

Lab 1 & 2

Getting Started with Amazon EC2 Windows Instances

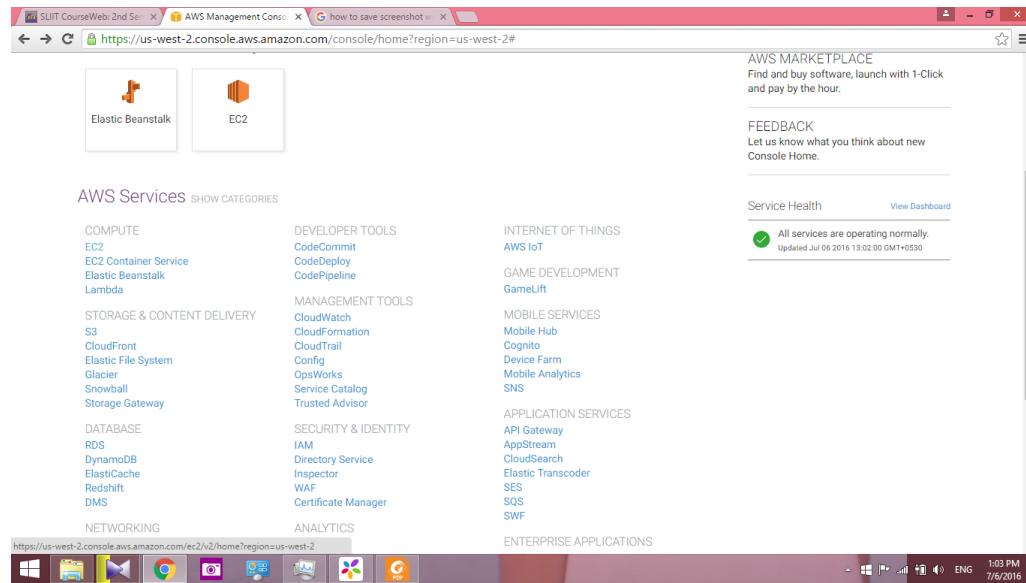
Wickramasundara D.G.T.K

IT13 0378 02

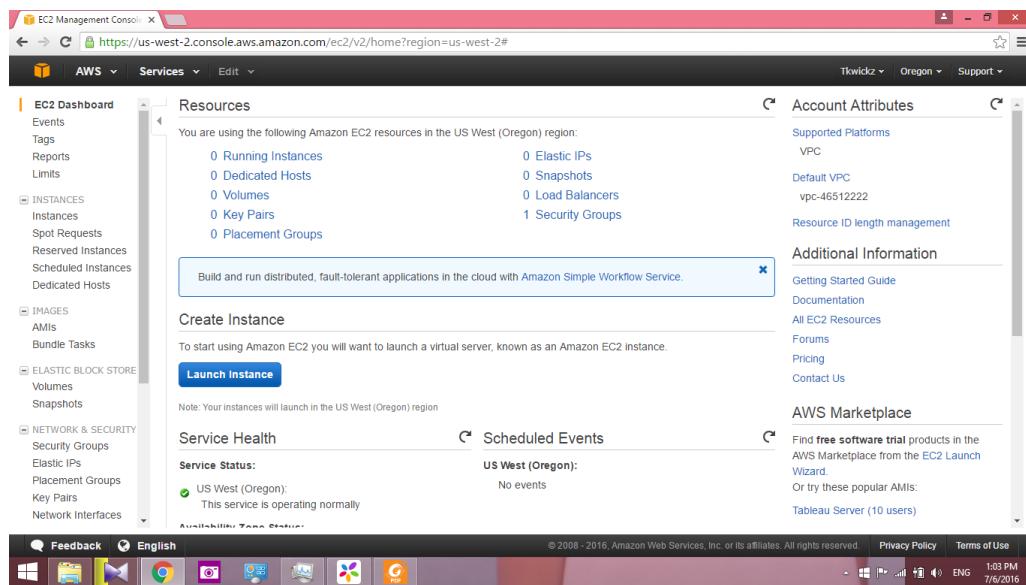
Weekdays

Log in to the AWS using your username and password. (For that it is needed an account AWS services)

1. There select EC2



2. There click "Launch Instance"



3. Since we want to create windows instance select below option(Microsoft windows Server 2012 R2 with SQL Server Express)

The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' section of the EC2 Management Console. It lists several AMI options:

- Ubuntu**: Ubuntu Server 14.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>). Root device type: ebs Virtualization type: hvm.
- Windows**: Microsoft Windows Server 2012 R2 Base - ami-8d0acfcd. Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]. Root device type: ebs Virtualization type: hvm.
- Amazon RDS**: Are you launching a database instance? Try Amazon RDS. Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database of your choice (MySQL, PostgreSQL, Oracle, SQL Server) in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database management tasks, freeing you up to focus on what's important to your business. [Launch a database using RDS](#)
- Microsoft Windows Server 2012 R2 with SQL Server Express**: ami-4817d228. Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture. Microsoft SQL Server 2016 Express edition. [English]. Root device type: ebs Virtualization type: hvm.

A large red oval surrounds the fourth item, 'Microsoft Windows Server 2012 R2 with SQL Server Express'.

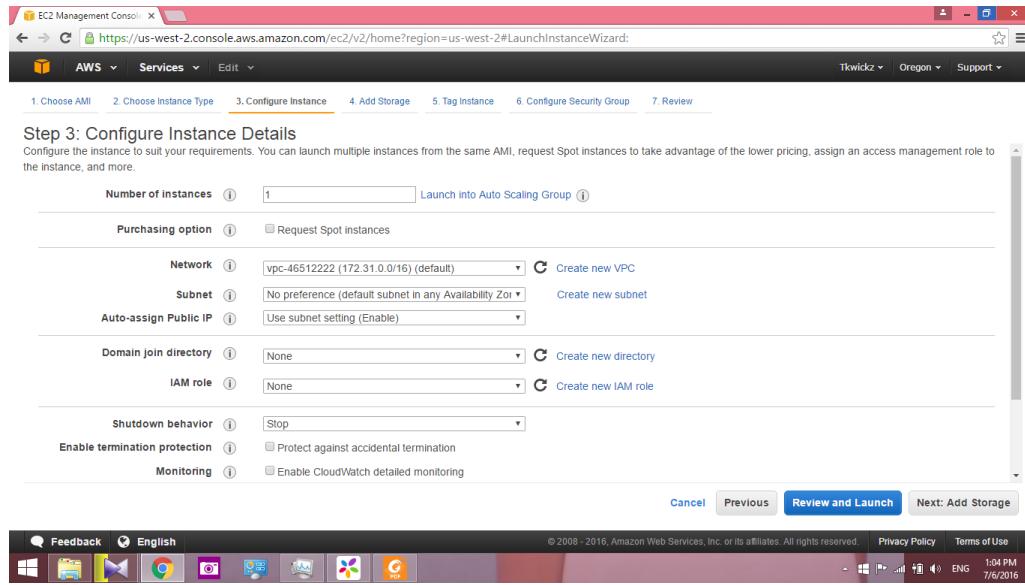
4. Select below option then click “**Next**” to configure instance details.

