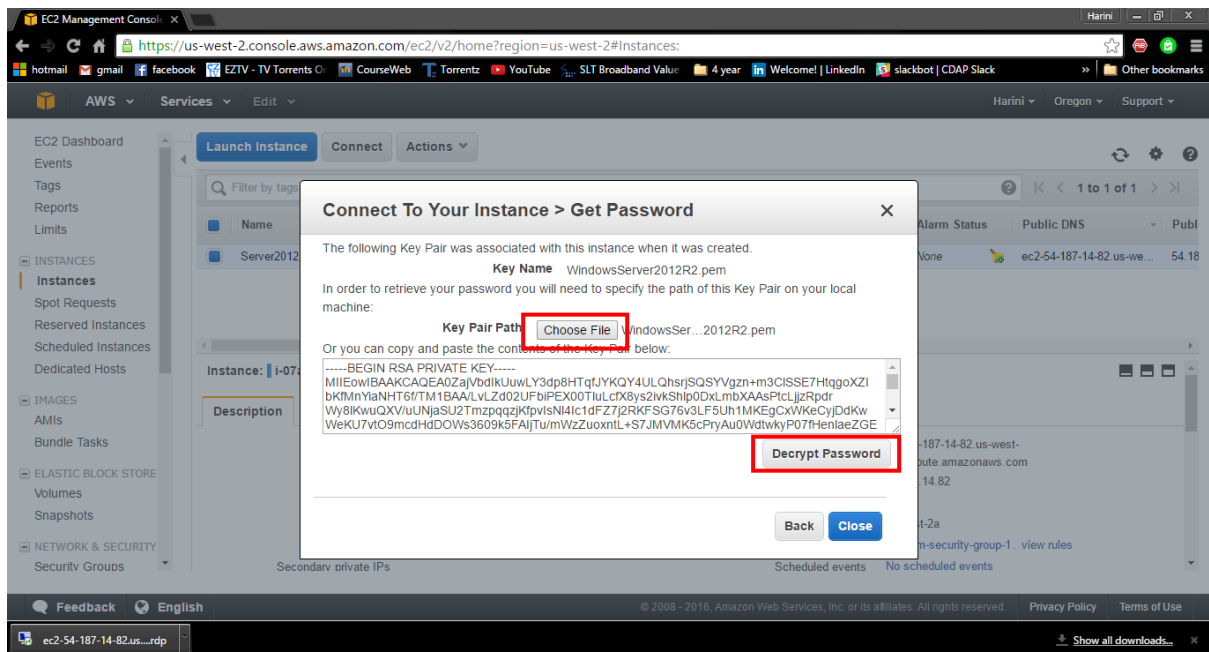
Step 1: Select the created instance and then select **Connect**.



Step 2: In the **Connect To Your Instance** dialog box, choose **Get Password**.

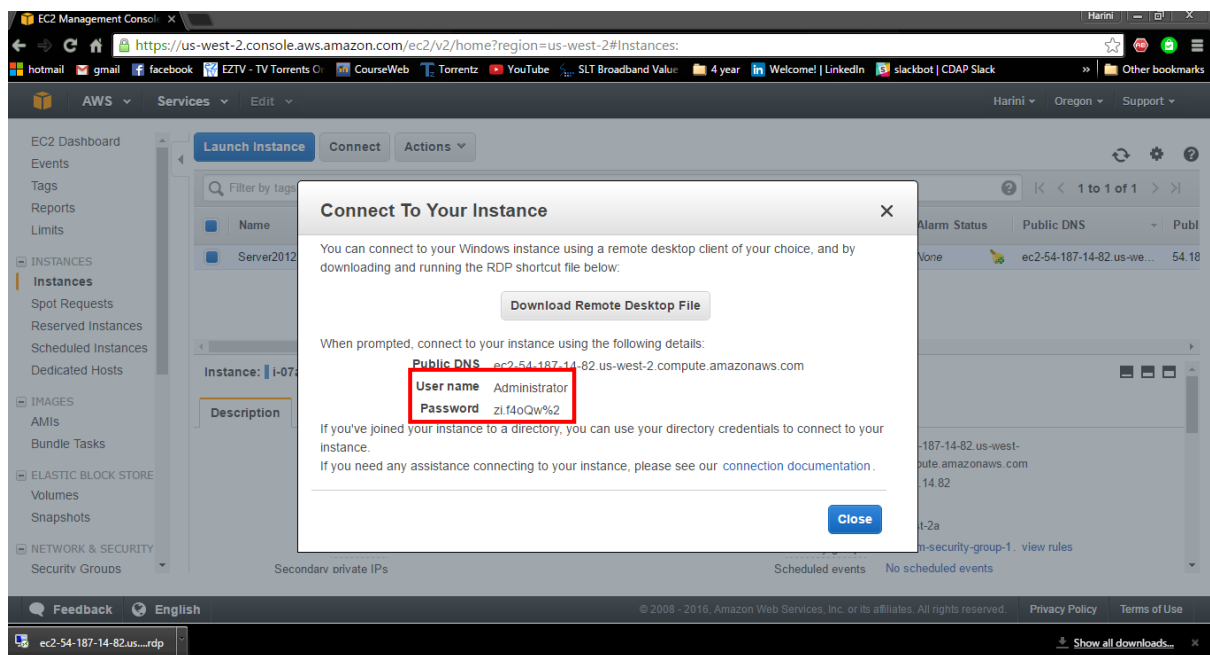


Step 3: Select **Choose File** to go to the private key file created when launching the instance. Select the file and choose **Open** to copy the entire contents of the file into contents box.



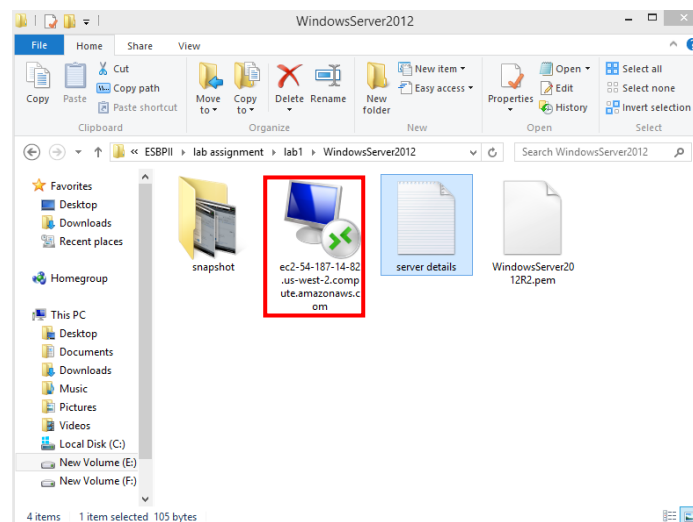
Select **Decrypt Password**. It displays the password for the instance in the **Connect To Your Instance** dialog box.

Note down the username and password. You need these details to connect to the instance.

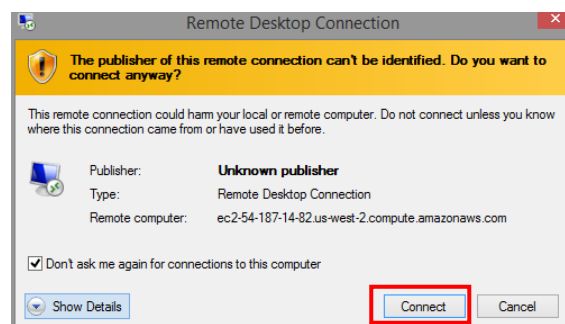


Step 4: Connecting through Remote Desktop Connection.

