



Sri Lanka Institute of Information Technology

Year 4, Semester 2 – 2016  
ESBPII  
Lab Assignment 1  
Configuring Windows and Linux Servers on AWS

Name: Marasinghe M.M.K.B  
Reg No: IT13127374  
Batch: Weekday

# Getting Started with Amazon EC2 Windows Instances.

## 1. Select EC2 in Amazon Web Services Amazon EC2 console .

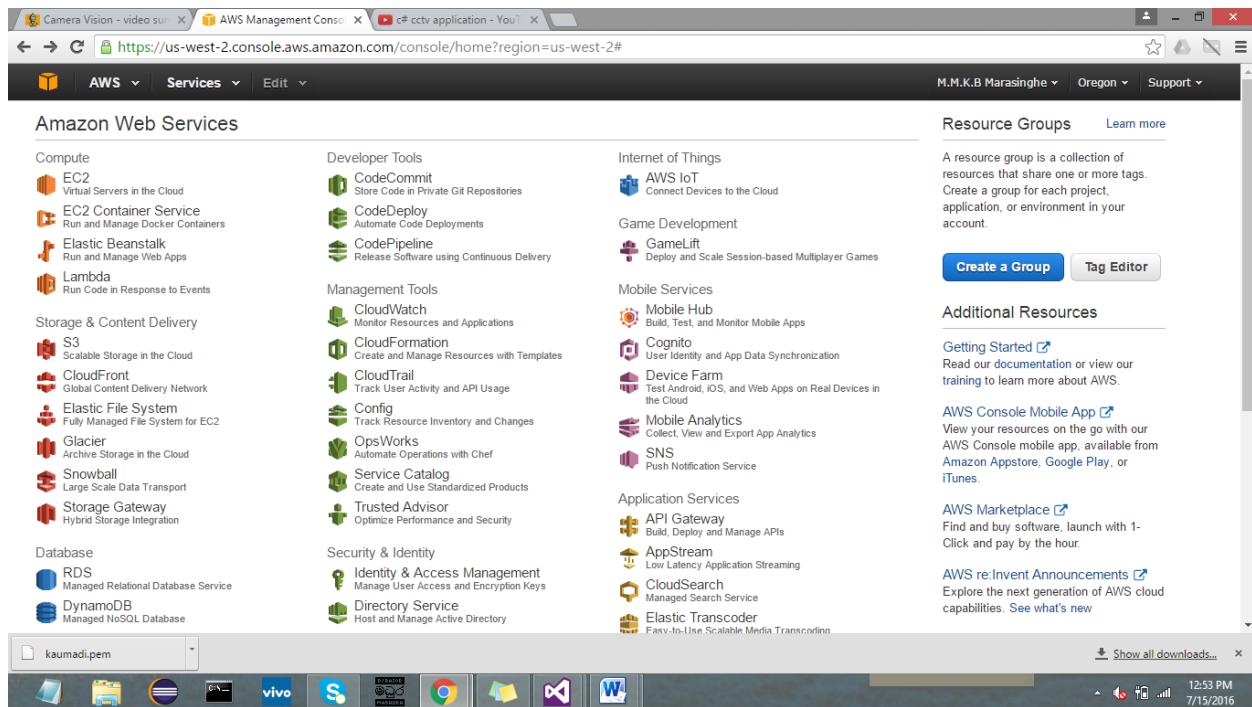
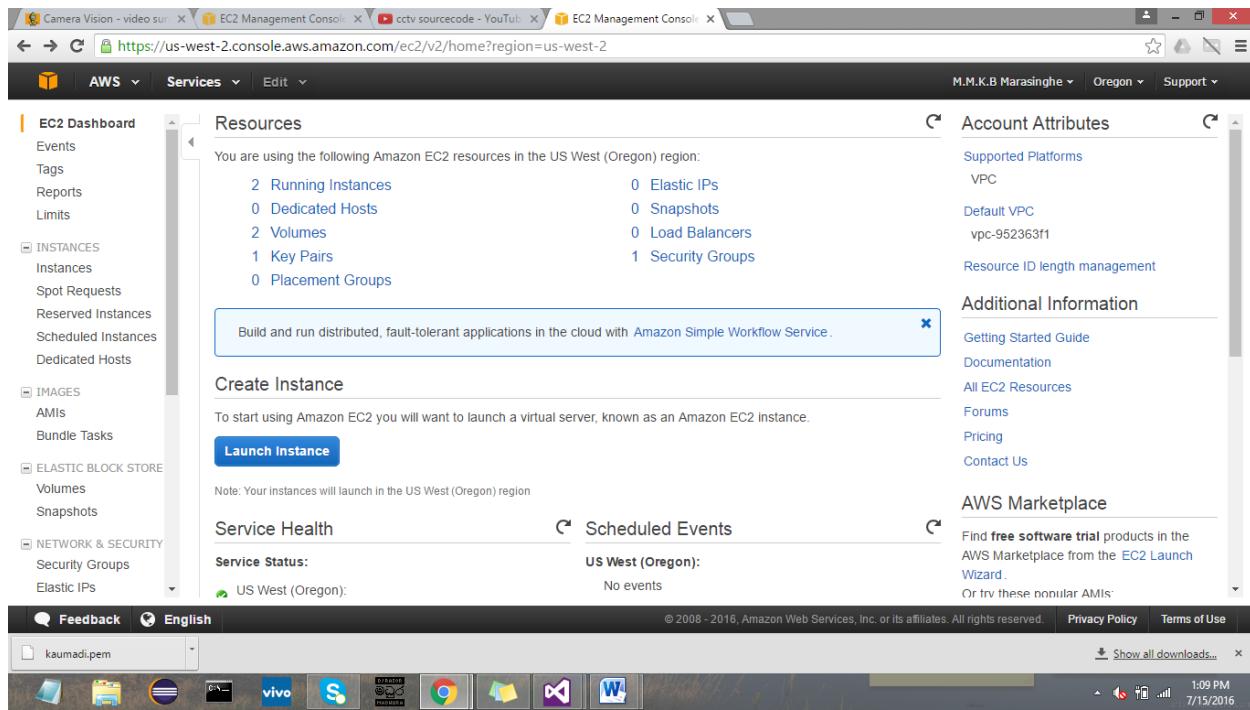


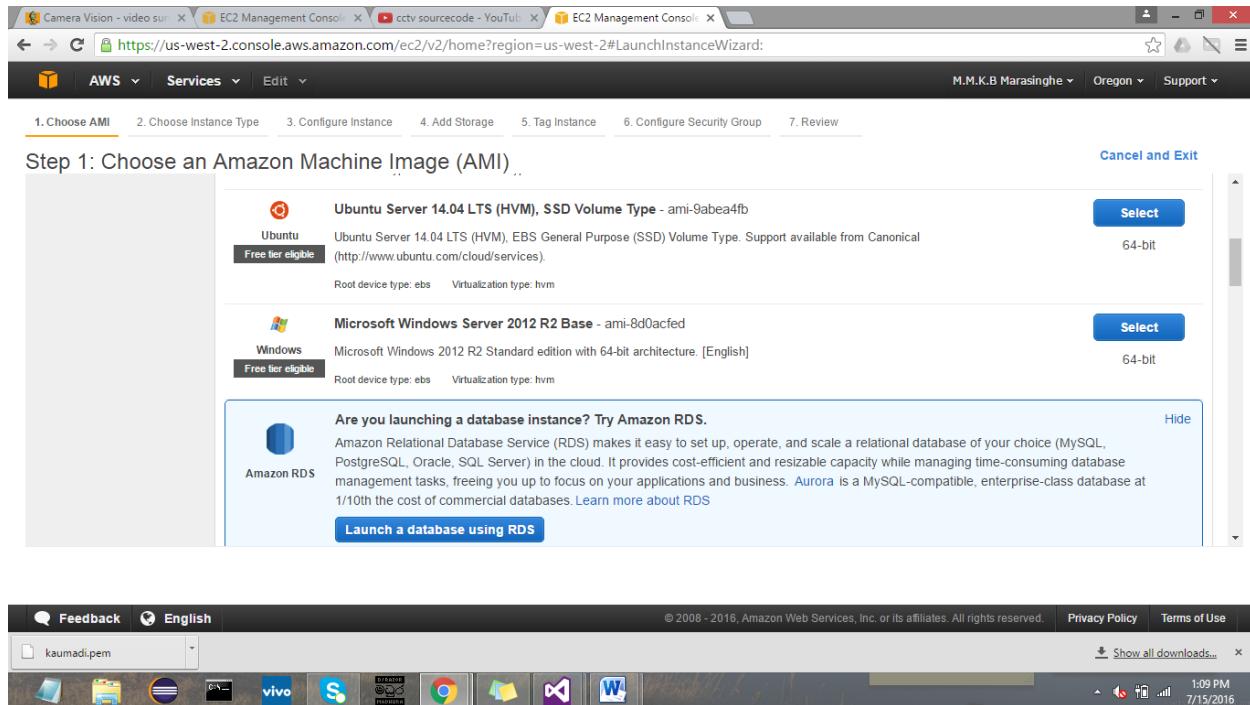
Figure 1

## 2. Select Create Instances button in EC2 Dashboard.



**Figure 2**

## 3. Select the HVM edition of the Amazon ‘Microsoft Windows Server 2012 R2 Base’



**Figure 3**

#### 4. Choose an default instance type

**Step 2: Choose an Instance Type**

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
General purpose	<b>t2.micro</b> <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate
General purpose	t2.small	1	2	EBS only	-	Low to Moderate
General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
General purpose	t2.large	2	8	EBS only	-	Low to Moderate

**Review and Launch**

**Figure 4**

#### 5. Click launch Button for launch Microsoft Windows Server 2012 R2 Base'

**Step 7: Review Instance Launch**

**Instance Type**

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

**Security Groups**

**Security group name:** launch-wizard-1  
**Description:** launch-wizard-1 created 2016-07-15T12:59:31.156+05:30

Type	Protocol	Port Range	Source
RDP	TCP	3389	0.0.0.0/0

**Launch**

**Figure 5**

## 6. Select default Security Group id .

**Step 6: Configure Security Group**

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more about Amazon EC2 security groups.](#)

**Assign a security group:**

- Create a new security group
- Select an existing security group

Security Group ID	Name	Description	Actions
sg-cc0a7aaa	default	default VPC security group	<a href="#">Copy to new</a>

**Inbound rules for sg-cc0a7aaa (Selected security groups: sg-cc0a7aaa)**

Type	Protocol	Port Range	Source
All traffic	All	All	sg-cc0a7aaa (default)

[Cancel](#) [Previous](#) [Review and Launch](#)

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Show all downloads... 1:02 PM 7/15/2016

**Figure 6**

## 7. click review and launch.

**Step 7: Review Instance Launch**

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

**AMI Details**

Microsoft Windows Server 2012 R2 Base - ami-8d0acfed  
 Free tier eligible Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]  
 Root Device Type: ebs Virtualization type: hvm