The screenshot shows the 'Step 2: Choose an Instance Type' section of the EC2 Management Console. It lists various instance types:

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	t2.micro <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
General purpose	m4.large	2	8	EBS only	Yes	Moderate

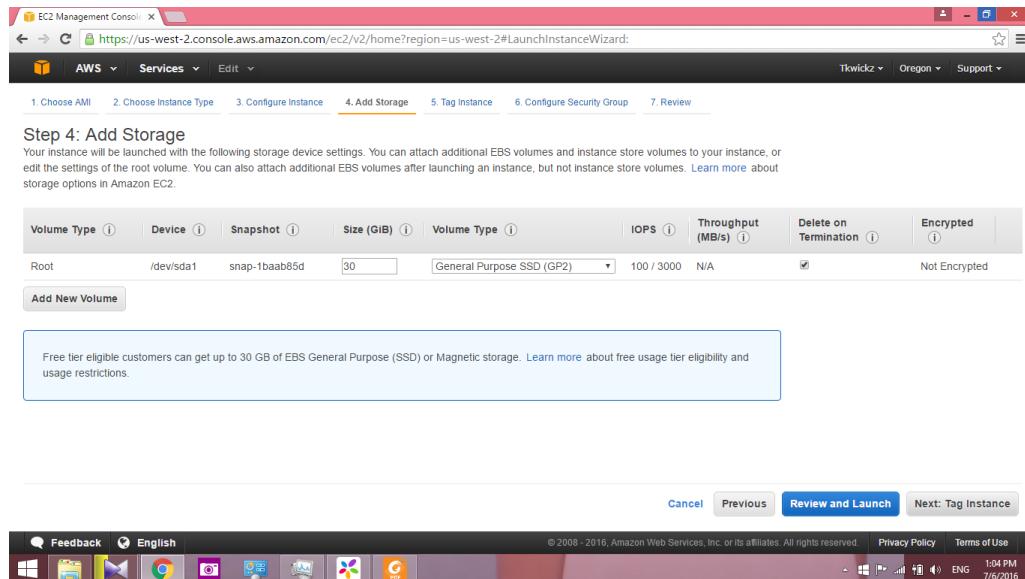
A large red oval surrounds the 't2.micro' row.

5. Here keep the default settings and click “**Next**” to add a storage.



6. Although here we use default settings with a storage size of 30GB we can add more by clicking “Add New Volume”.

Now click “**Review and Launch**” to proceed.



7. We can add a new security group or select existing security group. Here we use default one and click “Review and Launch”

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 name: launch-wizard-1
 Description: launch-wizard-1 created 2016-07-06T13:04:30.862+05:30

Type	Protocol	Port Range	Source
RDP	TCP	3389	Anywhere (0.0.0.0/0)

Add Rule

Warning
 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.

Cancel Previous Review and Launch

8. This window will be appeared

Step 7: Review Instance Launch

Please review your instance launch details. You can always change them later.

AMI Details

Microsoft Windows Server 2012 R2 Standard
 Free tier eligible
 Root Device Type: ebs
 Virtualization type: Microsoft Hyper-V

Instance Type

Instance Type	ECUs
t2 micro	Variable

Security Groups

My Dialog Long Term Event

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

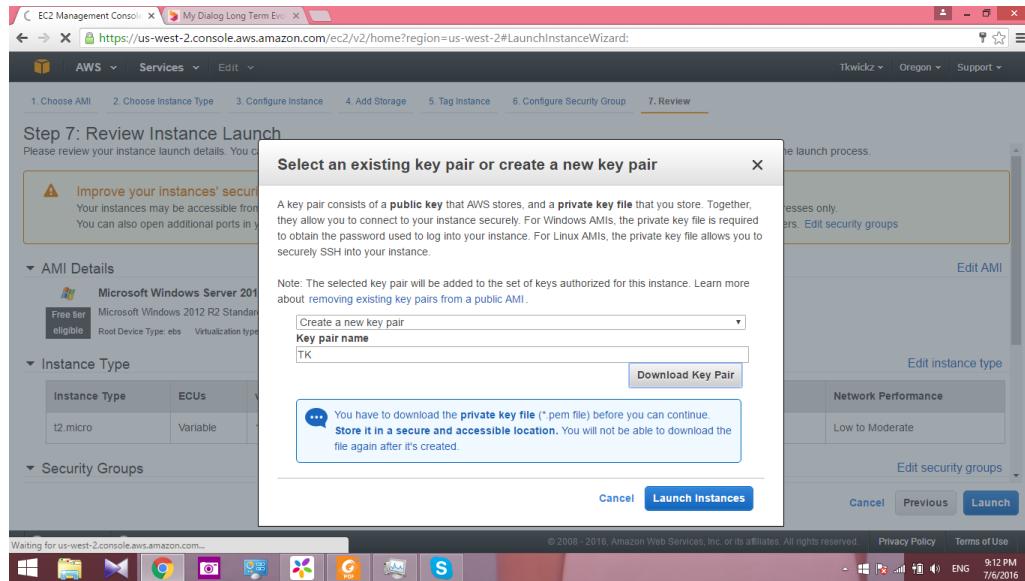
Choose an existing key pair
 Select a key pair
 No key pairs found

No key pairs found
 You don't have any key pairs. Please create a new key pair by selecting the [Create a new key pair](#) option above to continue.

