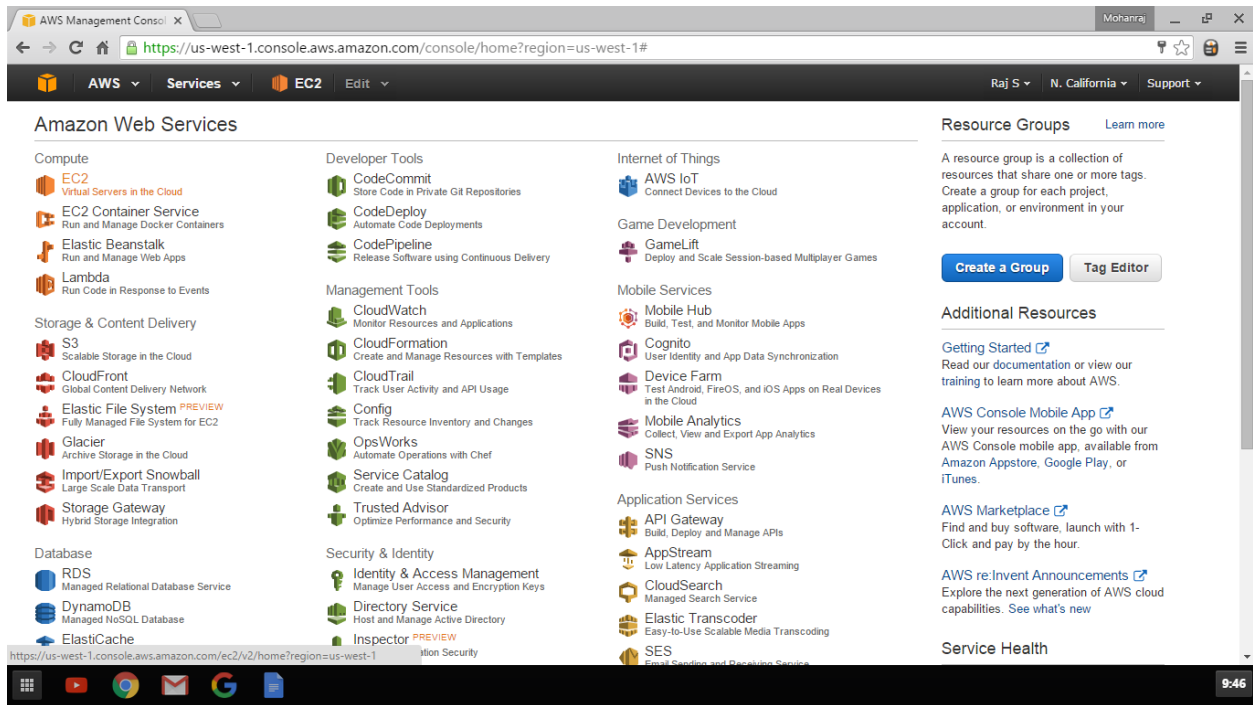


Lab-2 Access Cloud VMs

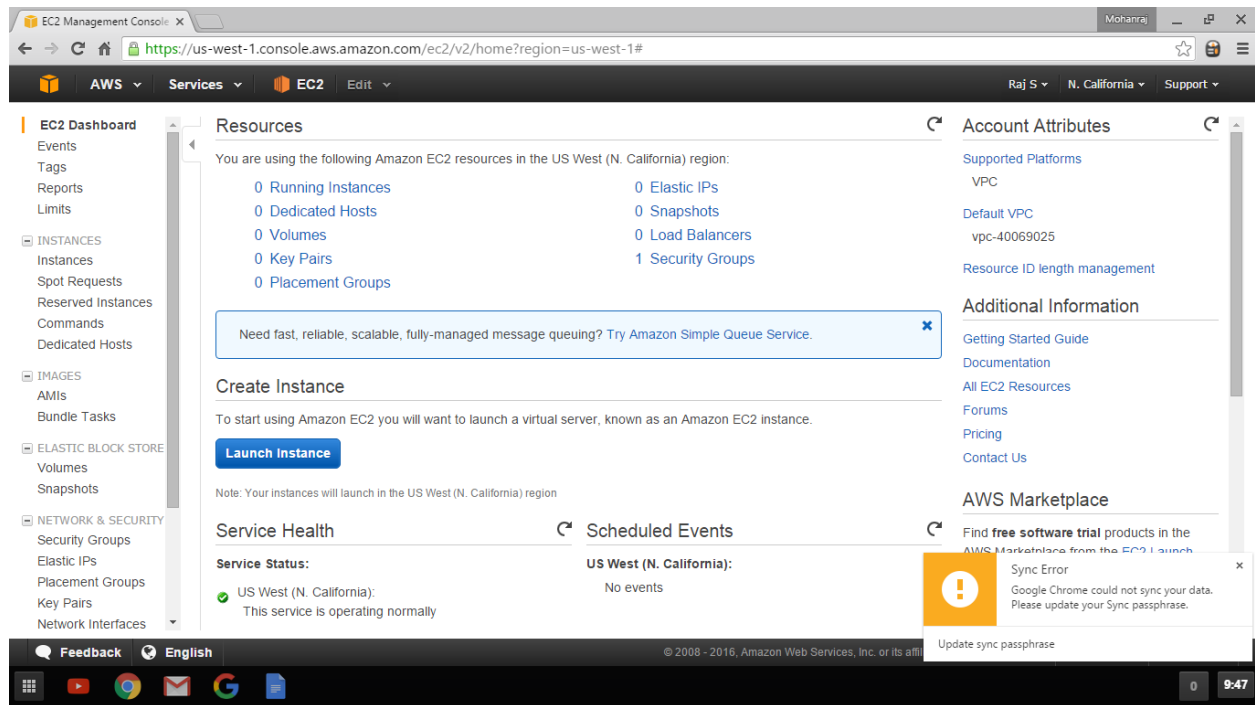
Login in to AWS Console

<https://console.aws.amazon.com/console/home>

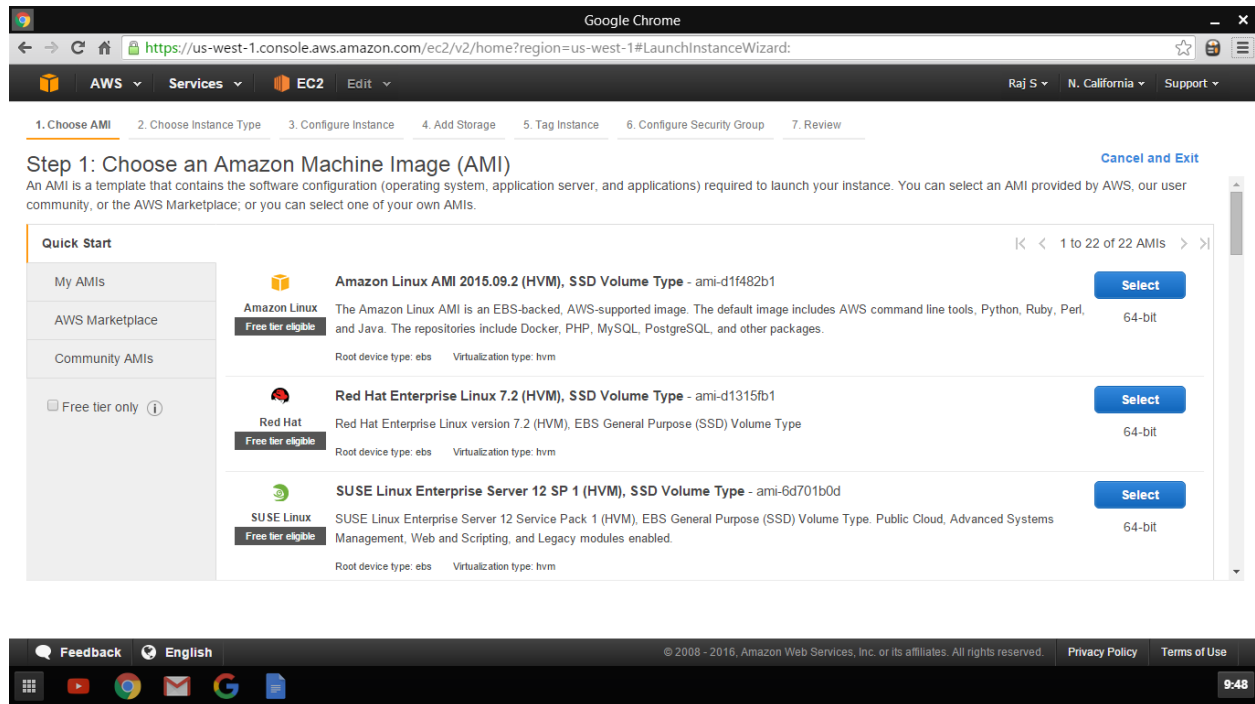
Click EC2 to create Instance or VM



Click Launch Instance



Select Amazon Linux AMI



Choose T2.Micro and click Review and Launch

Google Chrome

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

AWS Services EC2 Edit

Raj S N. California Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review

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.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

| | Family | Type | vCPUs | Memory (GiB) | Instance Storage (GB) | EBS-Optimized Available | Network Performance |
|-------------------------------------|-----------------|--------------------------------|-------|--------------|-----------------------|-------------------------|---------------------|
| <input type="checkbox"/> | General purpose | t2.nano | 1 | 0.5 | EBS only | - | Low to Moderate |
| <input checked="" type="checkbox"/> | General purpose | t2.micro Free tier eligible | 1 | 1 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | t2.small | 1 | 2 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | t2.medium | 2 | 4 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | t2.large | 2 | 8 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | m4.large | 2 | 8 | EBS only | Yes | Moderate |

Cancel Previous Review and Launch Next: Configure Instance Details

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Click Launch in Review Screen

EC2 Management Console X Mohanraj

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

AWS Services EC2 Edit

Raj S N. California Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review

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.

⚠ Improve your instances' security. Your security group, launch-wizard-1, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details [Edit AMI](#)

Amazon Linux AMI 2015.09.2 (HVM), SSD Volume Type - ami-d1f482b1

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 [Edit instance type](#)