1. If you opened the **.rdp file**, you'll see the Remote Desktop Connection dialog box.



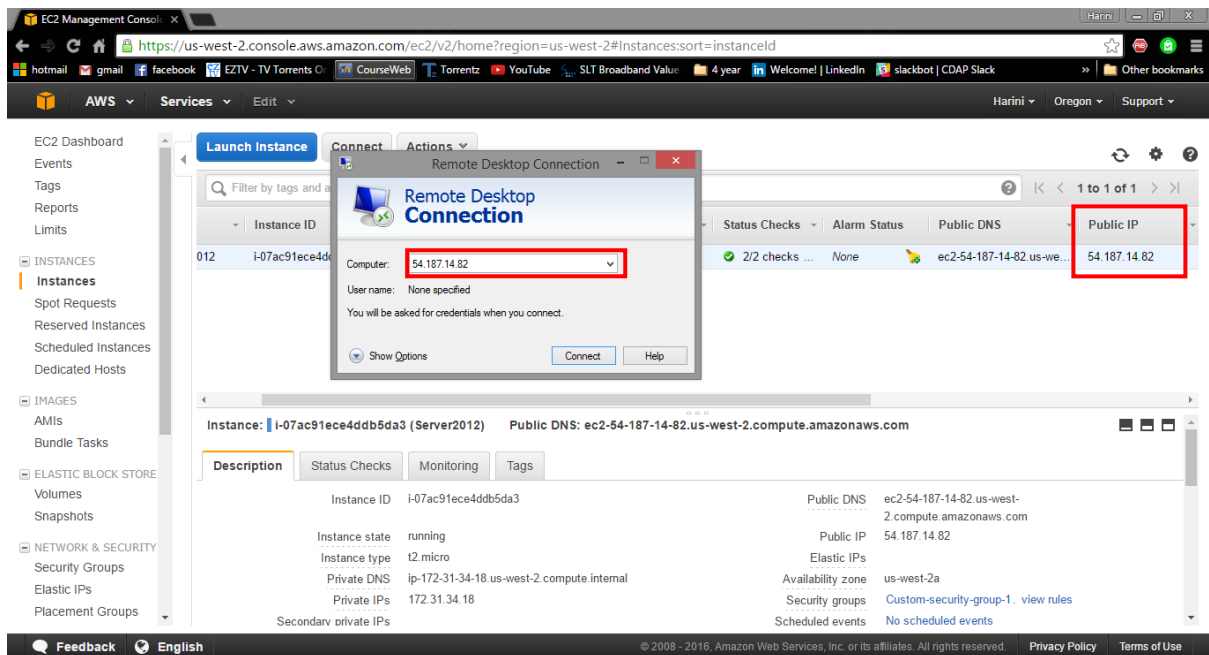
You may get a warning that the publisher of the remote connection is unknown. Select Connect to connect to your instance.



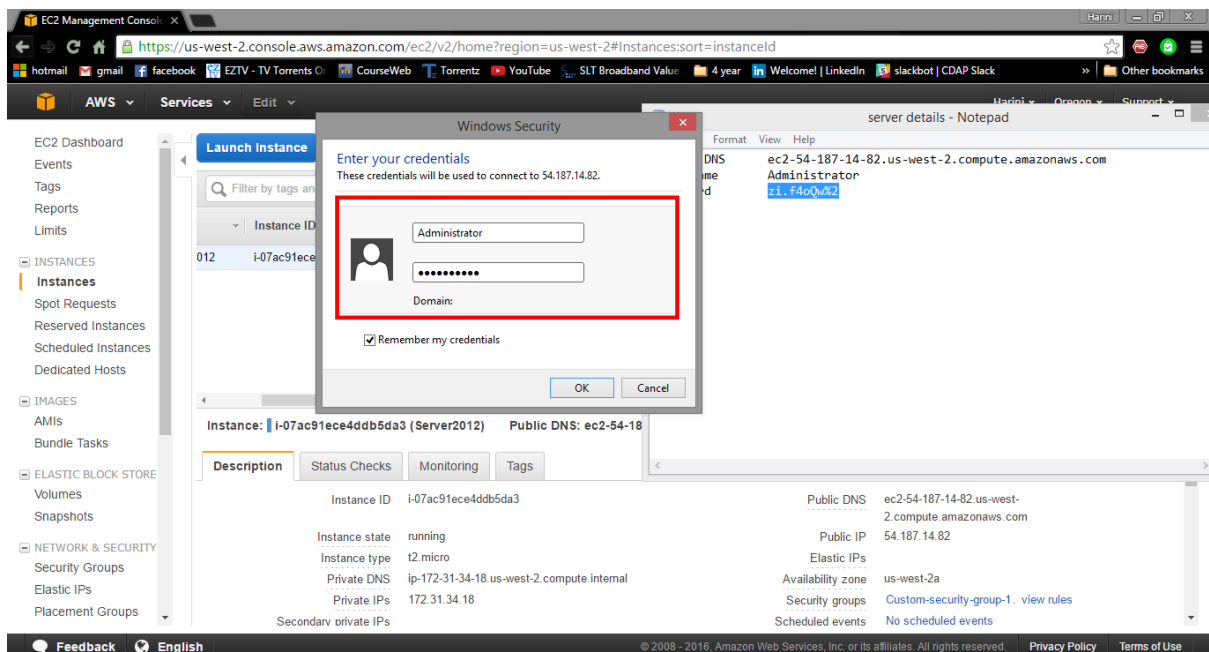
2.Else open **Remote Desktop Connection**.

Provide the public IP of the launched instance.