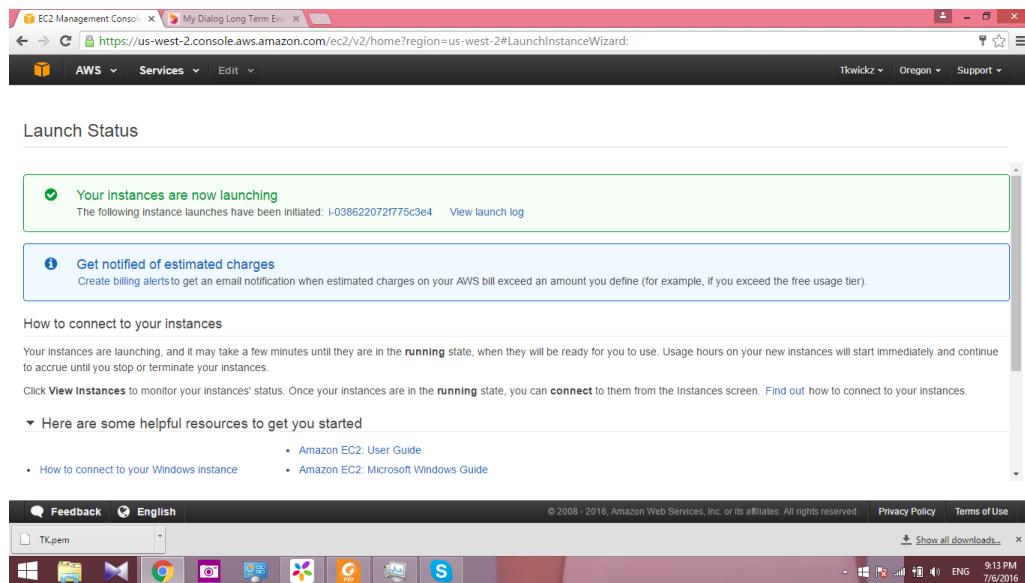
Cancel Launch Instances

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use 9:12 PM ENG 7/6/2016

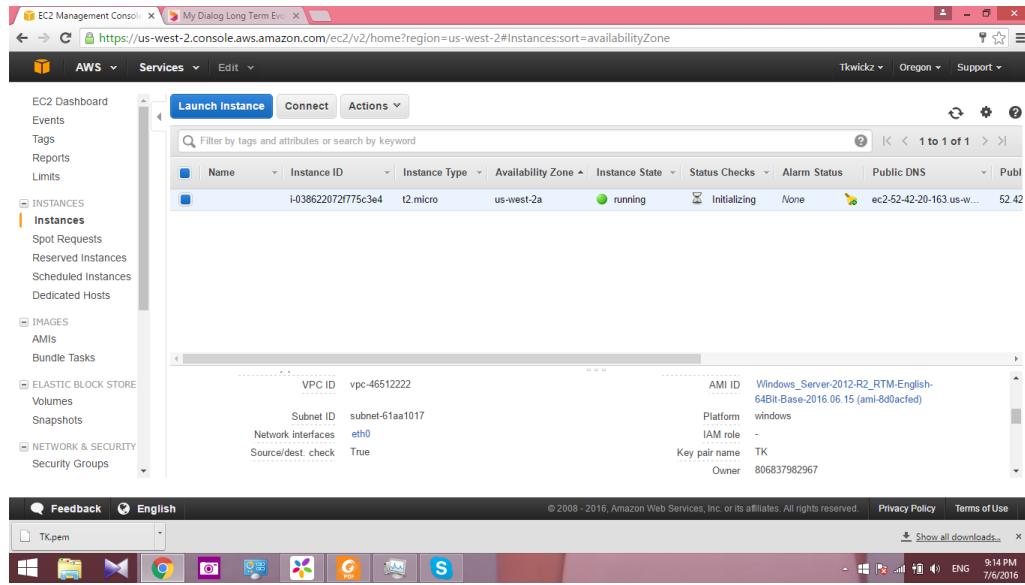
9. Select “Create a new key pair” and give a name to a key pair and click “Download Key Pair”. Once the download is completed click on “Launch instance”.



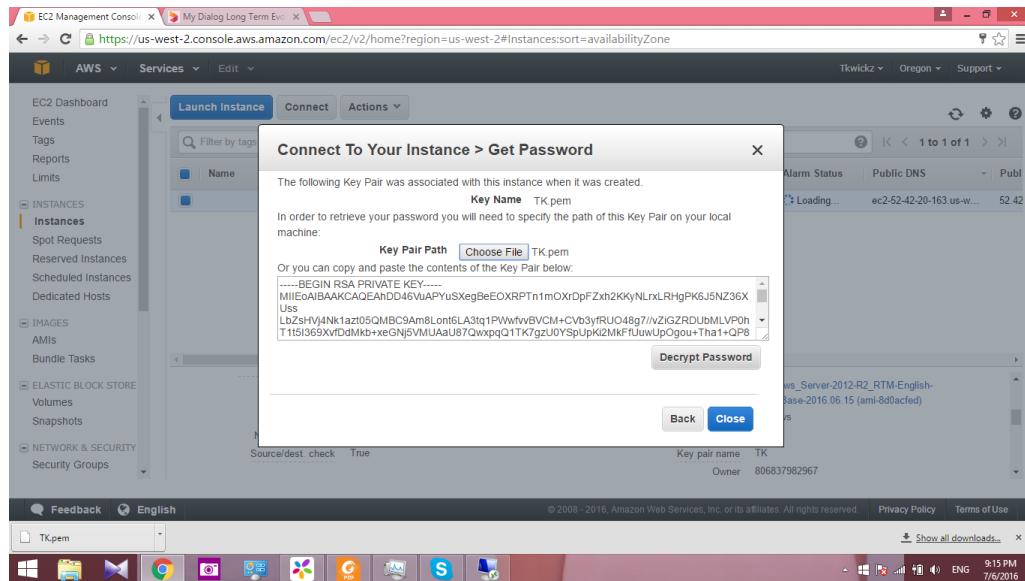
10. Then this window will be appeared. From below of the page there is a button “View Instance” clicks on it.



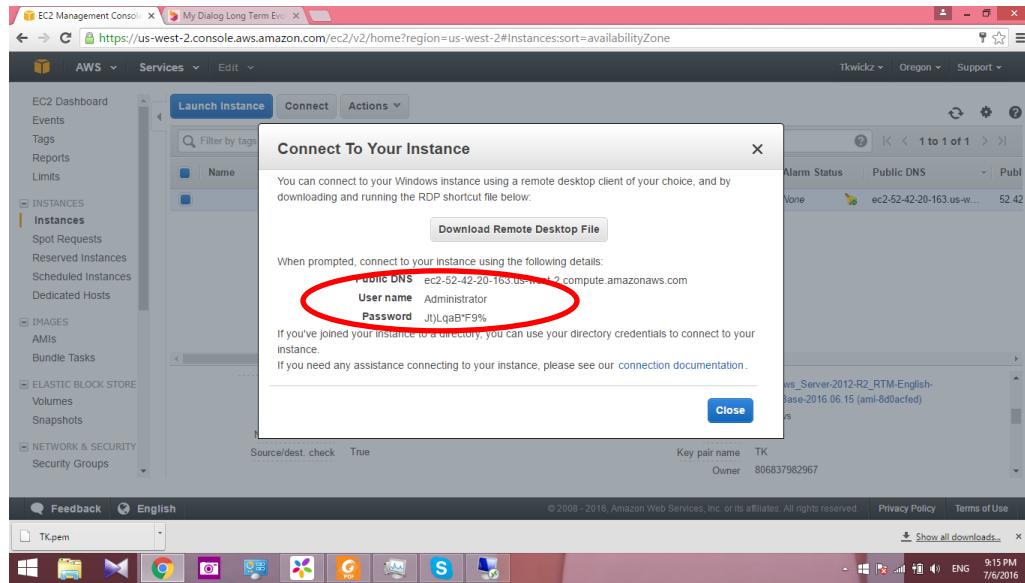
11. Now the instance has created. Then we should connect to the server. Click on “Connect”