**Instance Type**

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

**Security Groups**

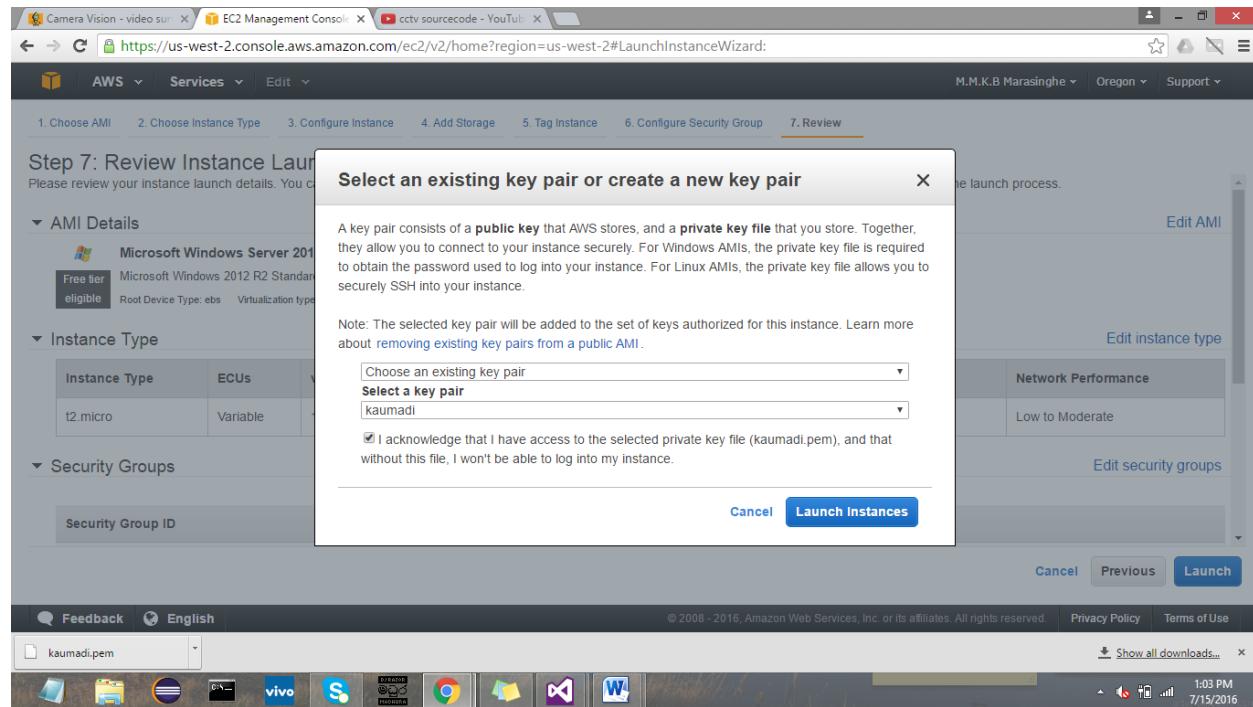
Security Group ID	Name	Description
sg-cc0a7aaa	default	default VPC security group

[Edit](#) [Cancel](#) [Previous](#) [Launch](#)

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Show all downloads... 1:02 PM 7/15/2016

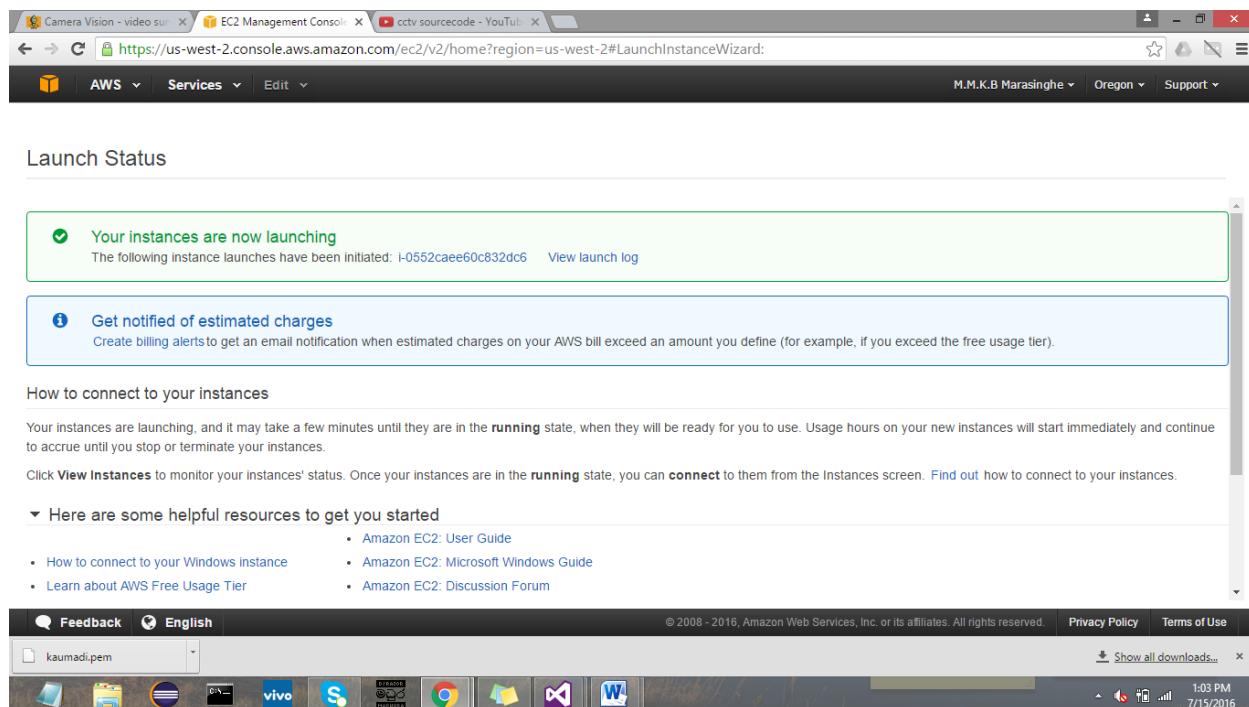
**Figure 7**

8. Select 'Create a new key pair' and give any name to 'Key pair name' and click 'Download Key Pair' then a file named Kaumadi\_key.pem will download after that click 'Launch Instances'.



**Figure 8**

## 9. Launch Status window.



**Figure 9**

## 10. Select ‘ view instances’ to Launch Status window.

The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard>. The page title is "Launch Status". It contains sections for "How to connect to your instances", "Helpful resources", and "While your instances are launching you can also". A "View Instances" button is visible at the bottom right.

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

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

While your instances are launching you can also

[Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)

[Create and attach additional EBS volumes](#) (Additional charges may apply)

[Manage security groups](#)

[View Instances](#)

Figure 10

## 11. Click Connect Button

The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances>. The page title is "Instances". The left sidebar shows "Instances" selected. The main area displays a table of instances with two entries:

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Publ
	i-02383bb241e56269c	t2 micro	us-west-2b	running	2/2 checks ...	None	ec2-52-34-145-176.us-w...	52.34
	i-0552cae60c832dc6	t2 micro	us-west-2b	running	Initializing	None	ec2-52-41-171-124.us-w...	52.41

A "Connect" button is visible above the table. The status bar at the bottom indicates the time as 1:04 PM on 7/15/2016.