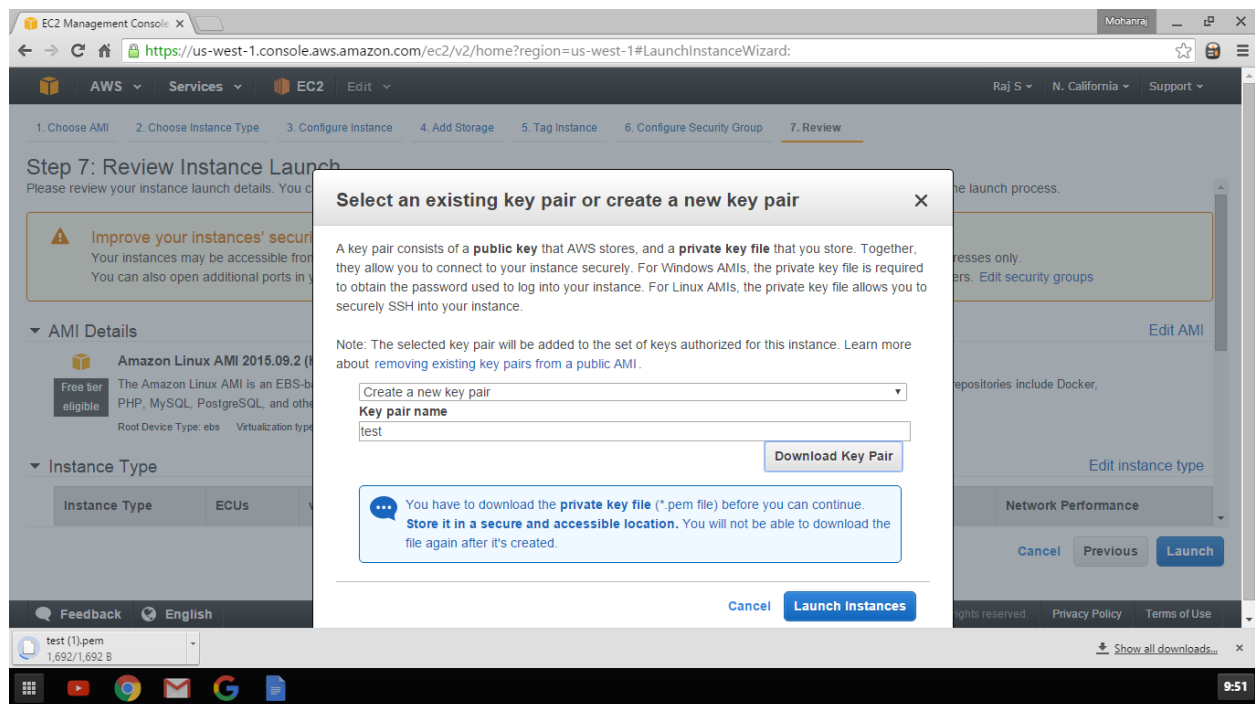
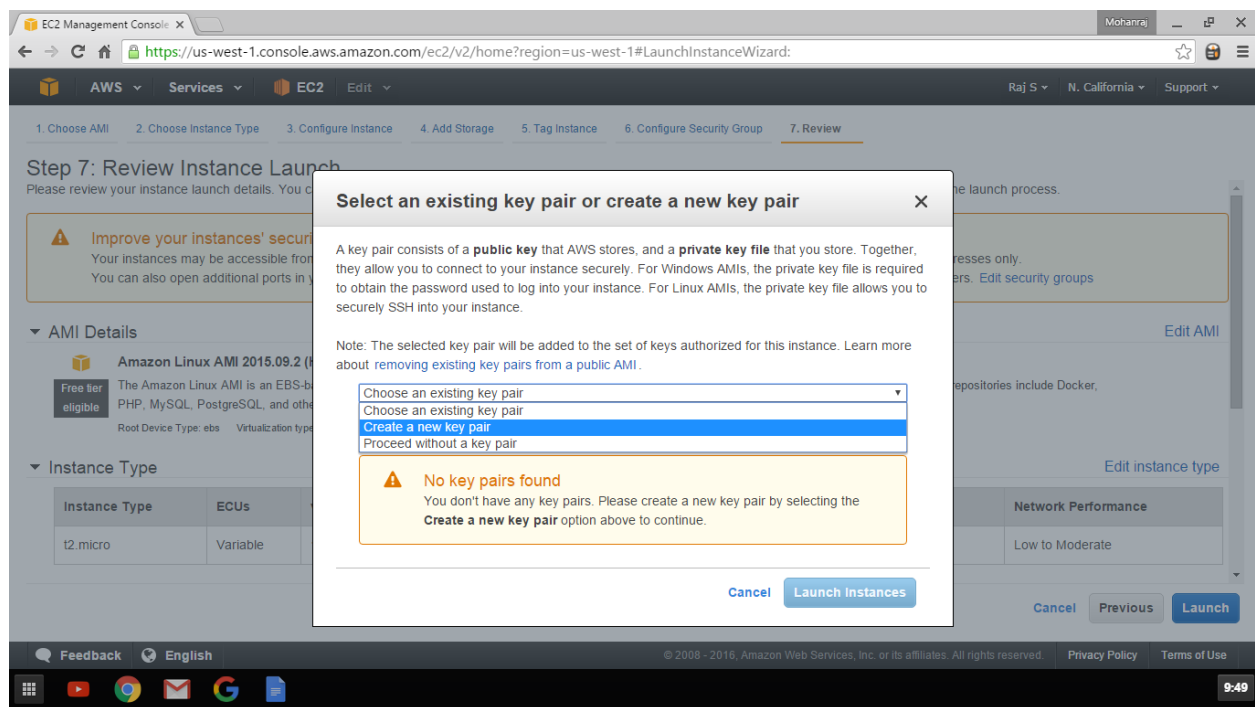
| Instance Type | ECUs | vCPUs | Memory (GiB) | Instance Storage (GB) | EBS-Optimized Available | Network Performance |
|---------------|----------|-------|--------------|-----------------------|-------------------------|---------------------|
| t2.micro | Variable | 1 | 1 | EBS only | - | Low to Moderate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