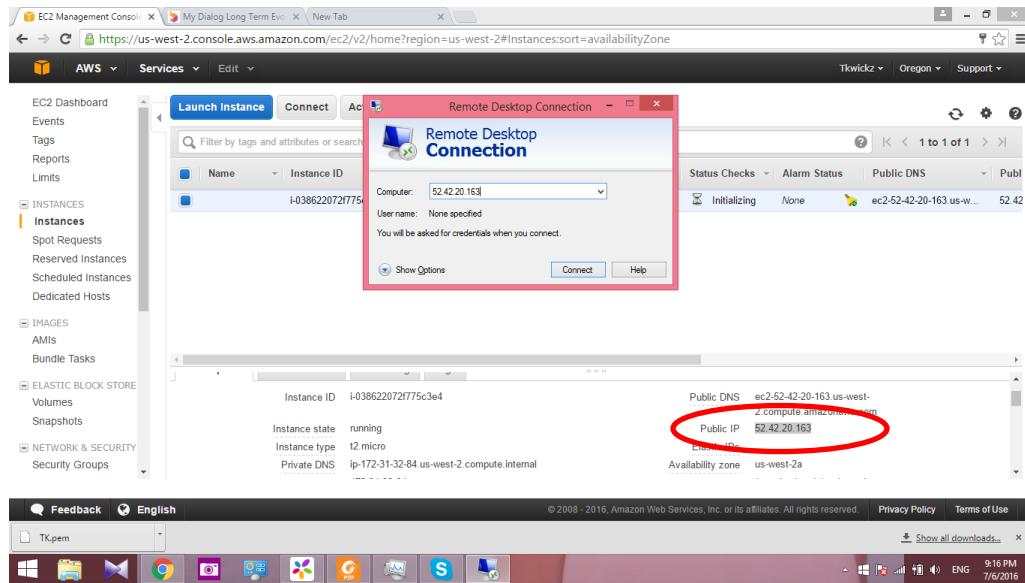
12. This window will be appeared. Select key pair file path from where you download it. It is saved with “.pem” extension. Now click “Decrypt Password”.



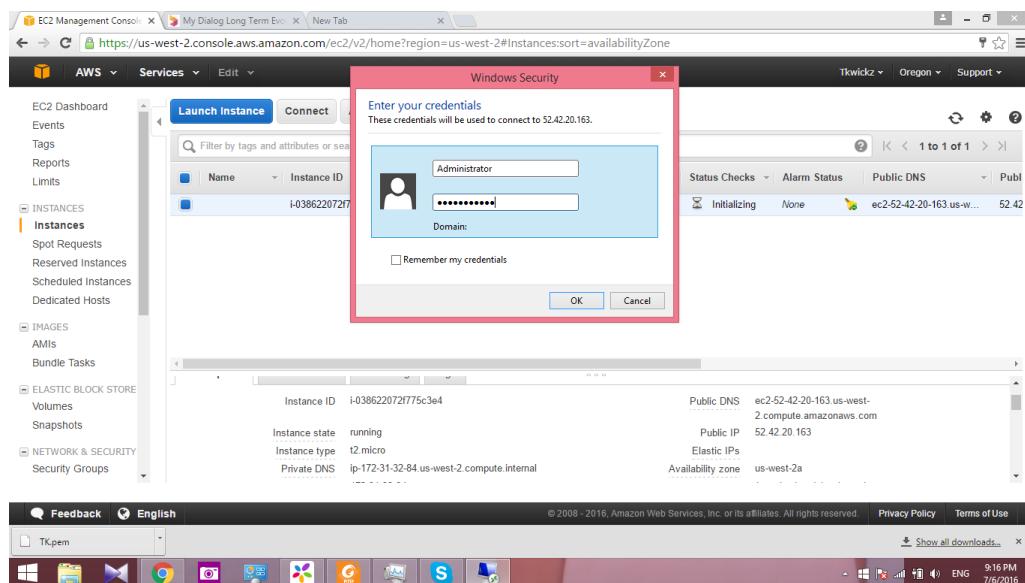
13. Here's the username and password that we have to use later. Clicks on "Close".



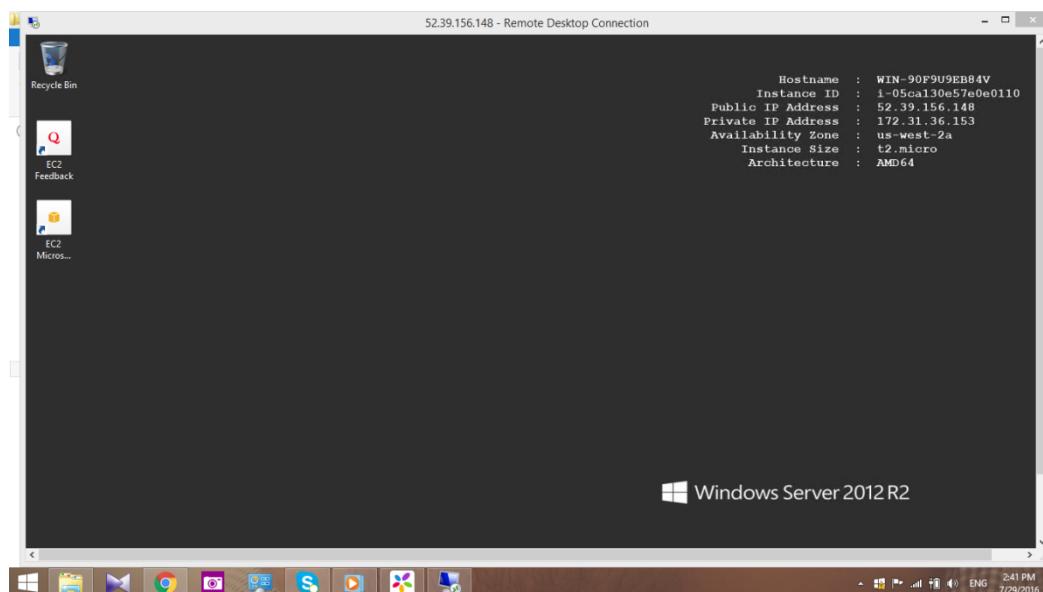
14. Open Remote Desktop Connection and enter the public IP.