Figure 11

## 12. Select Get password and download Desktop File.

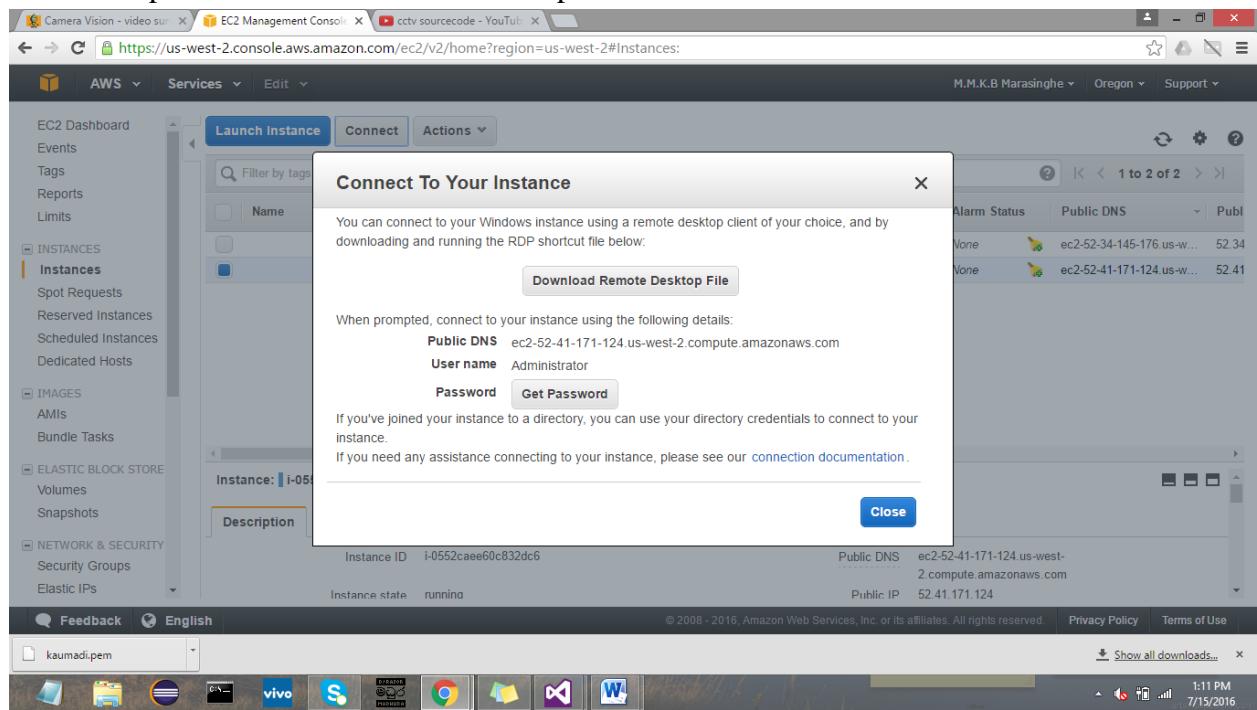


Figure 12

## 13. Then Choose downloaded Key Pair and next click Decrypt Password.

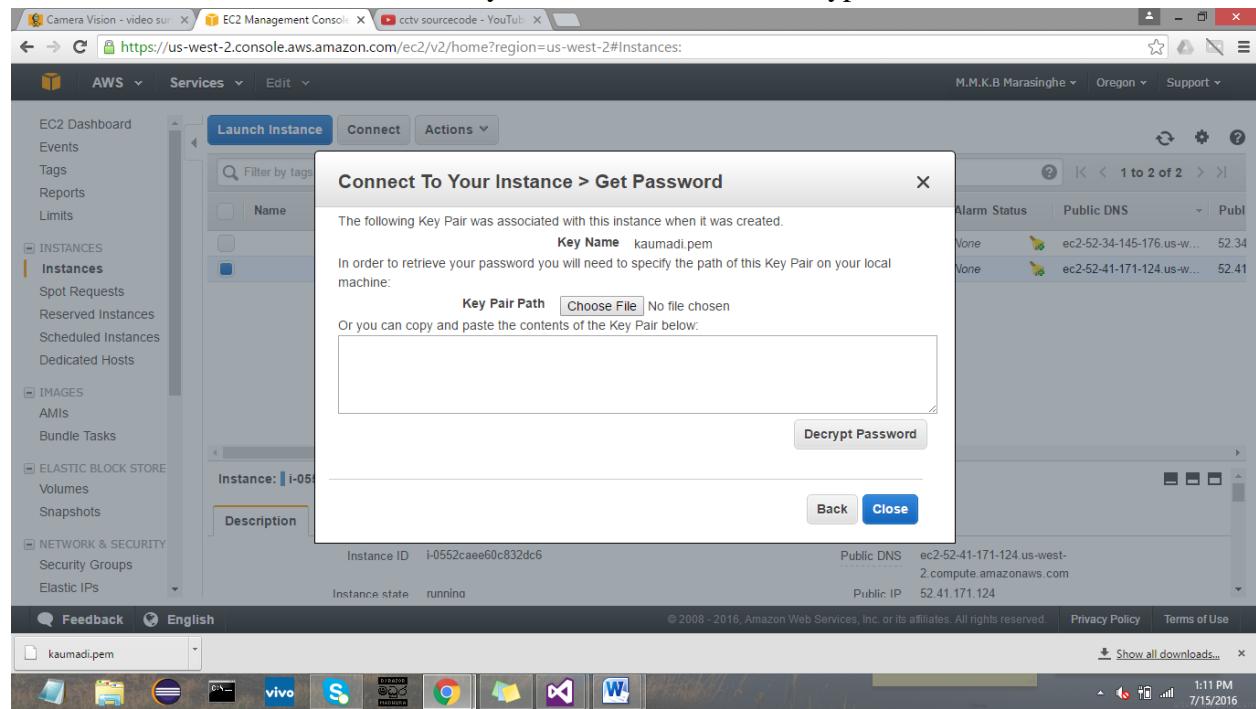
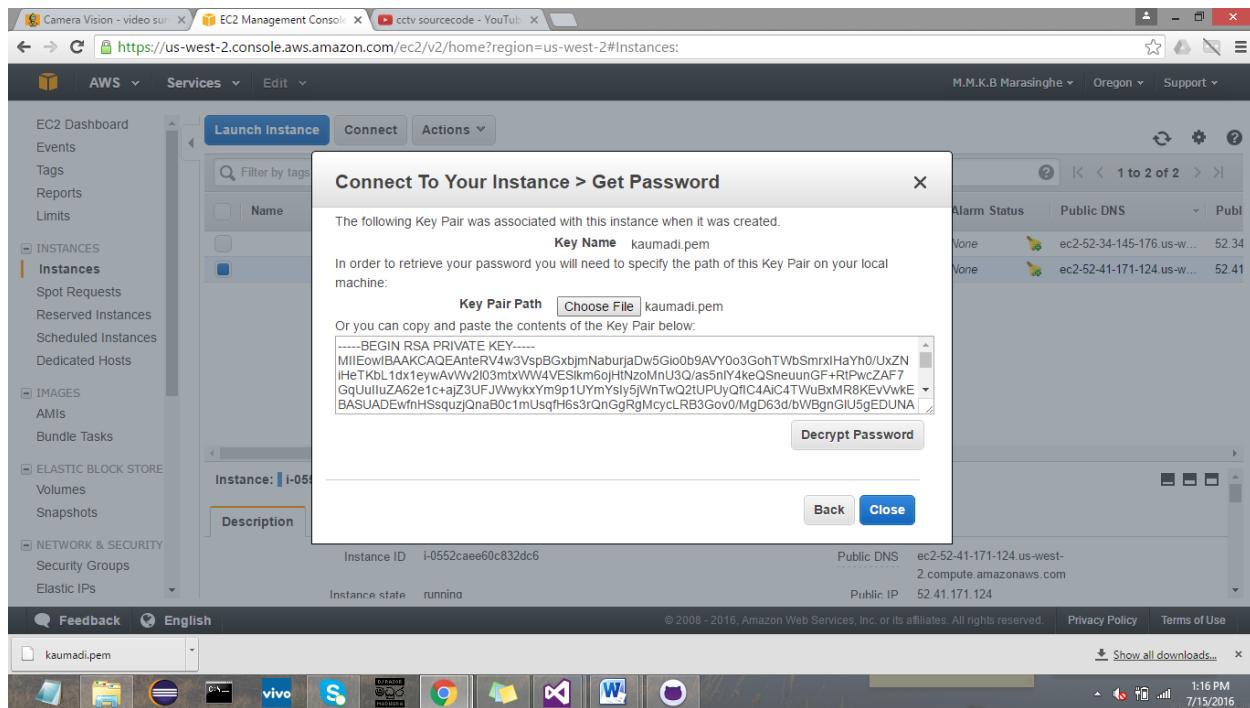
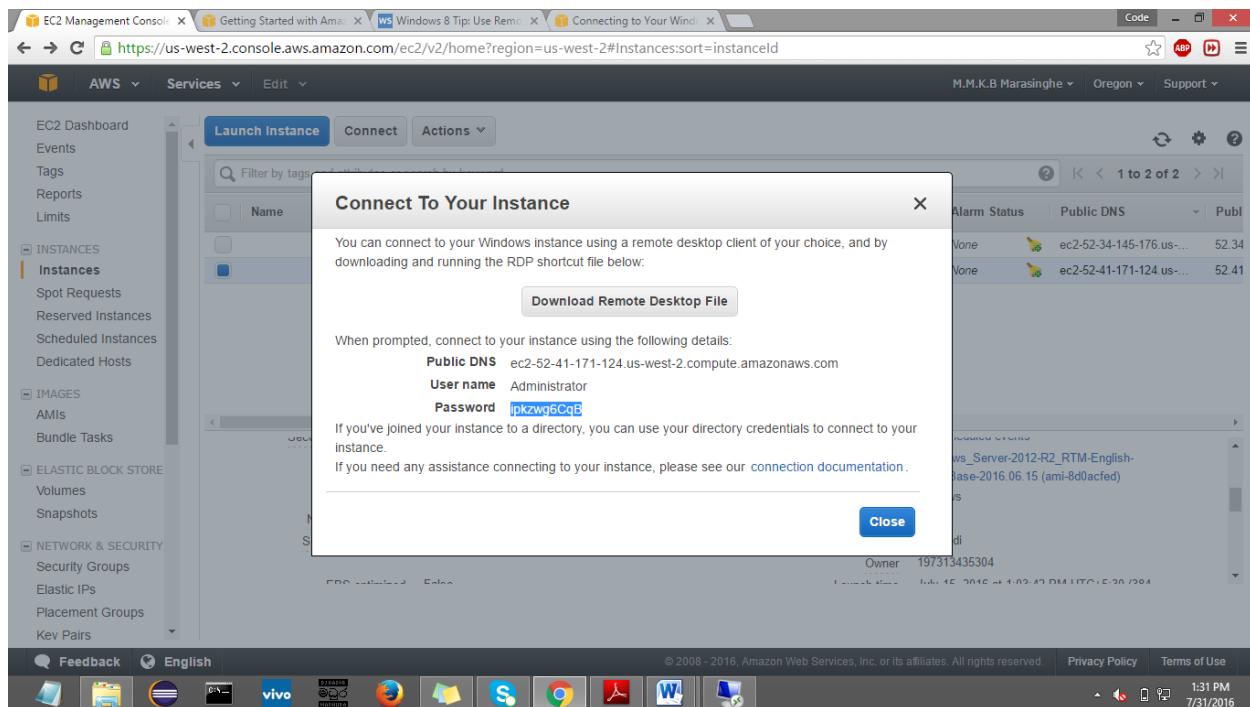


Figure 13

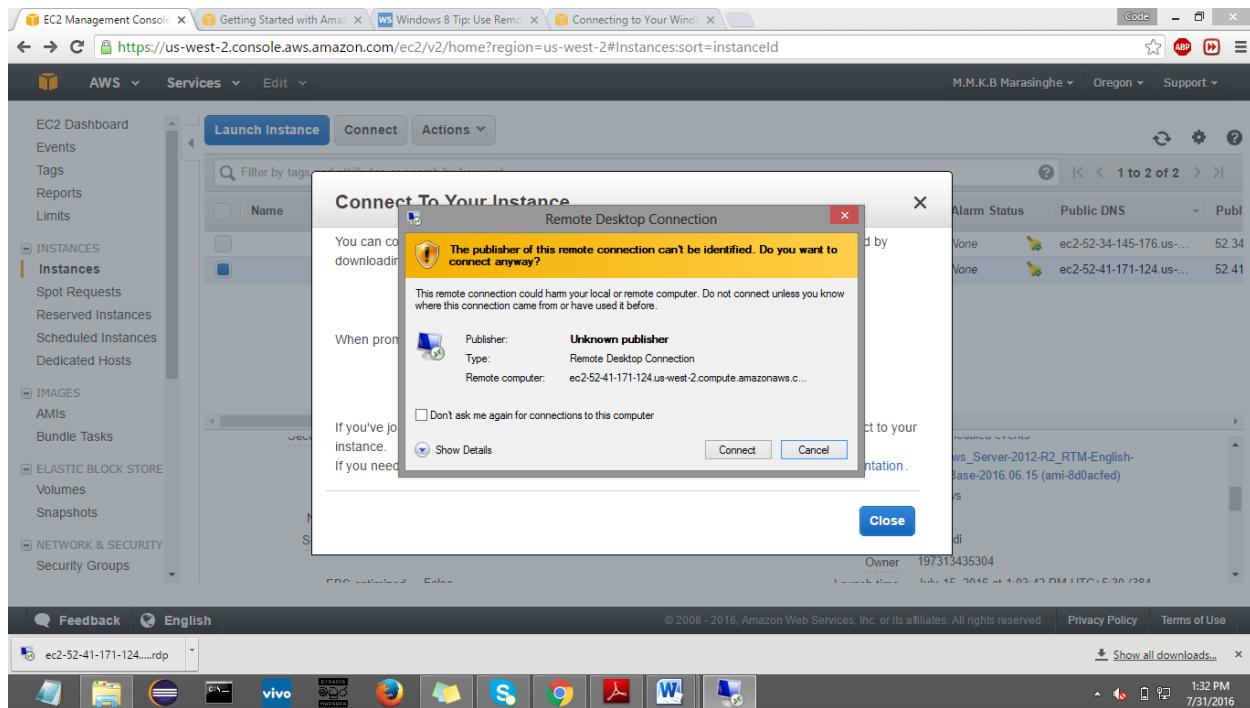


**Figure 14**



**Figure 15**

#### 14. Connect Remote Desktop Connection.



**Figure 16**

To connect to your Windows instance using an RDP client

1. In the Amazon EC2 console, select the instance, and then choose **Connect**.
2. In the **Connect To Your Instance** dialog box, choose **Get Password** (it will take a few minutes after the instance is launched before the password is available).
3. Choose **Browse** and navigate to the private key file you created when you launched the instance. Select the file and choose **Open** to copy the entire contents of the file into clipboard.
4. Choose **Administrator password** and enter the password you copied to clipboard. You need this password to connect to the instance.
5. Record the IP address of the instance and the port number in the clipboard. You need this information to connect to the instance.
6. Choose **Download Remote Desktop File**. Your browser prompts you to either open or save the .rdp file. Either option is fine. When you have finished, you can choose **Close** to dismiss the **Connect To Your Instance** dialog box.
  - If you opened the .rdp file, you'll see the **Remote Desktop Connection** dialog box.
  - If you saved the .rdp file, navigate to your downloads directory, and open the .rdp file to display the dialog box.