Cancel Previous **Launch**

[Define key pair and launch](#)

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Choose Create New Key Pair and provide Name and Download Keys



Click view instance Id i-xxxxxxx to take you EC2 Console

EC2 Management Console

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

AWS Services EC2 Edit

Raj S N. California Support

Launch Status

✓ **Your instances are now launching**

The following instance launches have been initiated: i-ca2fde7f1 [View launch log](#)

ℹ **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

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test (1).pem [Show all downloads...](#)

9:51

Click Connect tab to find the Options to connect

EC2 Management Console

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#Instances:search=i-ca2fde7f;sort=instanceId

AWS Services EC2 Edit

Raj S N. California Support

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Spot Requests

Reserved Instances

Commands

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

NETWORK & SECURITY

Security Groups

Launch Instance **Connect** **Actions**

search : i-ca2fde7f Add filter

| Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS | Public IP |
|------|-------------|---------------|-------------------|----------------|---------------|--------------|--------------------------|-----------|
| | i-ca2fde7f1 | t2.micro | us-west-1a | running | Initializing | None | ec2-52-53-215-231.us-... | 52.53 |

Instance: i-ca2fde7f Public DNS: ec2-52-53-215-231.us-west-1.compute.amazonaws.com

Description Status Checks Monitoring Tags

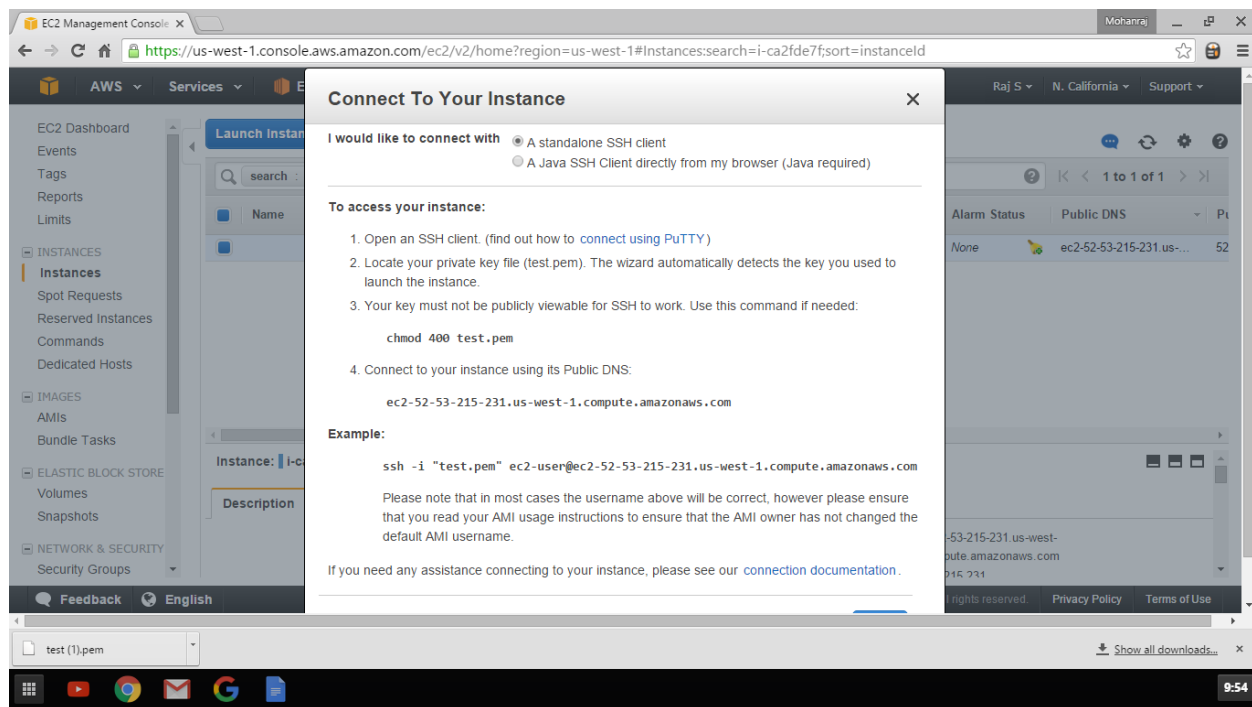
Instance ID i-ca2fde7f Public DNS ec2-52-53-215-231.us-west-1.compute.amazonaws.com Public IP 52.53.215.231