15. Put username and the password and click “OK”



16. finally remote desktop will be appeared.



To create a linux instance

1. Select amazon linux option

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Free tier only ⓘ

Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611
The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.
Root device type: ebs Virtualization type: hvm
Select 64-bit

Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-775e4ff16
Red Hat Enterprise Linux version 7.2 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm
Select 64-bit

SUSE Linux Enterprise Server 12 SP1 (HVM), SSD Volume Type - ami-d2627db3
SUSE Linux Enterprise Server 12 Service Pack 1 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.
Root device type: ebs Virtualization type: hvm
Select 64-bit

Cancel and Exit

Feedback English © 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use 9:55 PM ENG 7/19/2016

2. Follow below step as before

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	t2.micro <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
General purpose	m4.large	2	8	EBS only	Yes	Moderate

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

Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611
Free tier eligible The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.
 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

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair
Key pair name
1111

You have to download the **private key file** (*.pem file) before you can continue.
Store it in a **secure and accessible location**. You will not be able to download the file again after it's created.

Cancel Launch Instances

Launch Status



Initiating Instance Launches

Please do not close your browser while this is loading

Creating security groups...

Your instances are now launching
The following instance launches have been initiated: i-0970ead7e648fa33a [View launch log](#)

Launch Status

Your instances are now launching

The following instance launches have been initiated: i-0970ead7e648fa33a [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
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- 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... 9:57 PM 7/19/2016

EC2 Management Console https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:

Tkwickz Oregon Support

The screenshot shows the AWS EC2 Management Console interface. The top window is titled "Launch Status" and contains information about launching instances, including how to connect and helpful resources. The bottom window is titled "Instances" and shows a list of instances, with one instance currently selected.

Launch Status

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
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- 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](#)

Instances

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Public IP
	i-0970ead7e648fa33a	t2.micro	us-west-2b	Pending	Initializing	None	-	172.31.19.81

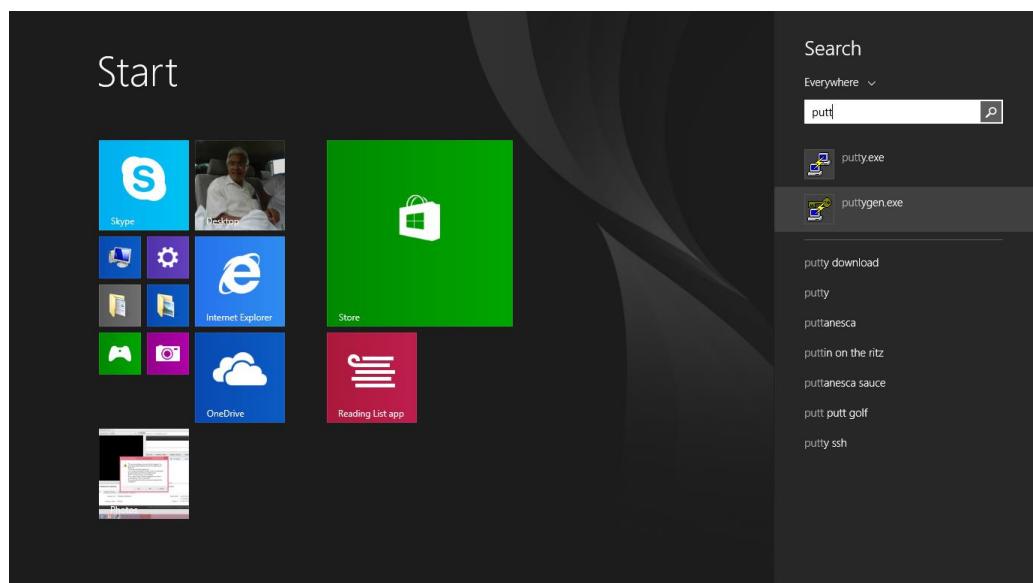
Description

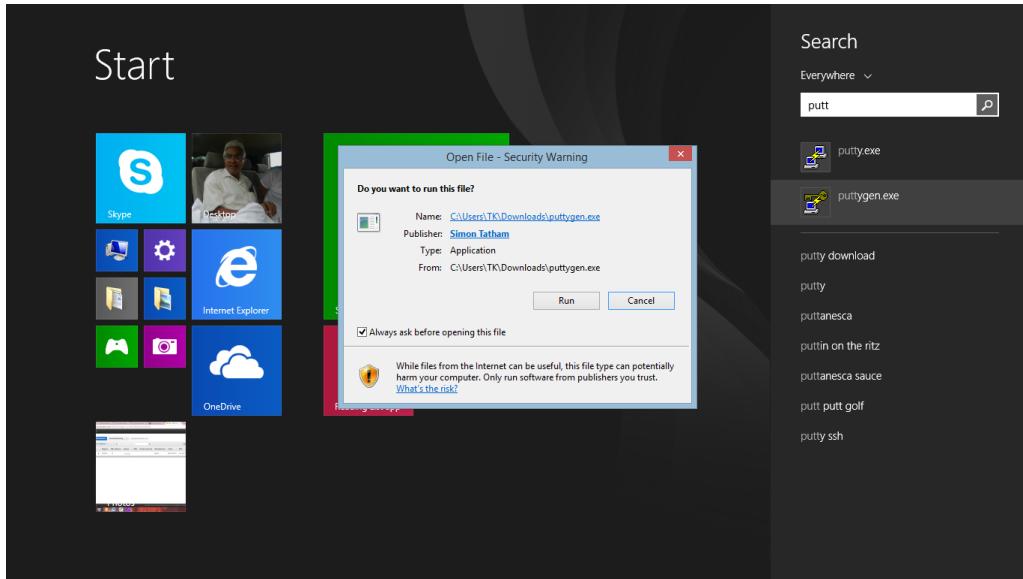
Instance ID: i-0970ead7e648fa33a	Private IP: 172.31.19.81
Status Checks	
Instance ID	i-0970ead7e648fa33a
Instance state	Pending
Instance type	t2.micro
Public DNS -	
Public IP	
Elastic IPs	

3. Now linux instance has created.

The screenshot shows the AWS EC2 Management Console interface. On the left, there's a navigation sidebar with options like EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Spot Requests, Reserved Instances, Scheduled Instances, Dedicated Hosts, Images (AMIs), Bundle Tasks, Elastic Block Store (Volumes, Snapshots), and Network & Security (Security Groups). The main content area displays a table of instances. One instance is listed: i-0970ead7e648fa33a, t2.micro, us-west-2b, running, Initializing, None, ec2-52-42-97-149.us-west-2.compute.amazonaws.com, 52.42.97.149. Below the table, detailed information for this instance is shown: Instance ID (i-0970ead7e648fa33a), Instance state (running), Instance type (t2.micro), Private DNS (ip-172-31-19-81.us-west-2.compute.internal), Private IPs (172.31.19.81), Public DNS (ec2-52-42-97-149.us-west-2.compute.amazonaws.com), Public IP (52.42.97.149), Elastic IPs, Availability zone (us-west-2b), and Security groups (launch-wizard-5, view rules). At the bottom of the page, there are links for Feedback, English, and a download link for 1111.pem. The status bar at the bottom right shows 1000 PM and 7/19/2016.