**Figure 17**

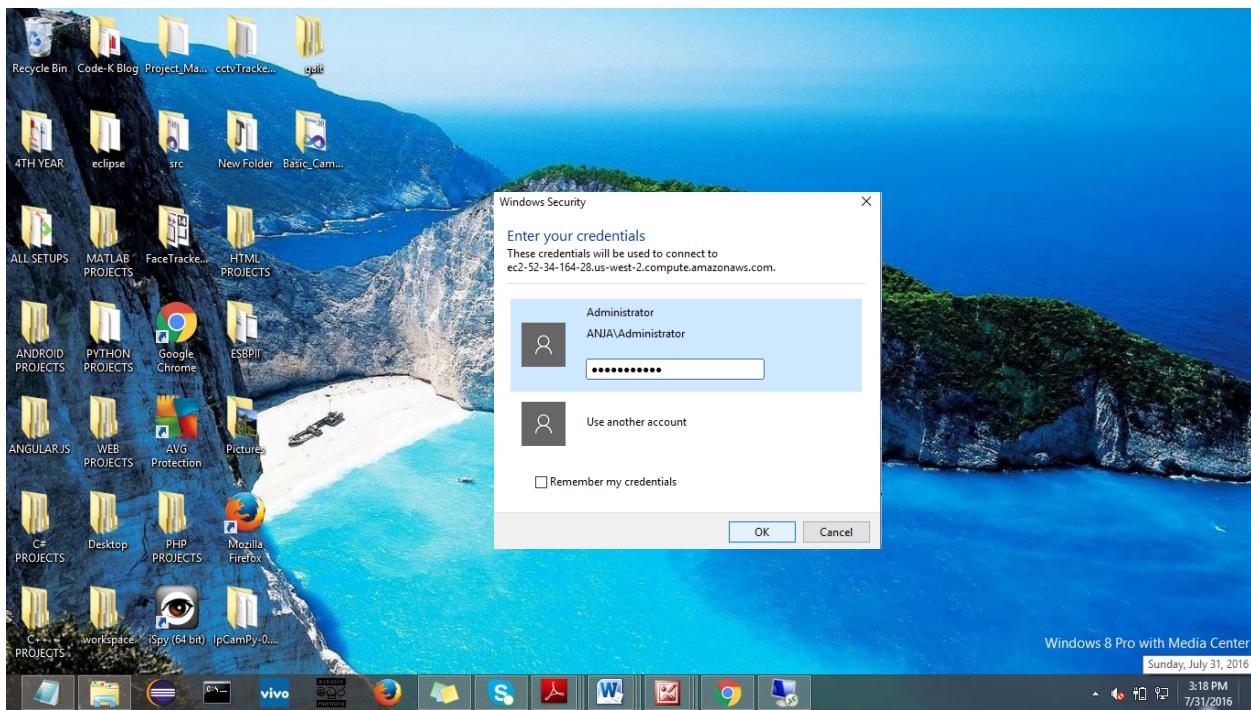


Figure 18

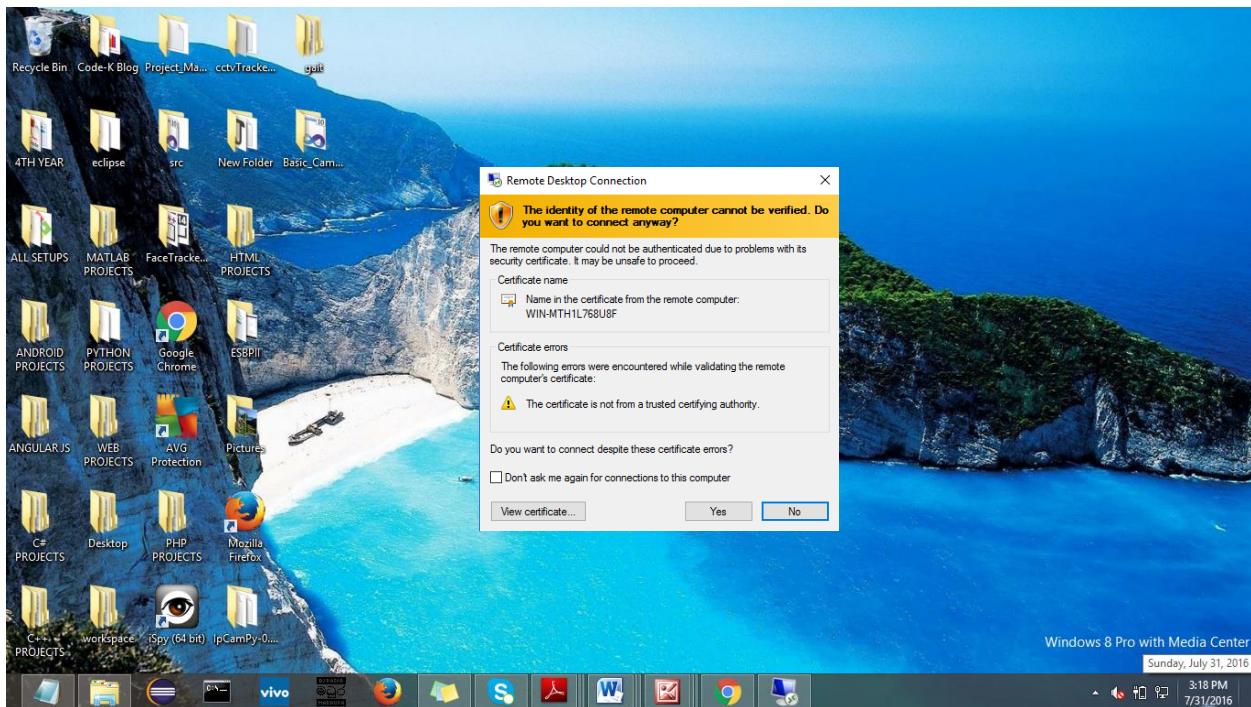


Figure 19

## 15. Load Administrator Window.

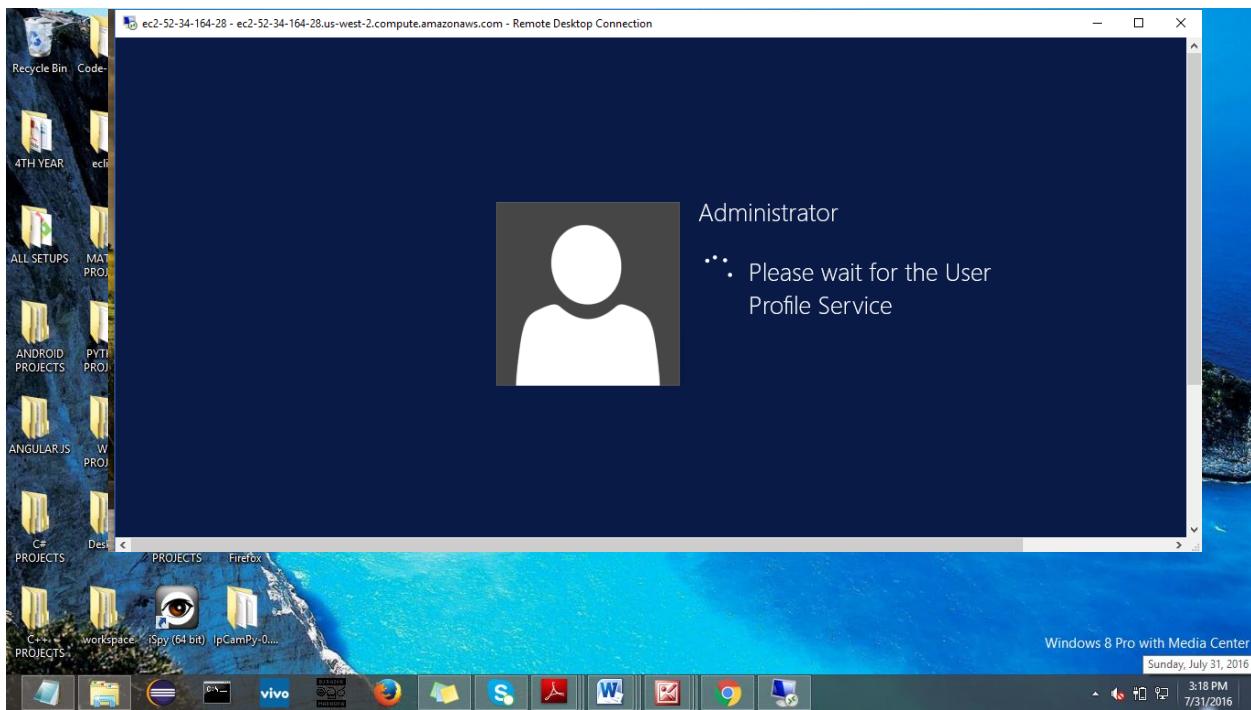


Figure 20

16. Now open the 'Windows Server'.

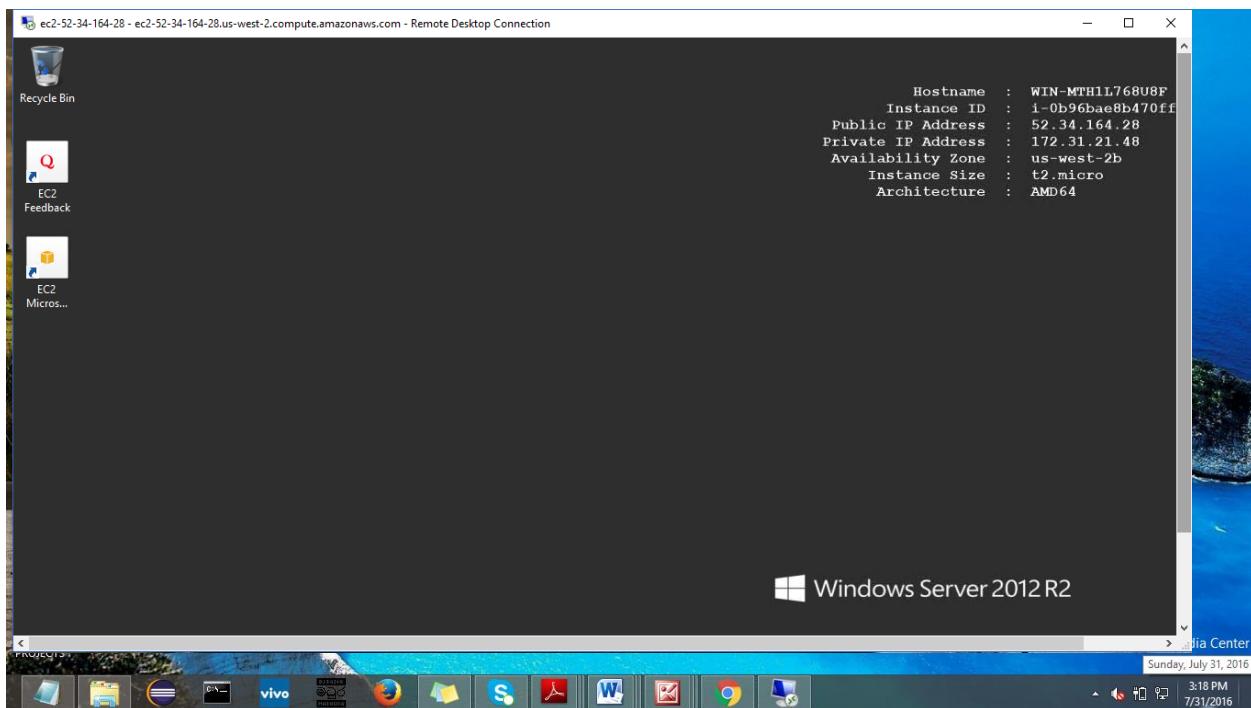


Figure 21

# Getting Started with Amazon EC2 Linux Instances

---

1.

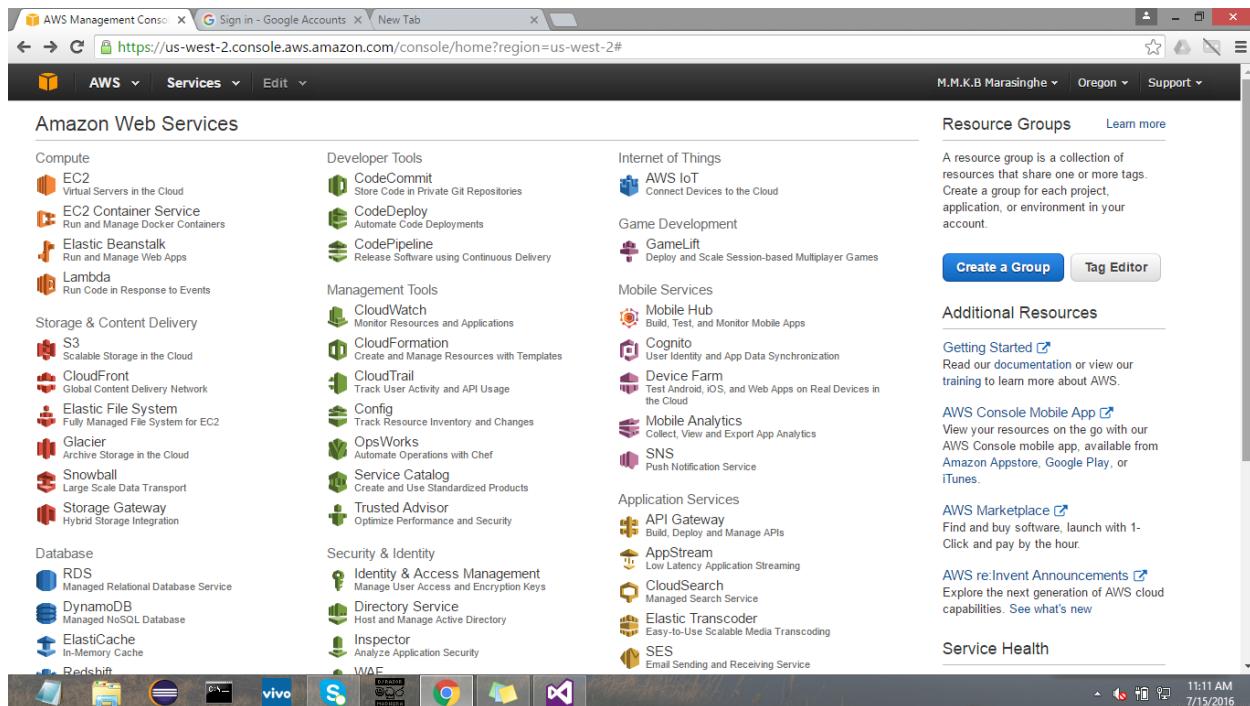


Figure 22

2.