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test (1).pem [Show all downloads...](#)

9:53



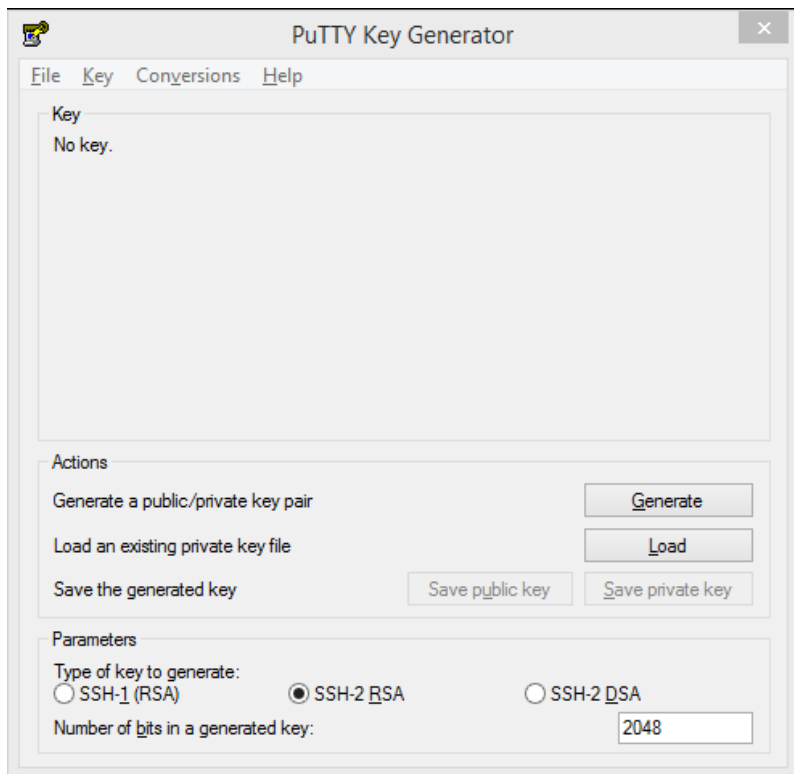
Connecting using Putty

Download Putty and PuttyGen from the below URL

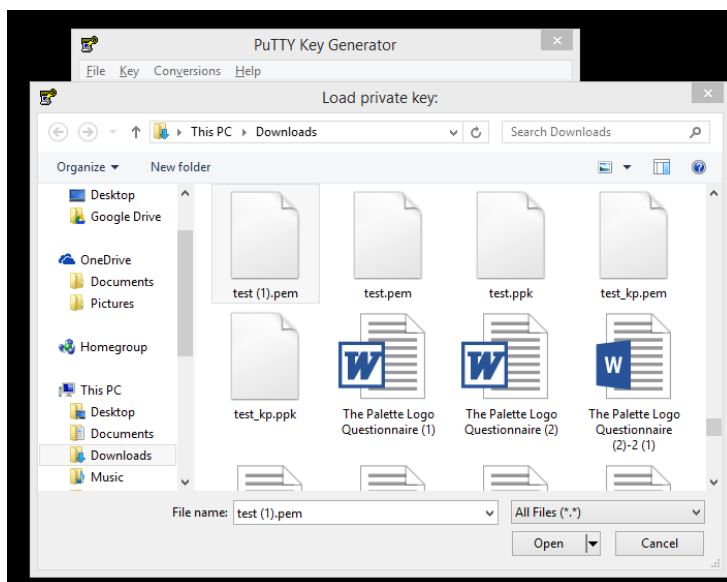
<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