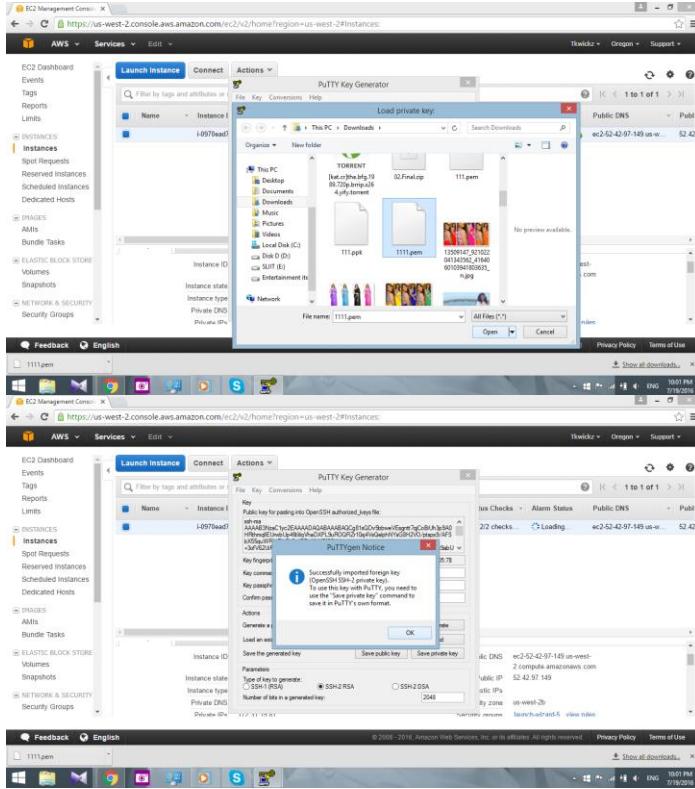
4. Now download the puttygen.exe and putty in order to connect to the instance.



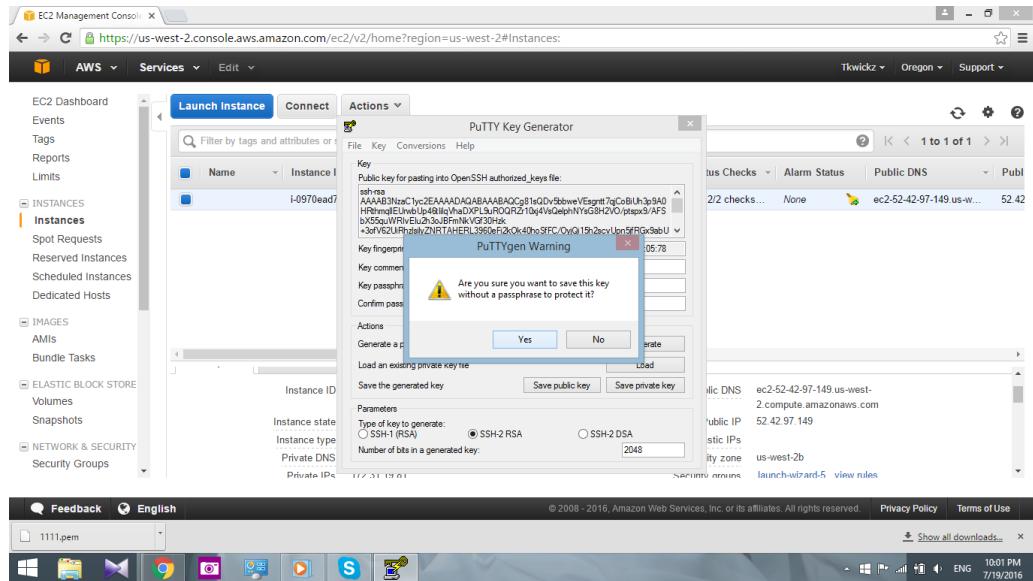


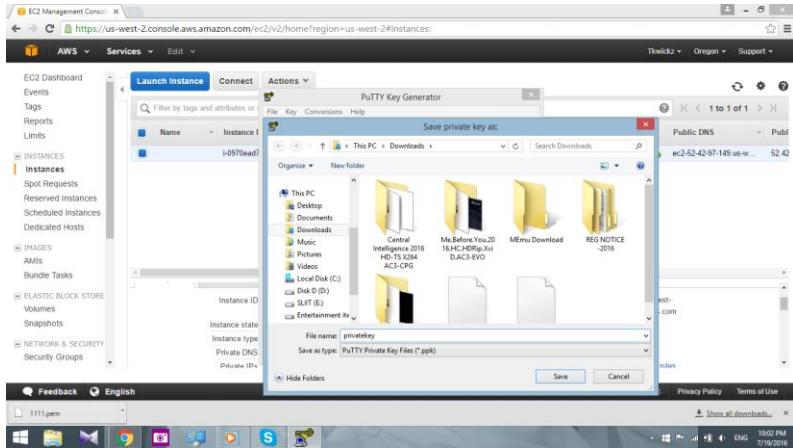
5. Load the .pem file to the puttygen

The screenshot shows the AWS EC2 Management Console. The main window displays a list of instances, with one instance named 'i-097ead7' selected. Overlaid on the center of the screen is the 'PuTTY Key Generator' dialog box. The dialog has tabs for File, Key, Conversions, and Help. The 'Key' tab is active, showing the message 'No key.' Under the 'Actions' section, there are buttons for 'Generate', 'Load', 'Save public key', and 'Save private key'. Parameters for generating a key are set to 'SSH-2 RSA' and 'Number of bits in a generated key: 2048'. At the bottom of the dialog, it says 'Actions' and 'File'.