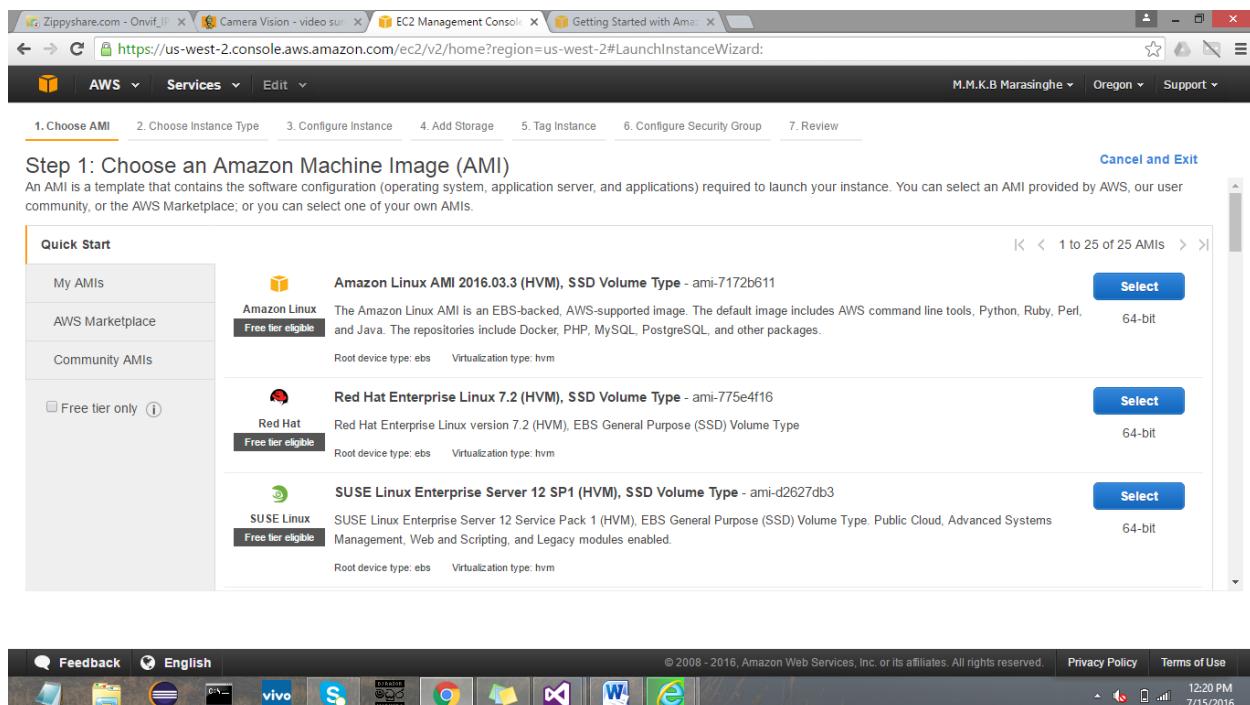


Figure 23

3.

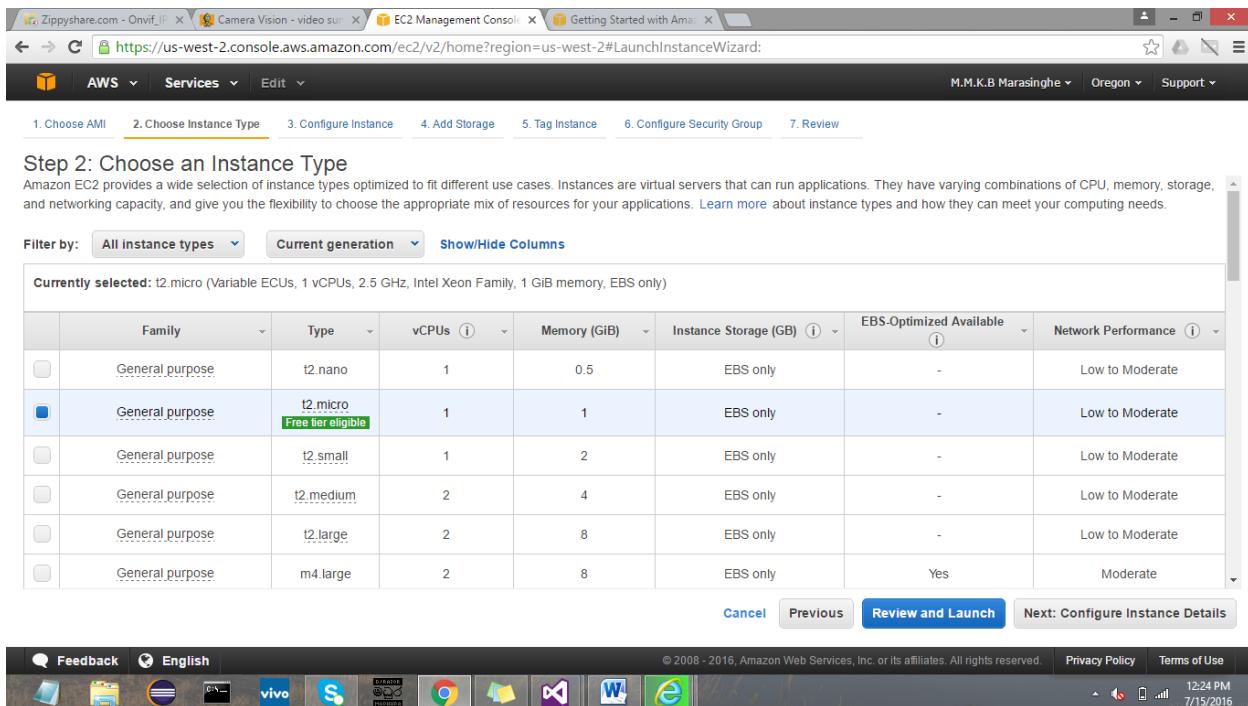


Figure 24

4.

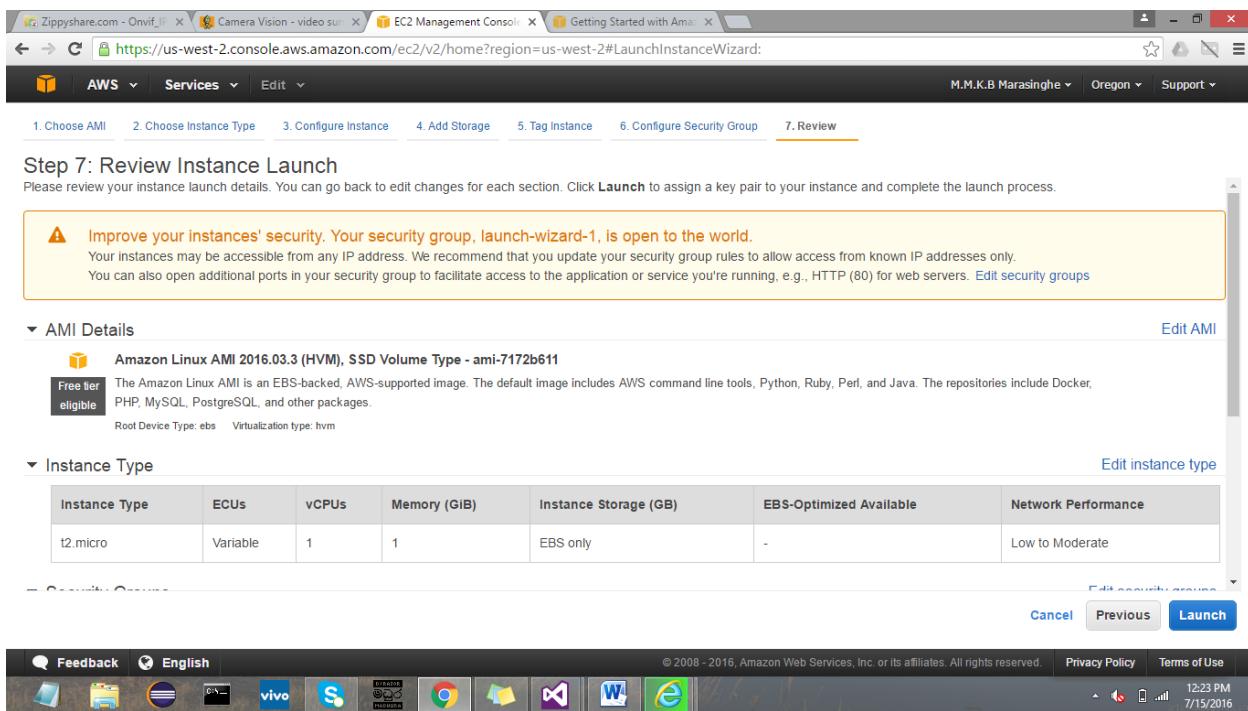


Figure 25

5.

The screenshot shows the AWS EC2 Management Console Step 7: Review Instance Launch wizard. At the top, there are tabs for 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Tag Instance, 6. Configure Security Group, and 7. Review. The 7. Review tab is selected. Below the tabs, the heading "Step 7: Review Instance Launch" is displayed. A table summarizes the instance configuration:

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Below the table, a section titled "Security Groups" shows a single security group named "launch-wizard-1" with a description "launch-wizard-1 created 2016-07-15T12:26:00.439+05:30". It lists a rule for SSH (TCP port 22) from 0.0.0.0/0. There are links to "Edit security groups", "Edit instance details", "Edit storage", and "Edit tags". At the bottom right are "Cancel", "Previous", and "Launch" buttons.

Figure 26

6.

The screenshot shows the AWS EC2 Management Console Step 6: Configure Security Group wizard. At the top, there are tabs for 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Tag Instance, 6. Configure Security Group, and 7. Review. The 6. Configure Security Group tab is selected. The heading "Step 6: Configure Security Group" is displayed. A note explains that a security group is a set of firewall rules that control traffic for your instance. It includes a link to learn more about Amazon EC2 security groups.

The "Assign a security group:" section has two options: "Create a new security group" (radio button selected) and "Select an existing security group". The "Security group name:" field is set to "launch-wizard-1" and the "Description:" field is "launch-wizard-1 created 2016-07-15T12:25:59.547+05:30". Below this is a table for defining security rules:

Type	Protocol	Port Range	Source
SSH	TCP	22	Anywhere

A "Warning" box at the bottom left states: "Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only." At the bottom right are "Cancel", "Previous", and "Review and Launch" buttons.

Figure 27

7.

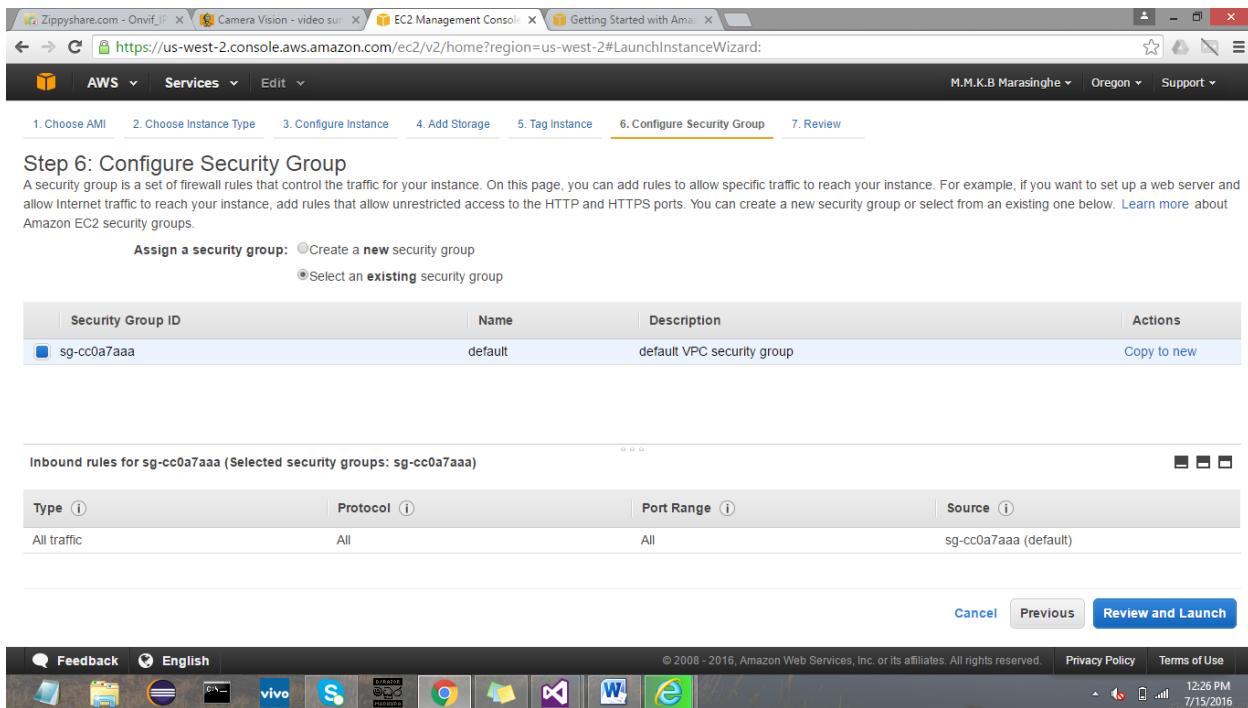


Figure 28

8.