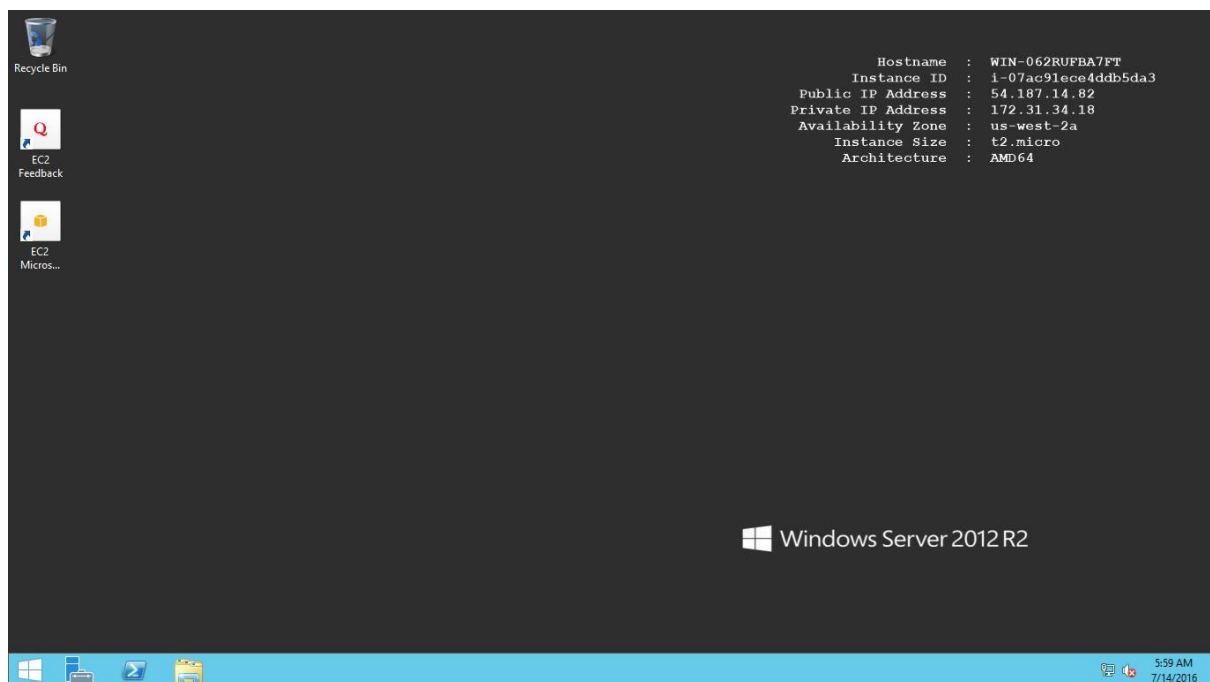
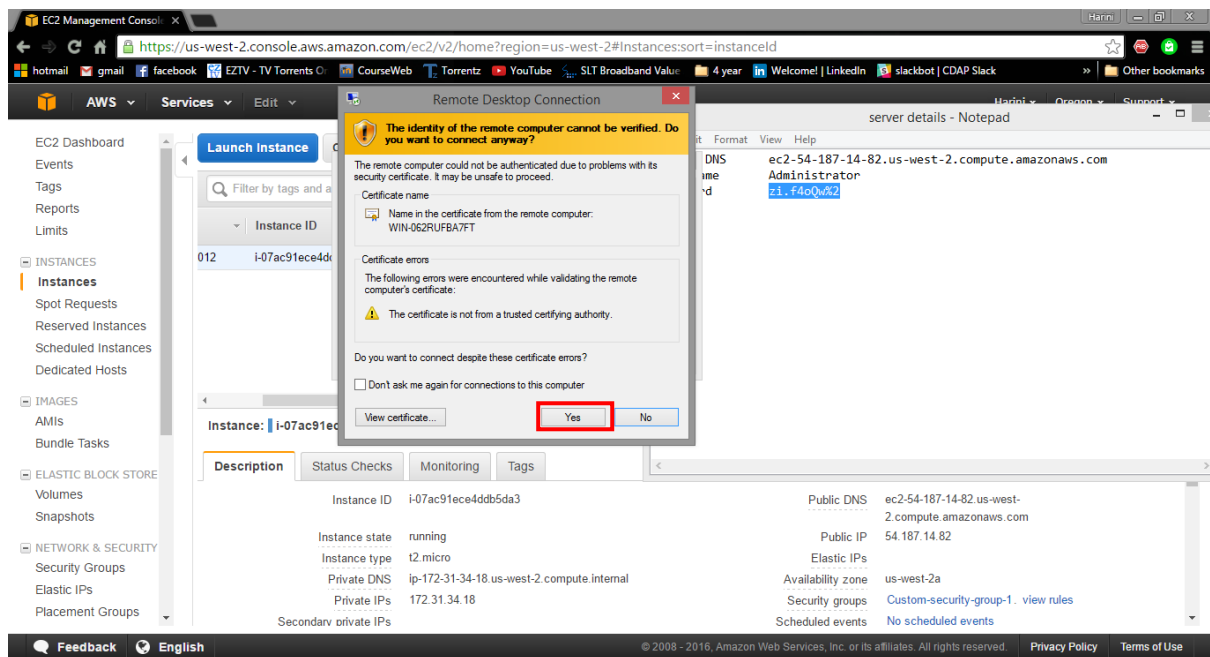
Connect to the created instance.



Step 5: Log in to Windows Server 2012 R2 using the given user name and the decrypted password.



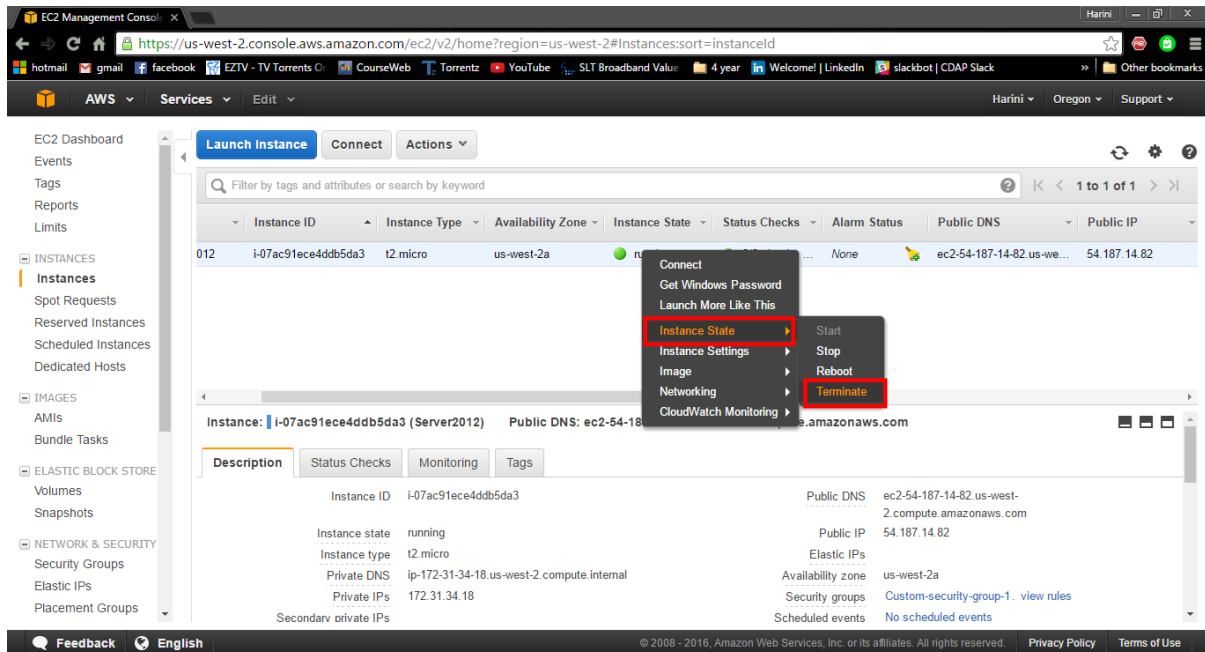
Step 6: Due to the self-signed certificates, it may get a warning that the security certificate could not be authenticated. Choose **Yes** to continue if you trust the certificate.