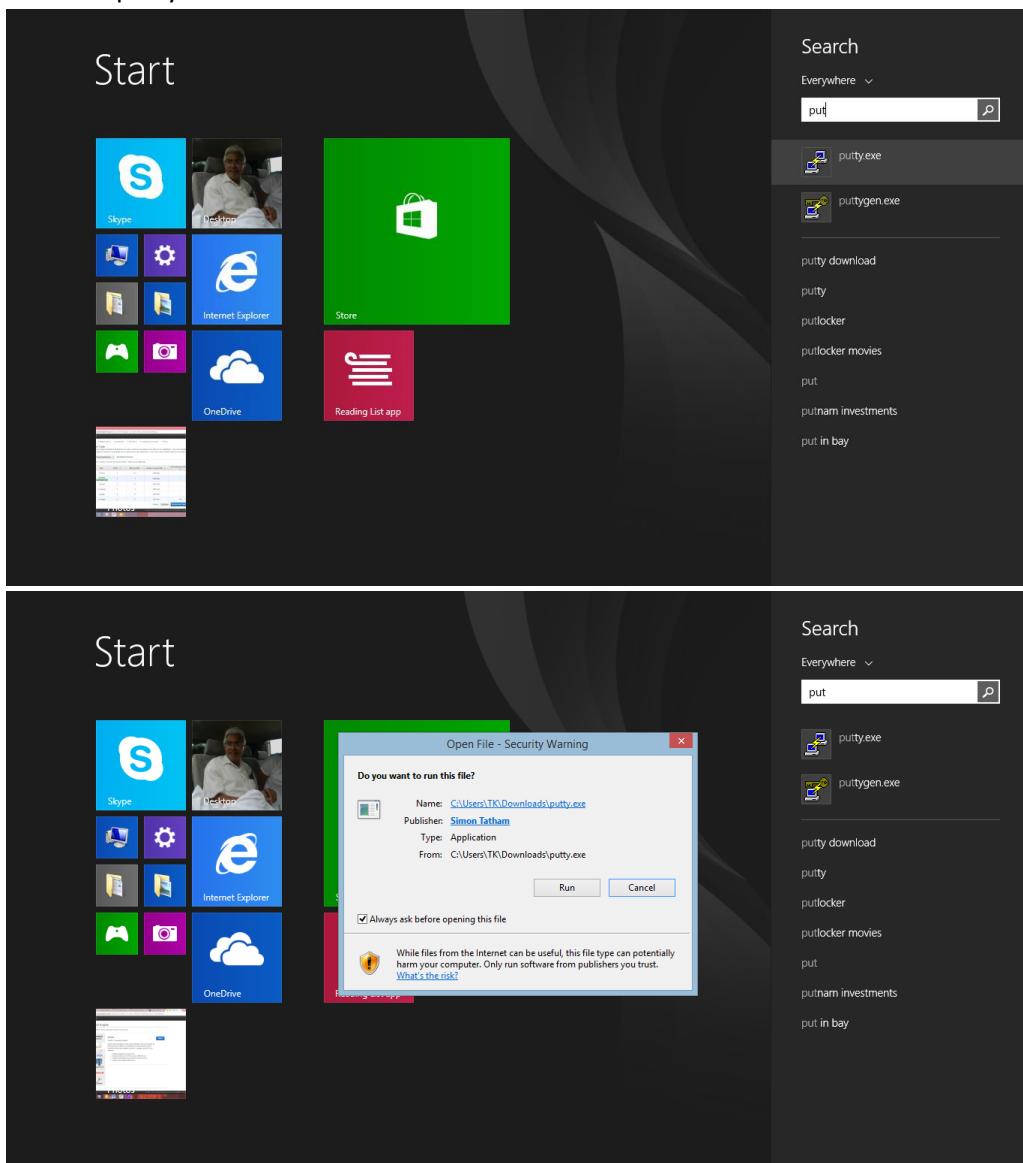


6. And save the private key

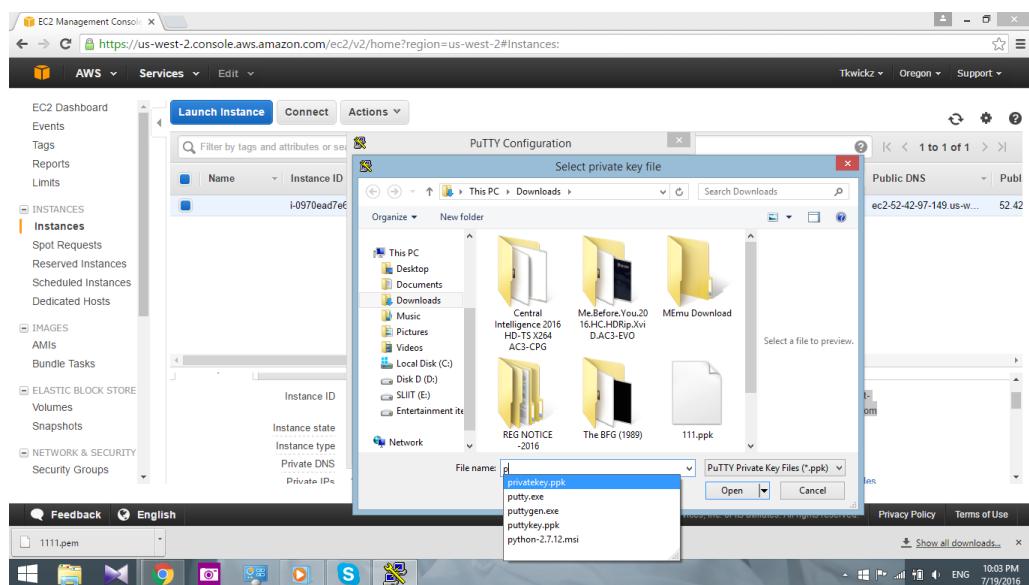
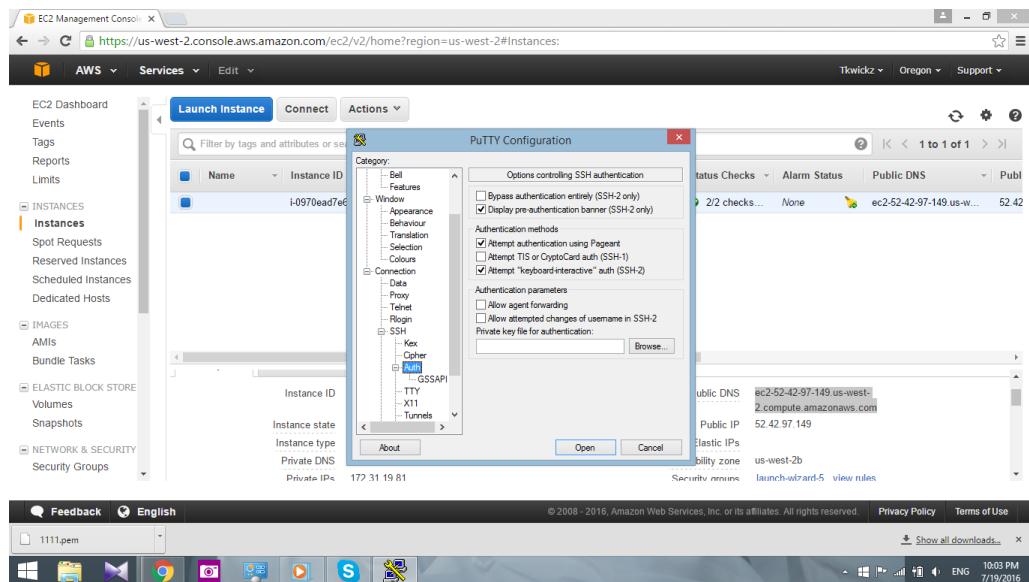