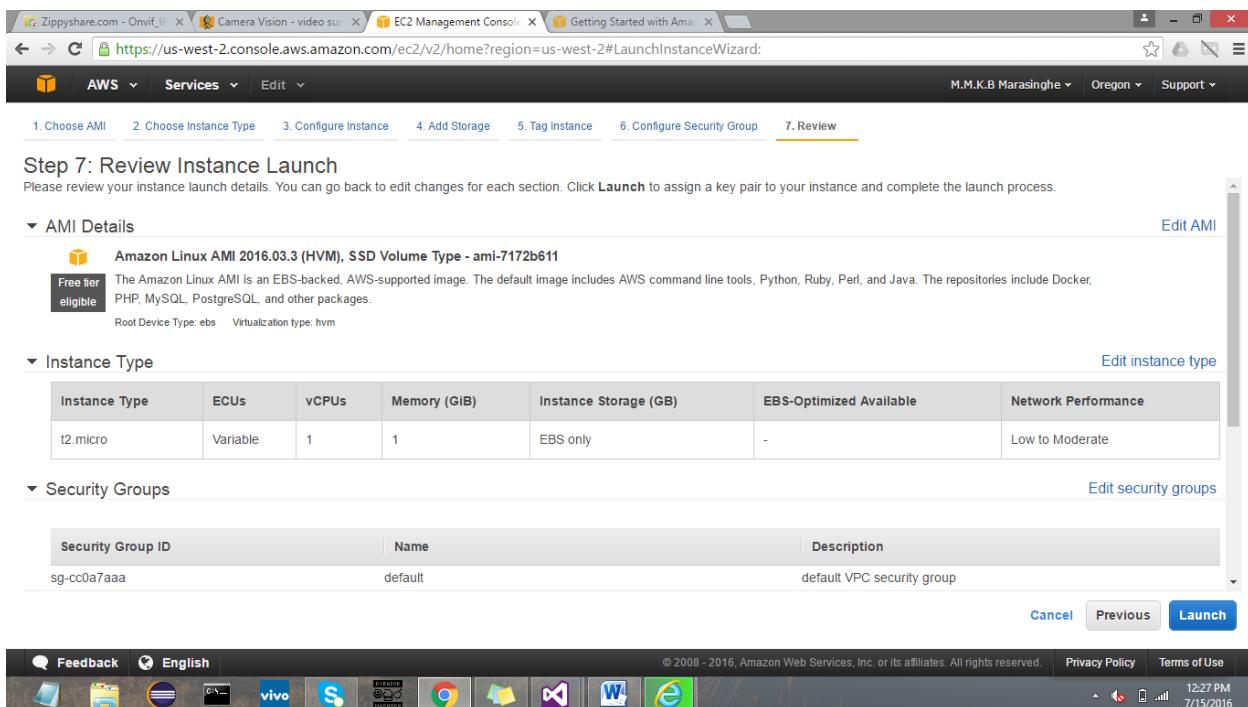


Figure 29

9.

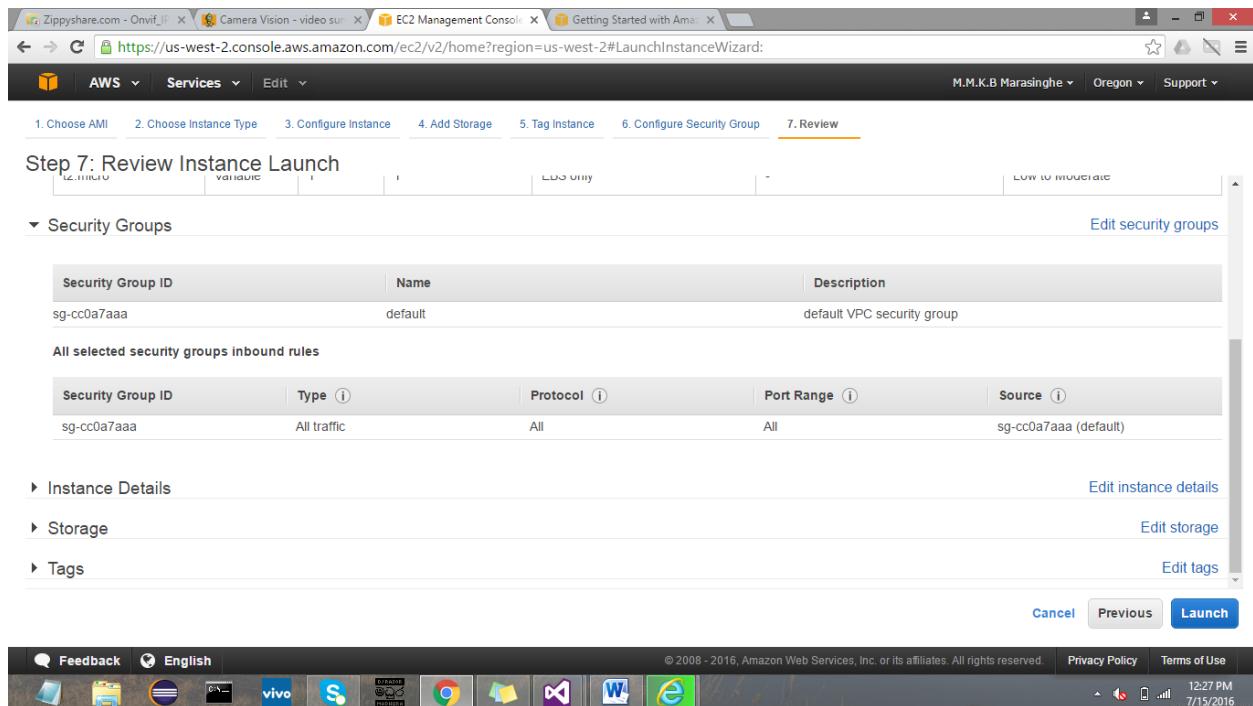


Figure 30

10.

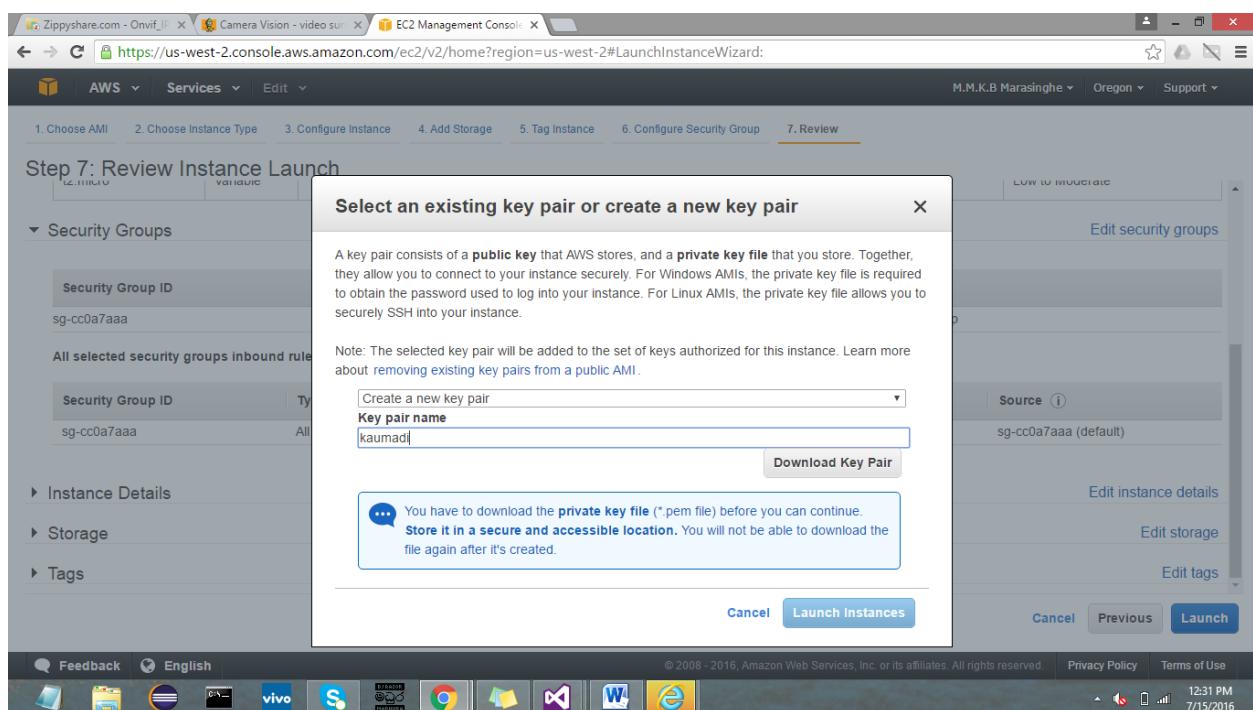


Figure 31

11.

Your instances are now launching  
The following instance launches have been initiated: I-02383bb241e56269 [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](#)

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Show all downloads... 12:33 PM 7/15/2016

Figure 32

12.

Your instances are now launching  
The following instance launches have been initiated: I-02383bb241e56269 [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](#)

While your instances are launching you can also

Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)  
Create and attach additional EBS volumes (Additional charges may apply)  
Manage security groups

[View Instances](#)

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Show all downloads... 12:33 PM 7/15/2016

Figure 33

13.

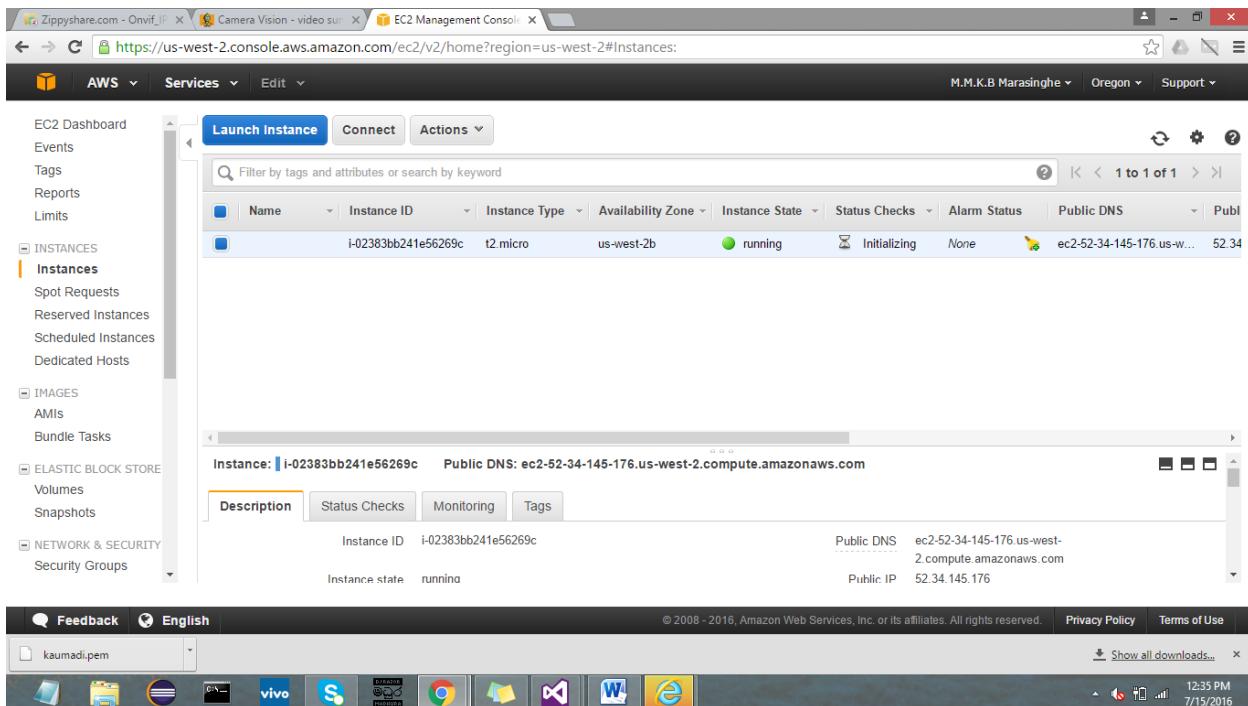


Figure 34

14.