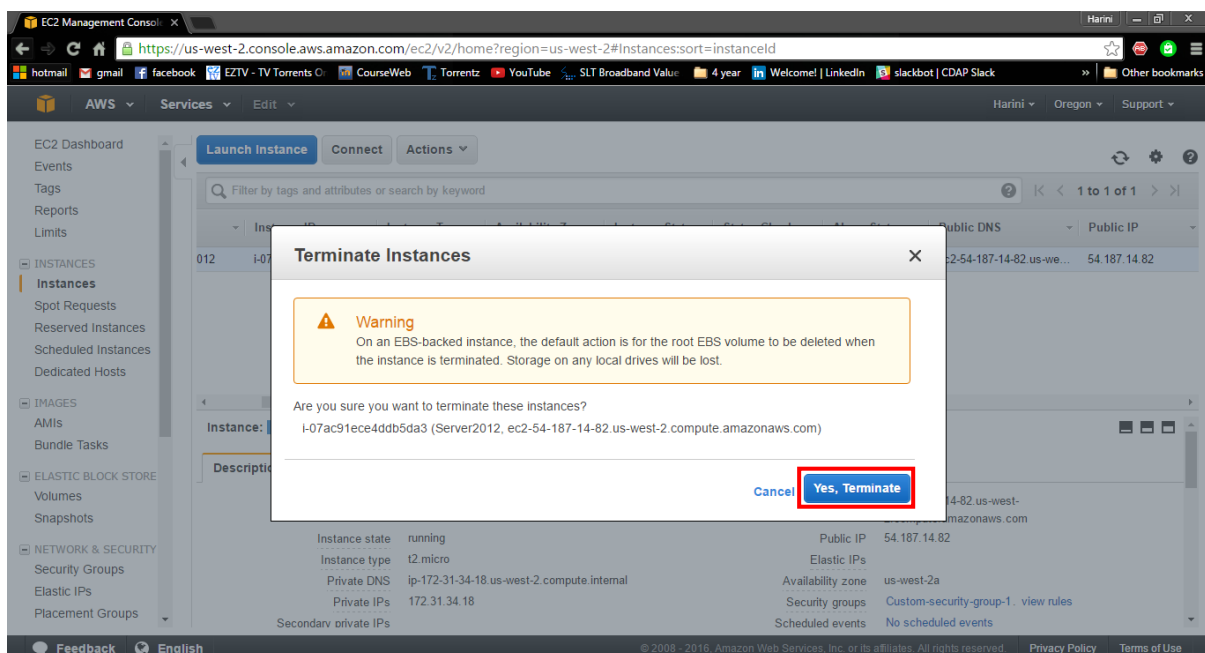
3. Clean Up the Instance

Step 1: Right click on the created server instance and select **Terminate** from the **Instance State**.

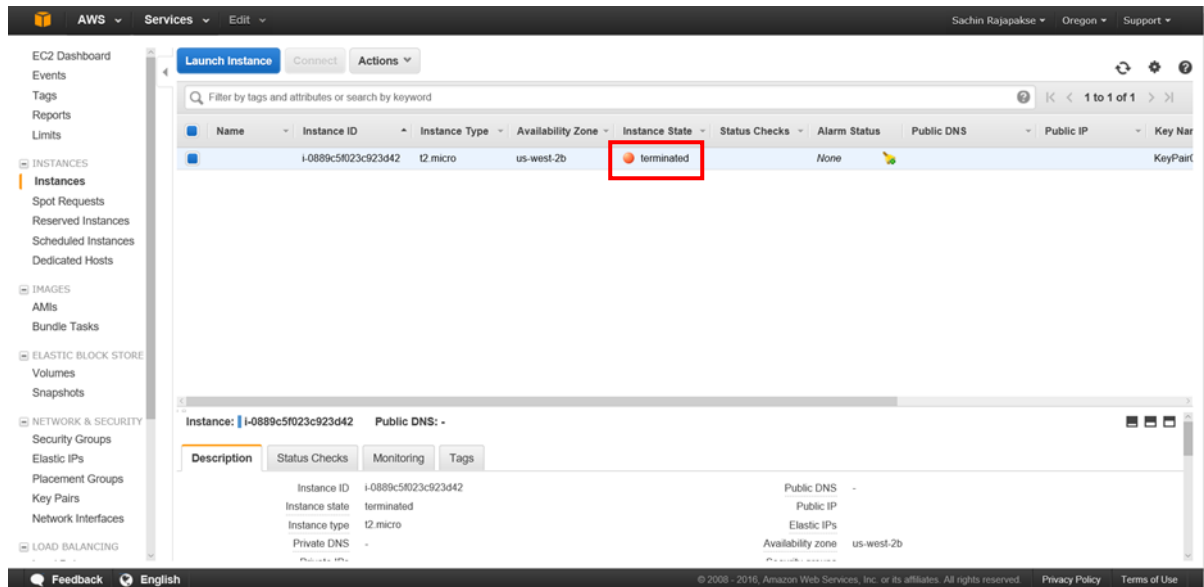
Else select **Actions**, then **Instance State**, and then choose **Terminate**.



Step 2: Select **Yes, Terminate** when prompted for confirmation.



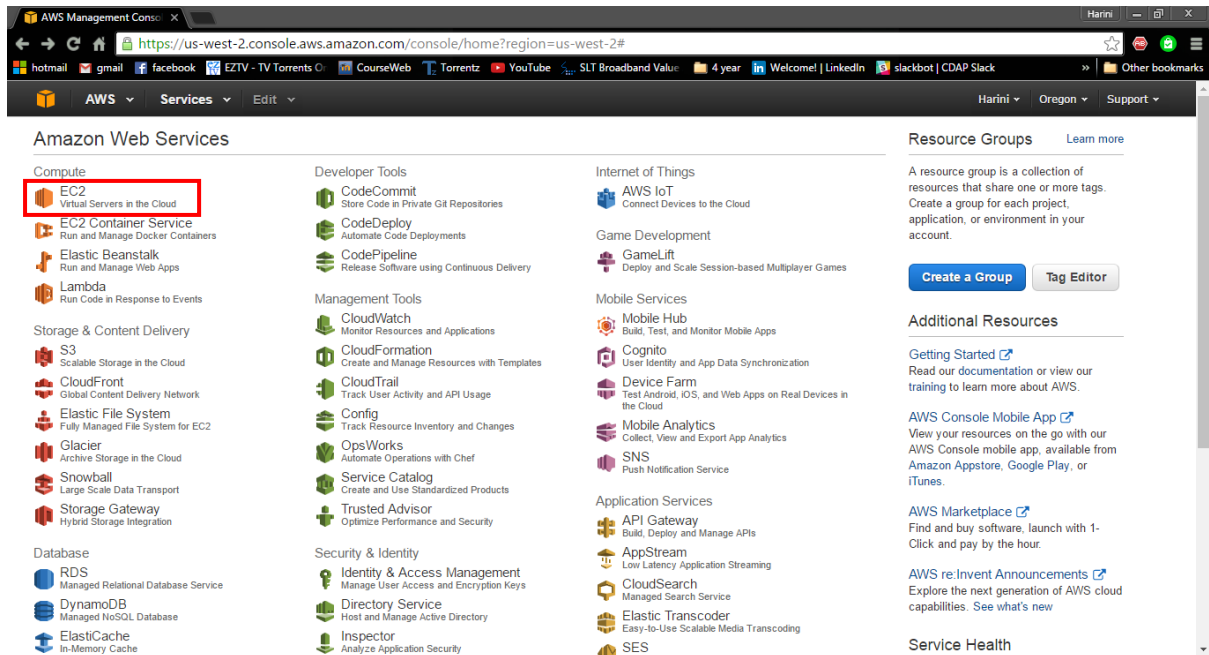
Amazon EC2 shuts down and terminates the instance. After the instance is terminated, it remains visible on the console for a short while, and then the entry is deleted.