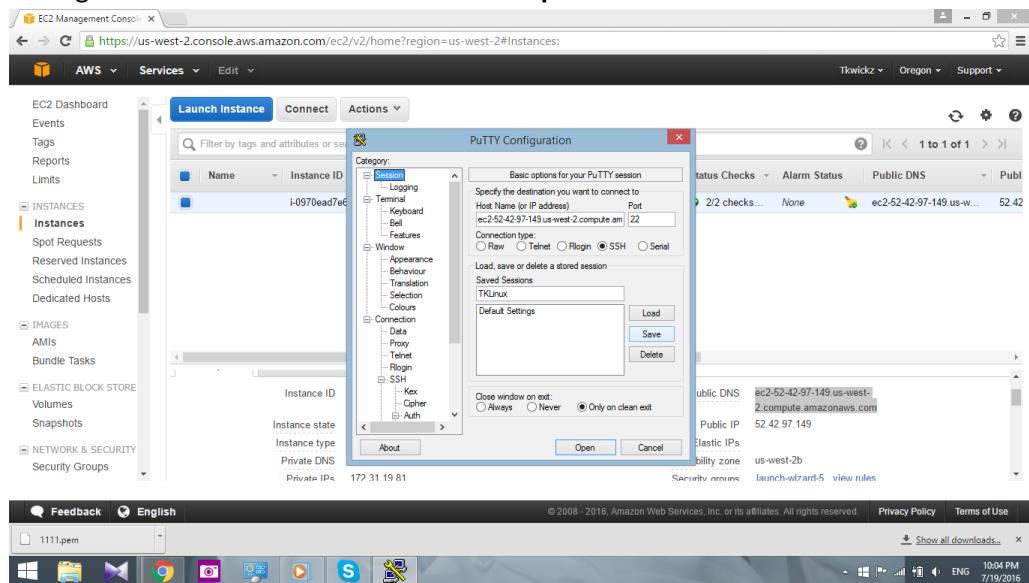
7. Now run putty.exe



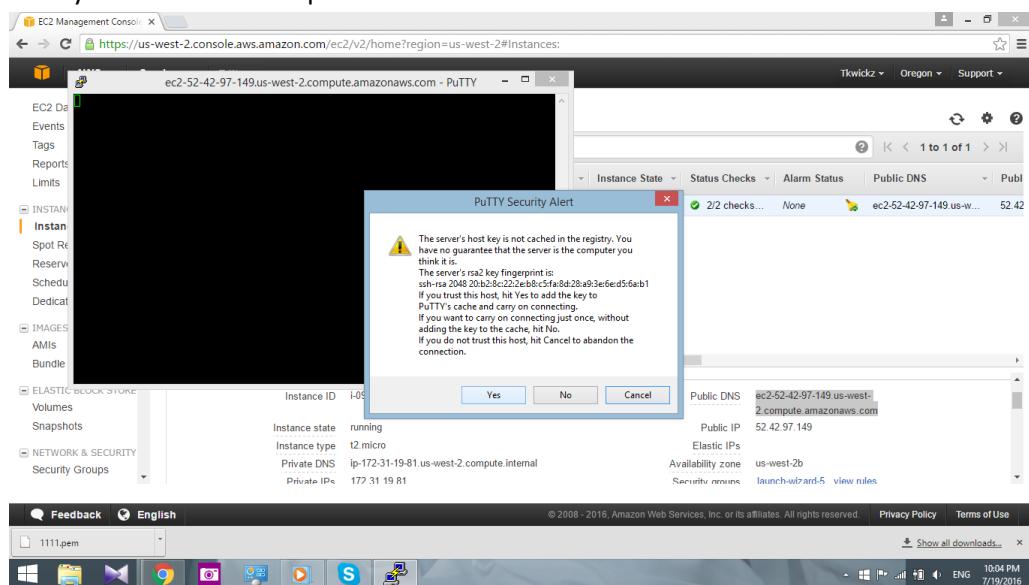
8. There go to 'Connection' → 'SSH' → 'Auth'. There "Browse" the location of the privatekey and select it.

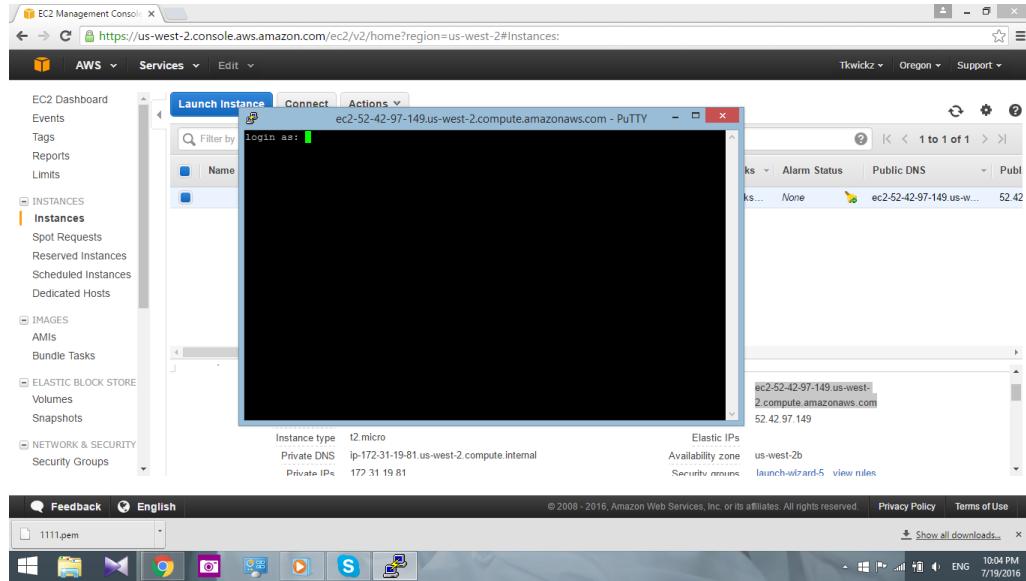


9. Then go to 'Session' and save it then click "Open".



10. Finally this window will open.





11. Now we can log in as ec2-user