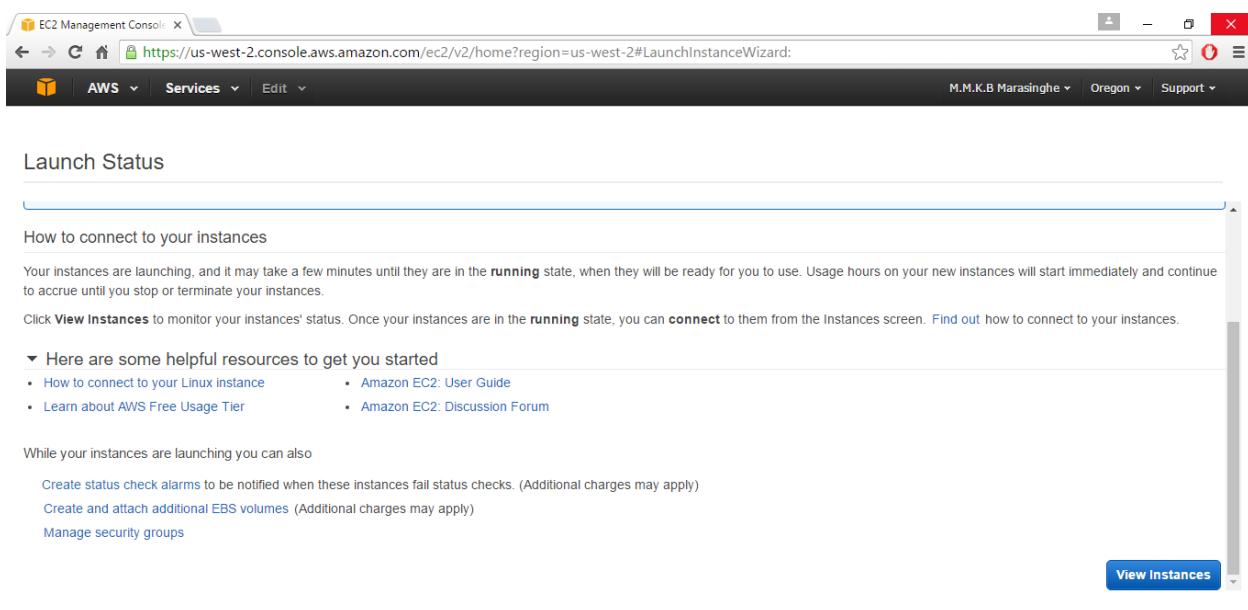


Figure 35

15.

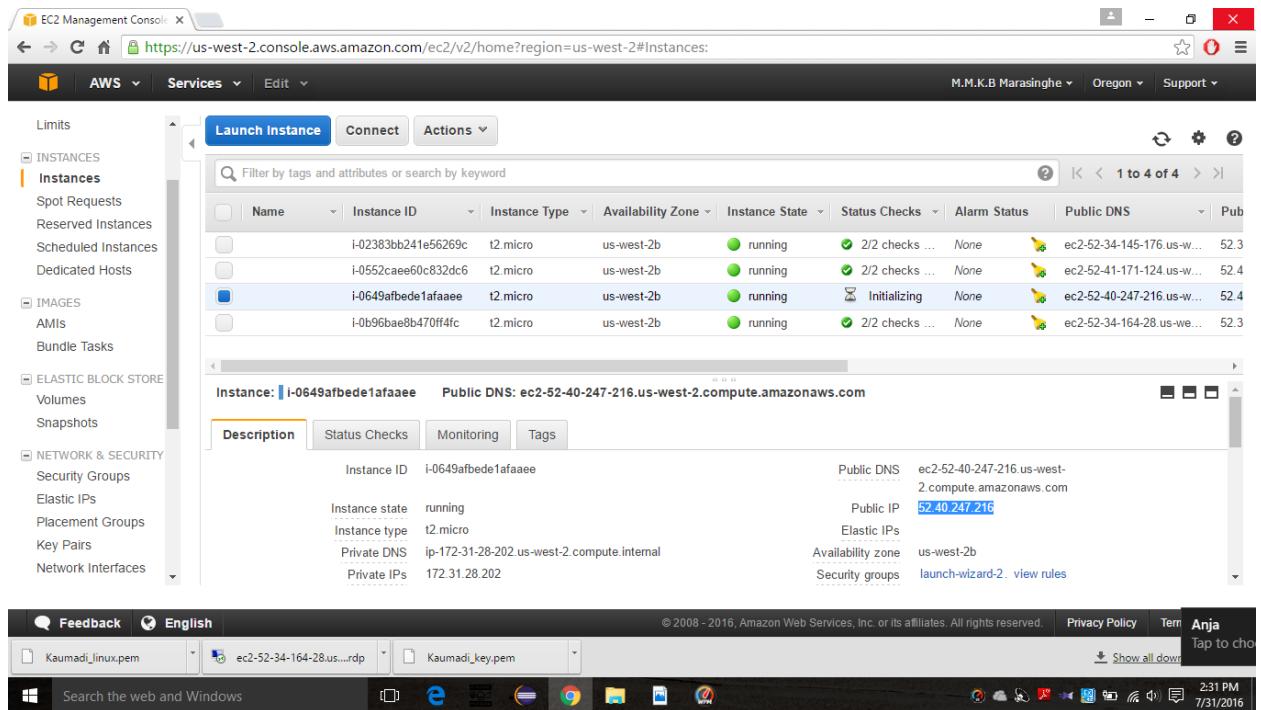


Figure 36

16.

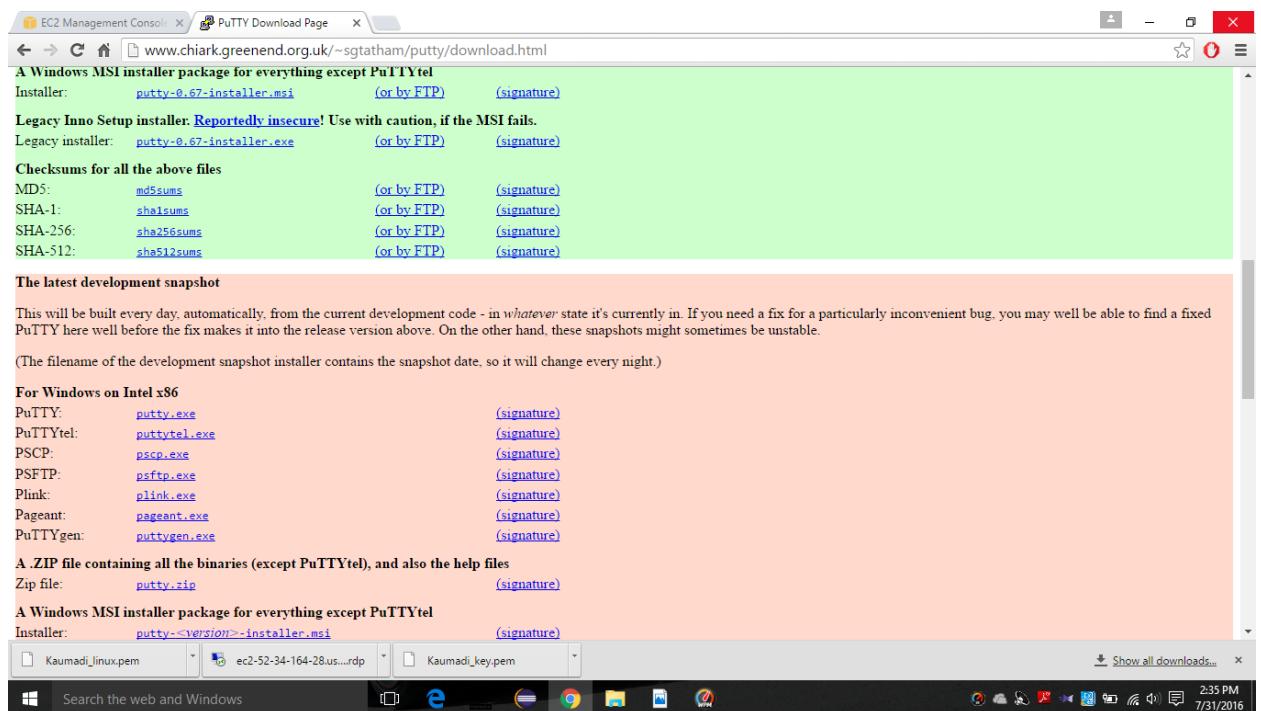
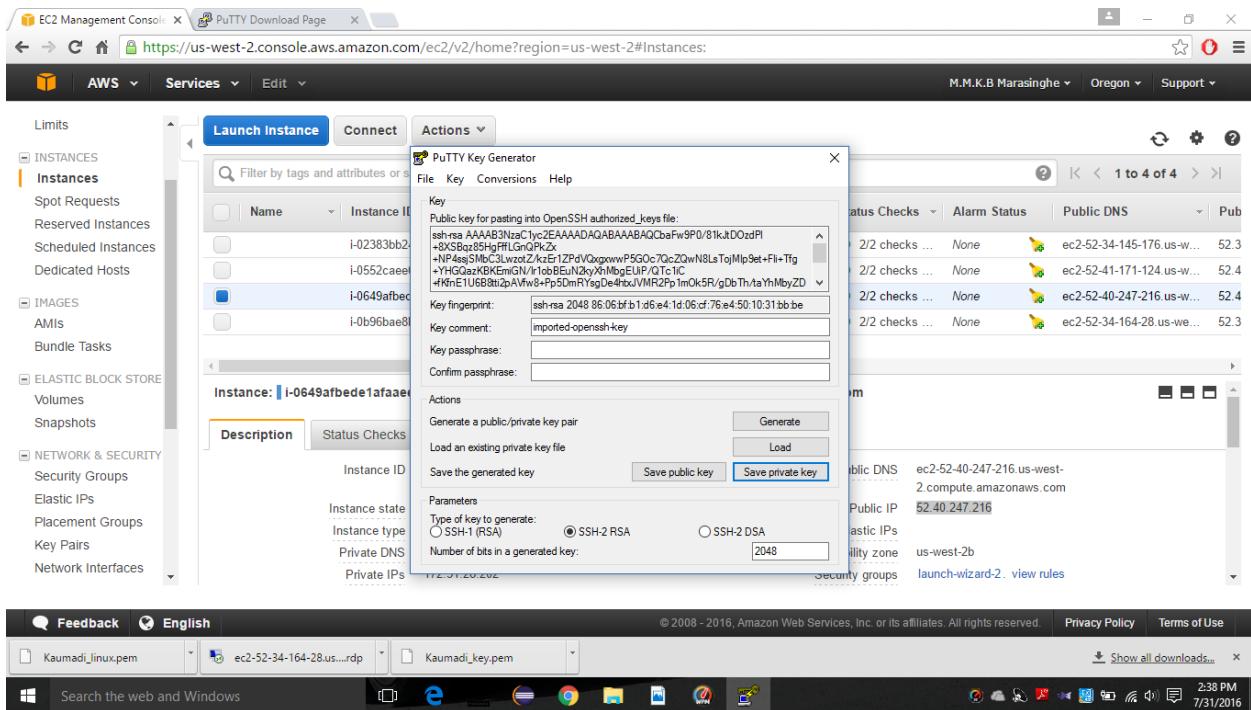