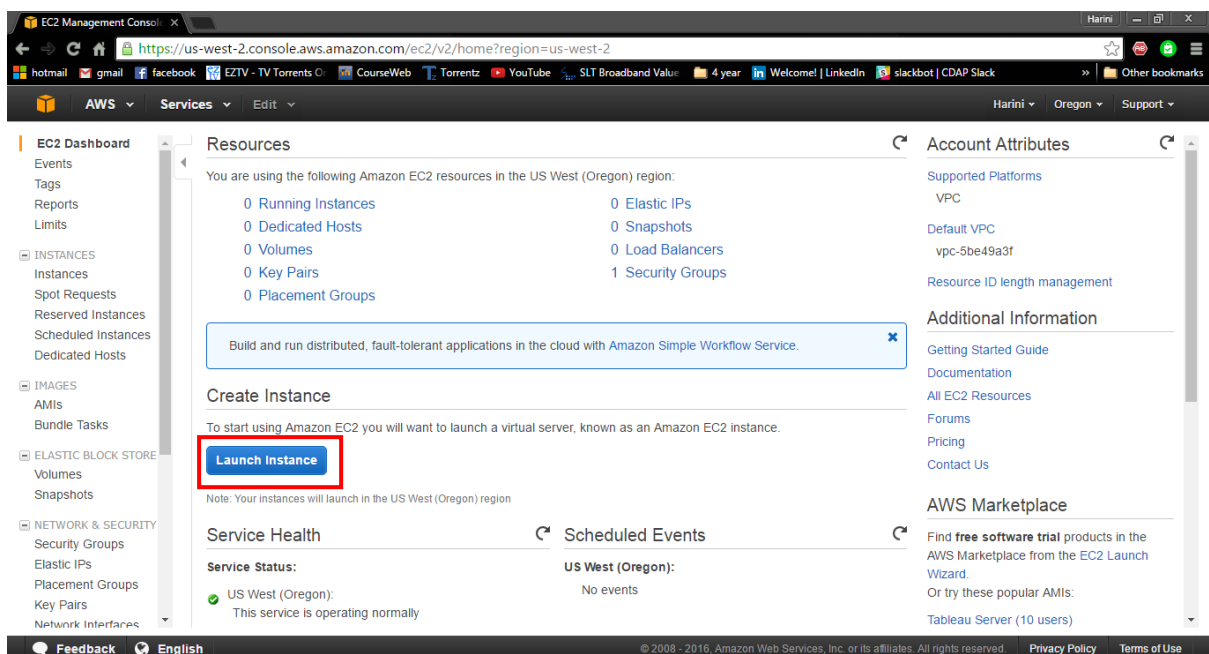
Lab 2 - Creating an Amazon EBS-Backed Linux AMI

1. Launch an Instance

Step 1: Go to Amazon Web Services and select **EC2**. (Services -> EC2)

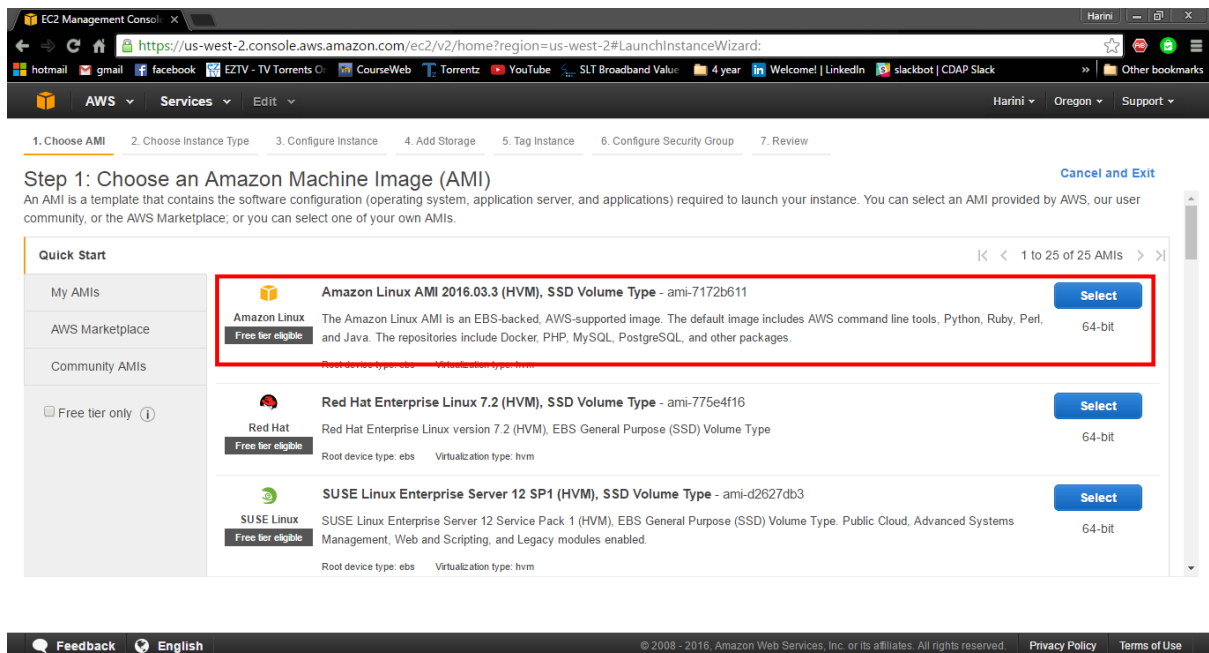


Step 2: Select **Launch Instance** under Create Instance from the console dashboard.



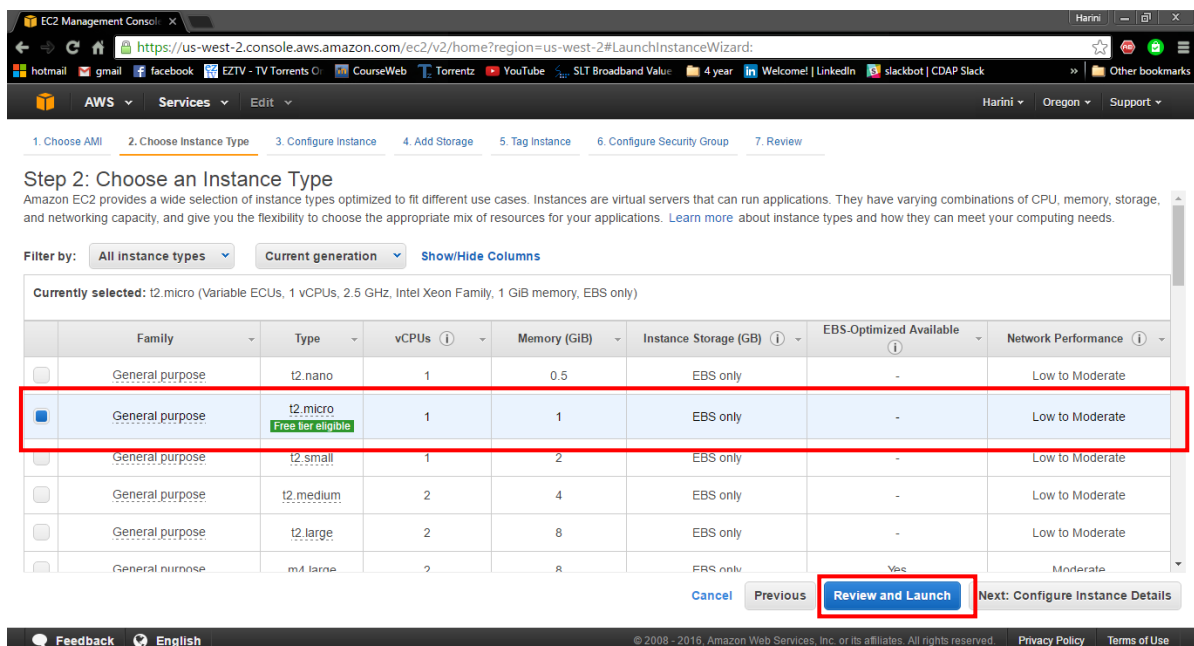
Step 3: Choose an Amazon Machine Image (AMI)

Select **Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type** (free tier eligible).