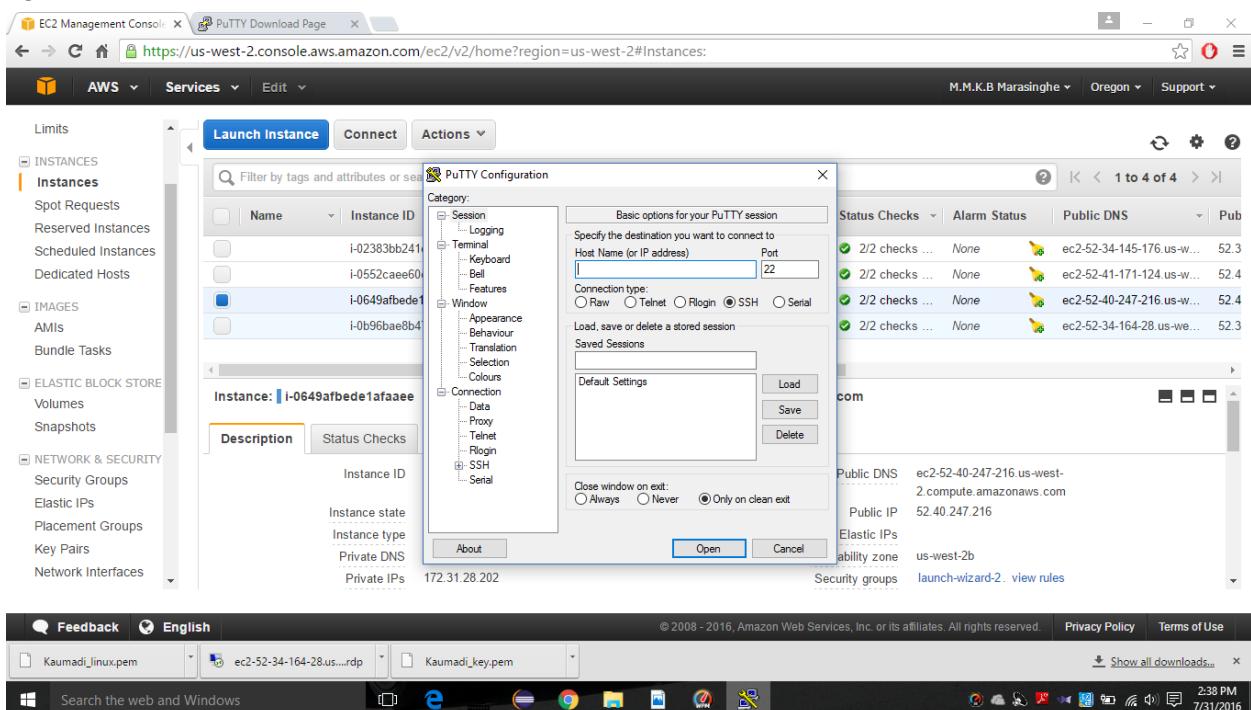
Figure 37

17.



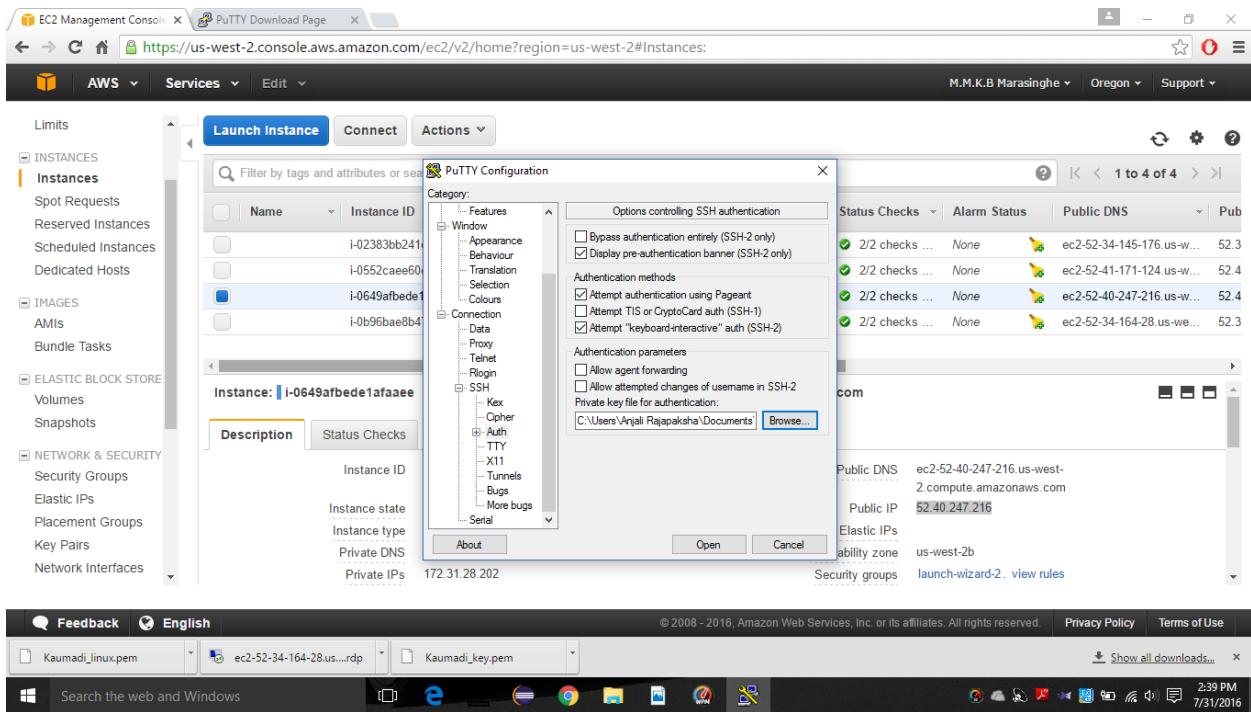
**Figure 38**

18.



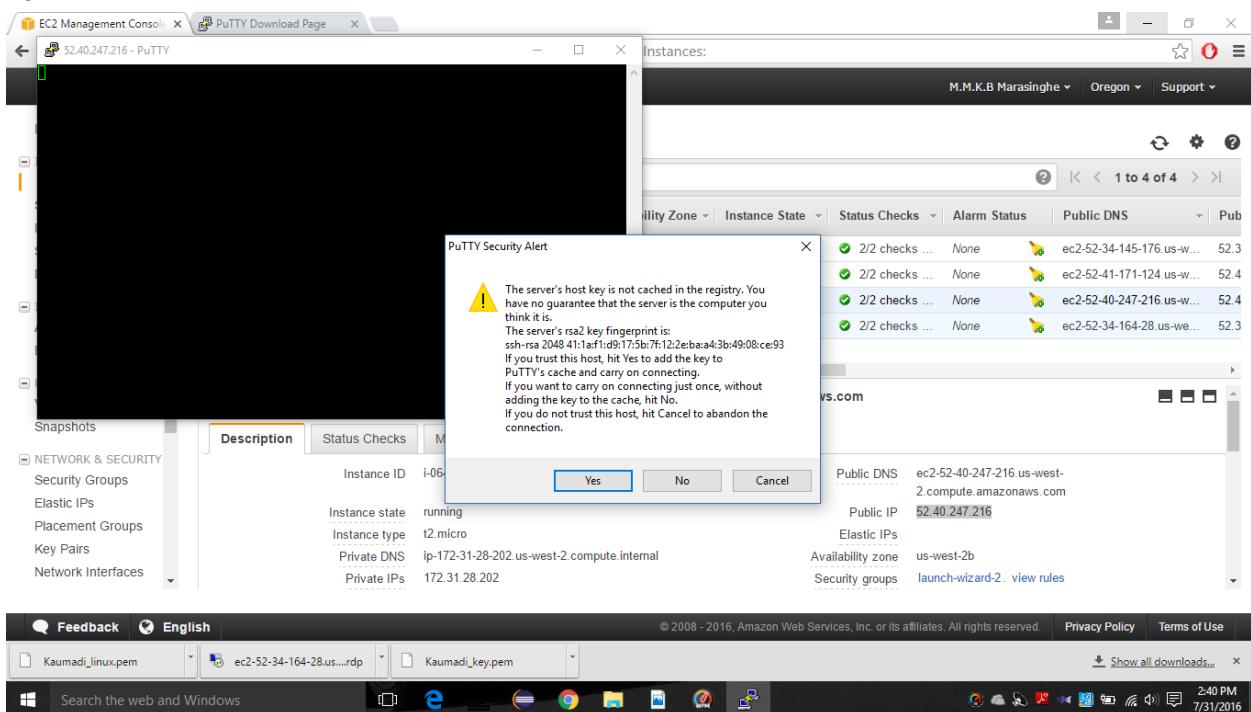
**Figure 39**

19.



**Figure 40**

20.



**Figure 41**

21.

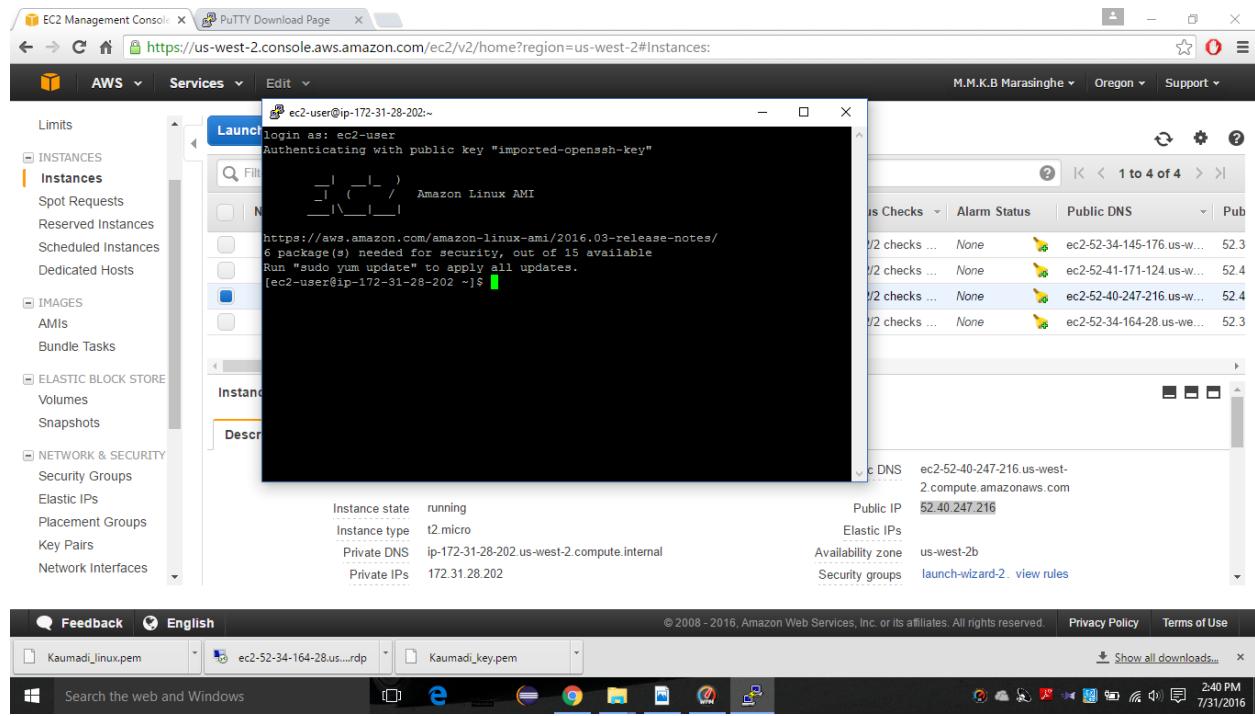


Figure 42