Step 4: Choose an Instance Type

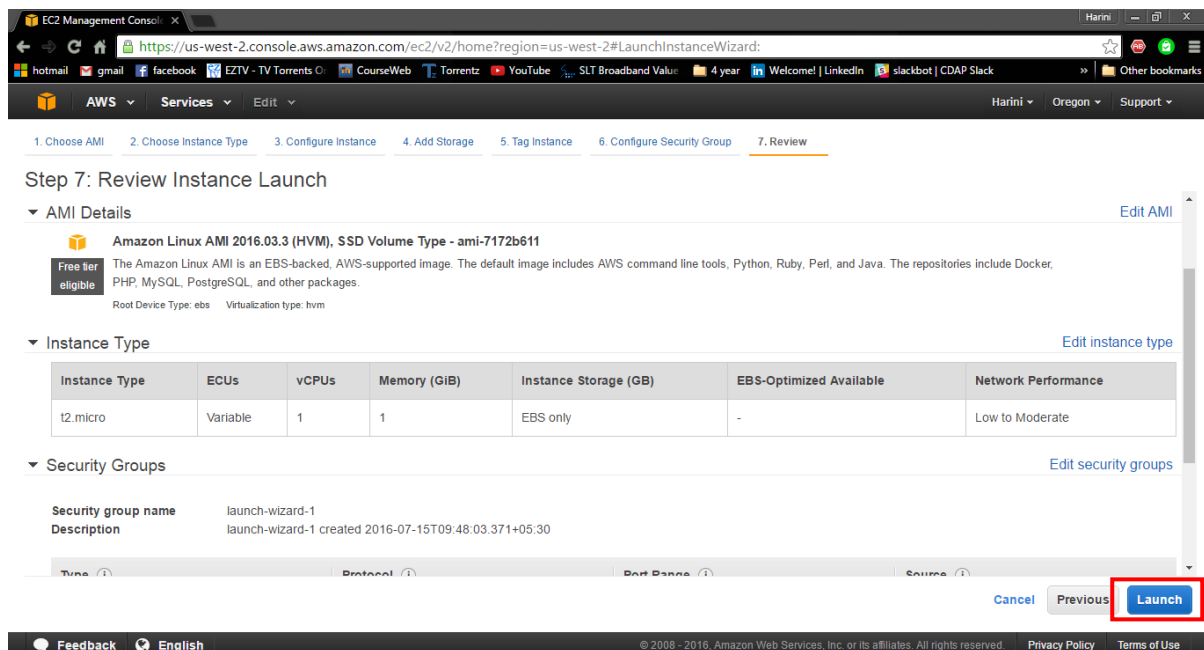
Select the **t2.micro** type which is selected by default. This instance type is eligible for the free tier.



Choose **Review and Launch** to let the wizard complete the other configuration settings for you.

Step 5: Review Instance Launch.

Select **Launch.**

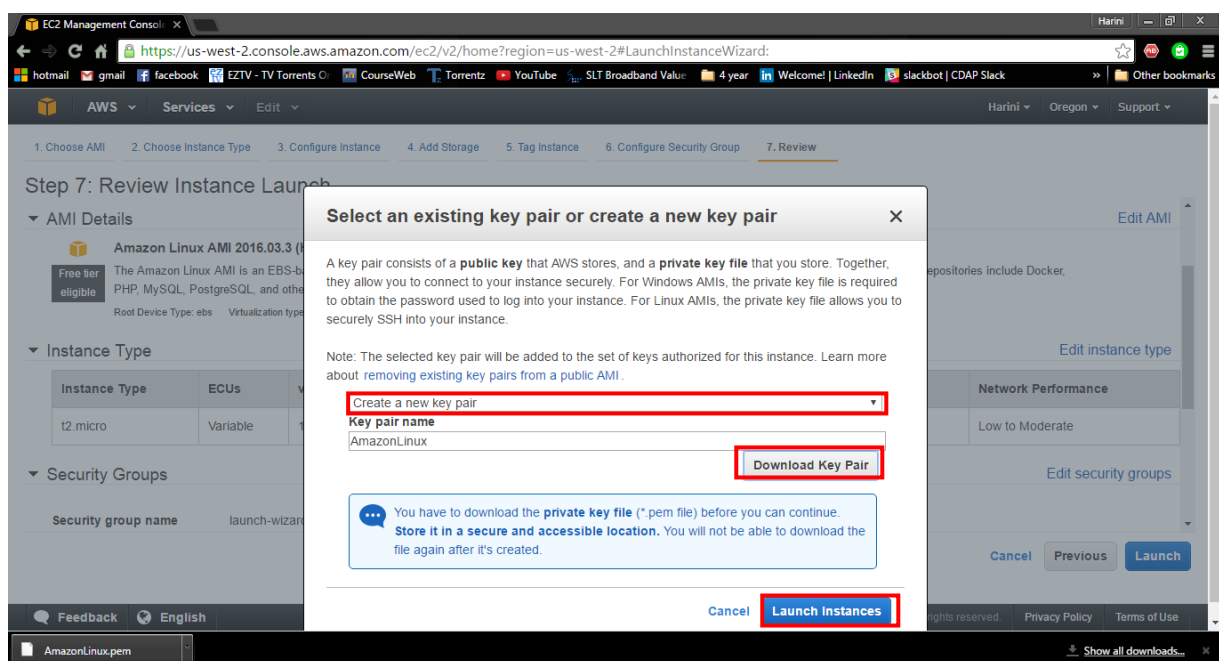


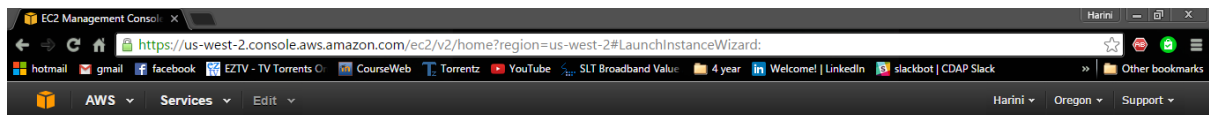
Step 6: Select an existing key pair or create a new key pair

Choose **Create a new key pair** to download a new key pair.

Enter a name for the key pair. Then choose **Download Key Pair**.

Then select **Launch Instances**.





Launch Status



Initiating Instance Launches

Please do not close your browser while this is loading

Creating security groups... Successful

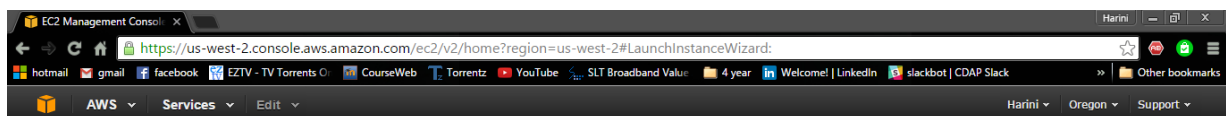
Authorizing inbound rules... Successful

Initiating launches...



Step 7: Launch Status

Choose **View Instances** after launching.



Launch Status



Your instances are now launching

The following instance launches have been initiated: i-0c8d6b2621b80bd11 [View launch log](#)



Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)



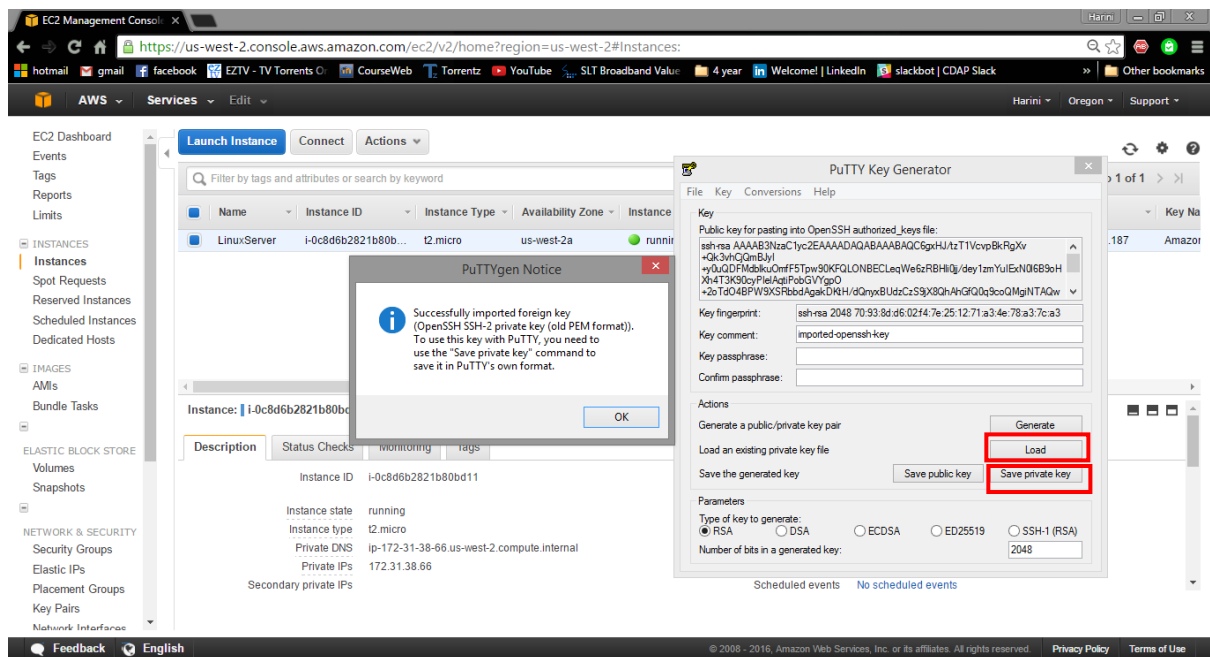
2. Connect to the Instance

Step 1: Open PuTTY Key Generator.

Then browse and **Load** the downloaded key pair file.

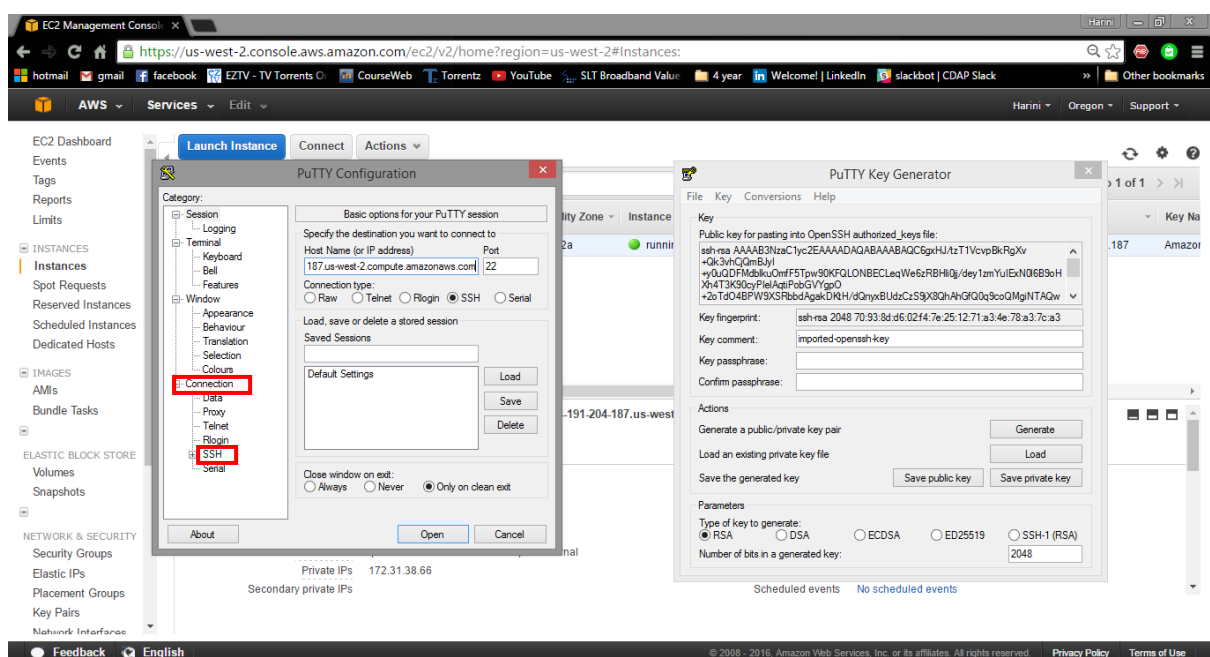
PuTTYgen Notice will inform that it successfully imported foreign key.

Then select **Save private key** to download the private key.

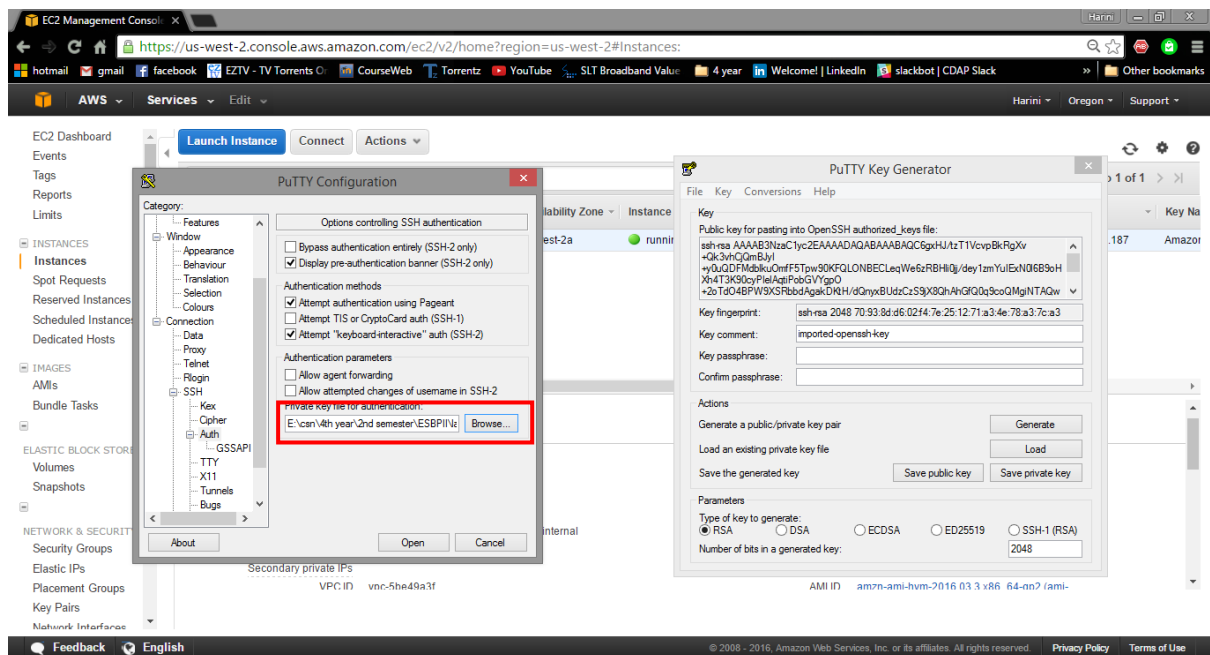


Step 2: Open PuTTY Configuration.

Go to Connection category for SSH authentication. (Connection -> SSH -> Auth)



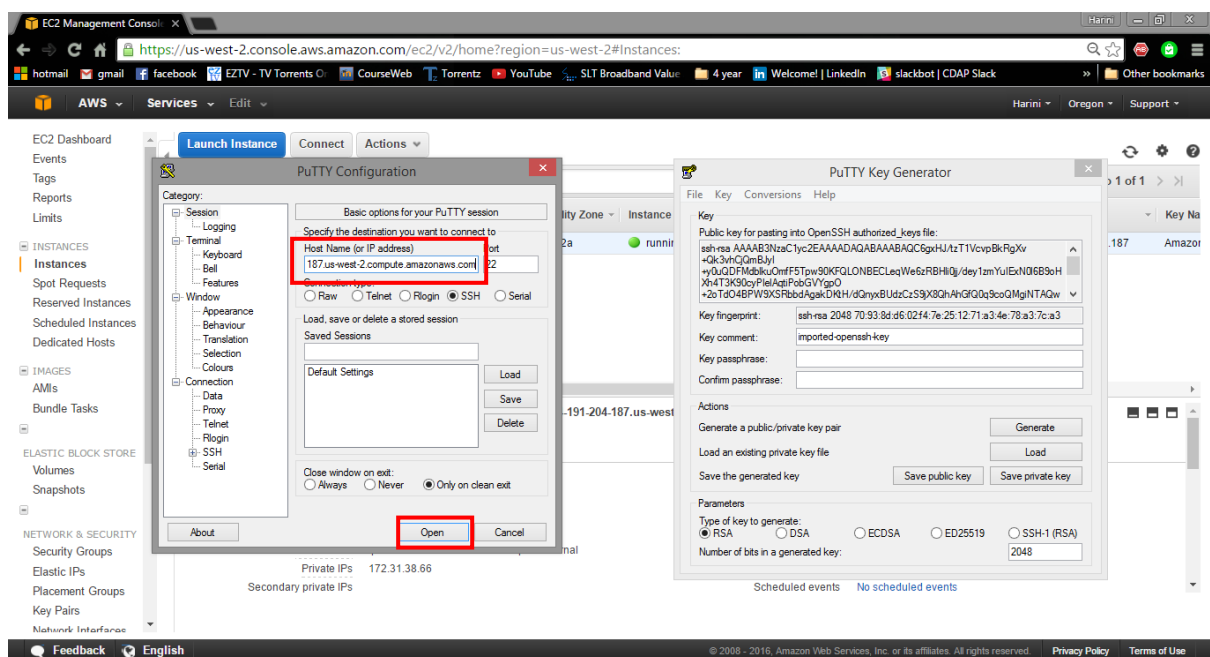
Step 3: Under authentication parameters **Browse** saved private key and load it.



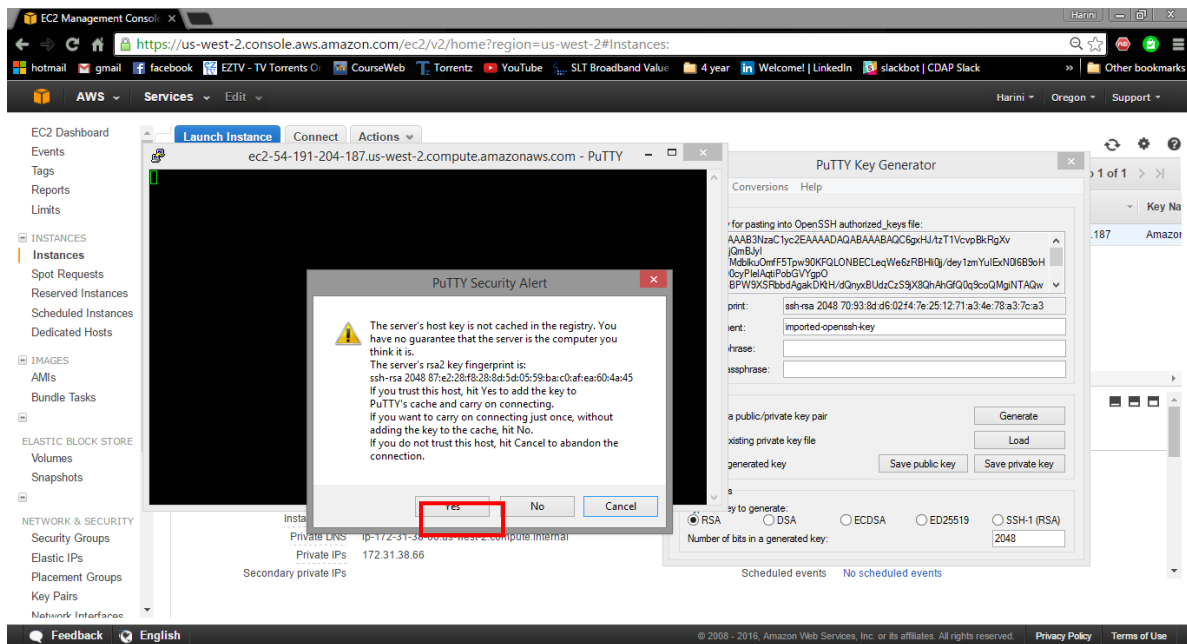
Step 4: Go back to **Session** category in PuTTY Configuration.

Copy the **Public DNS** of created instance and paste it under **Host Name (or IP address)**.

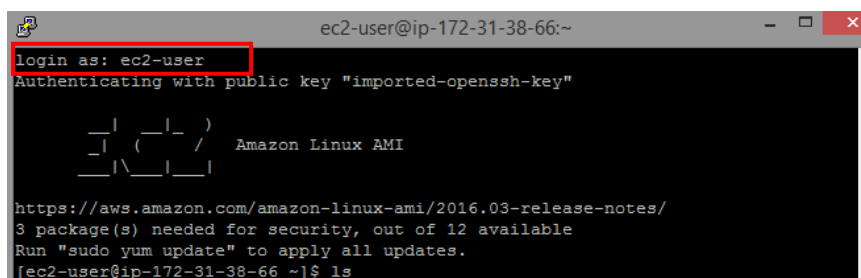
Set Connection type to **SSH** and select **Open**.



Step 4: Select Yes in PuTTY Security Alert.



Step 5: Log in to Linux by giving user name in the kernel. (ec2-user)



Step 6: Type some Linux commands to check. (ls -al)