Open PuttyGen

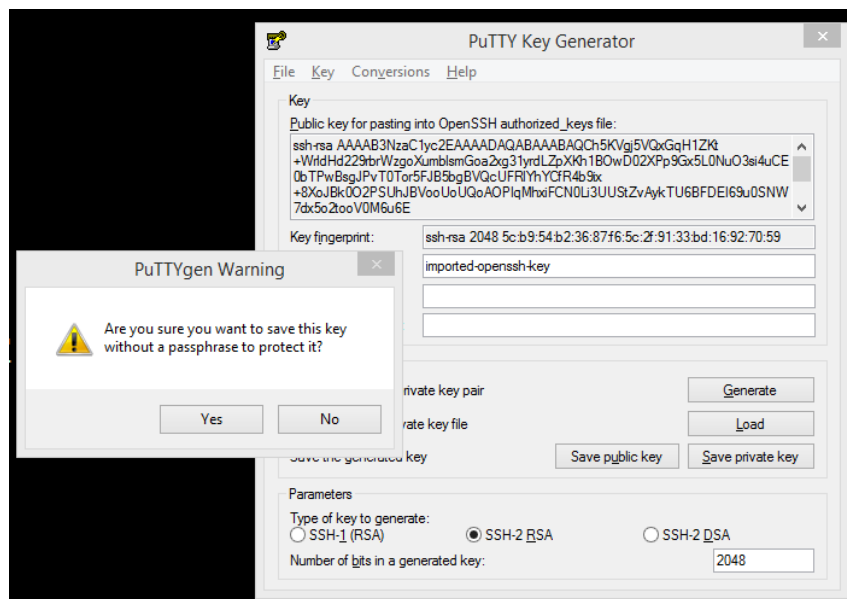
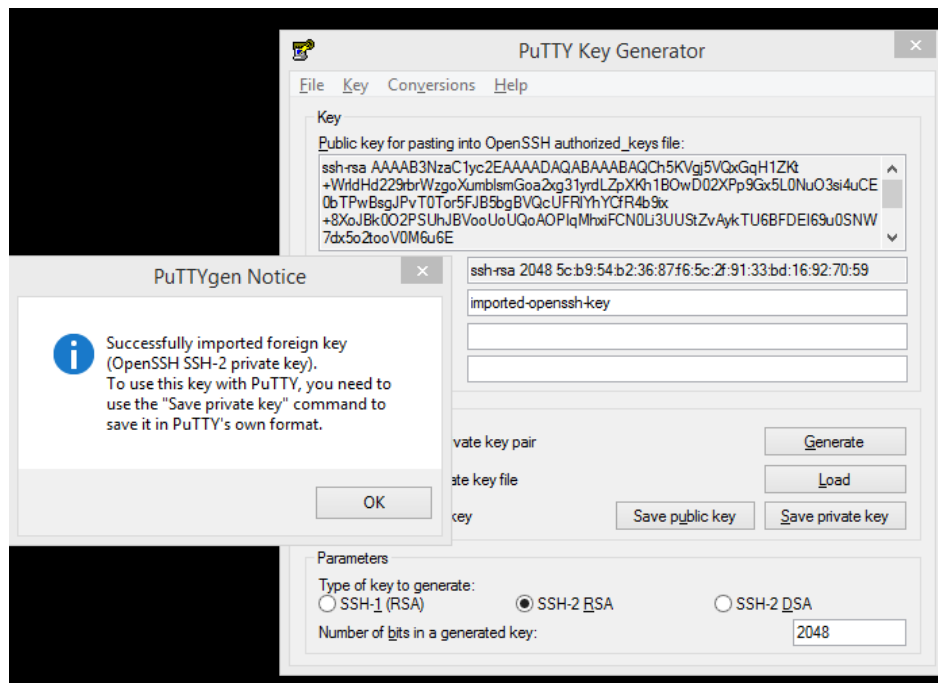
Open Putty Key Generator

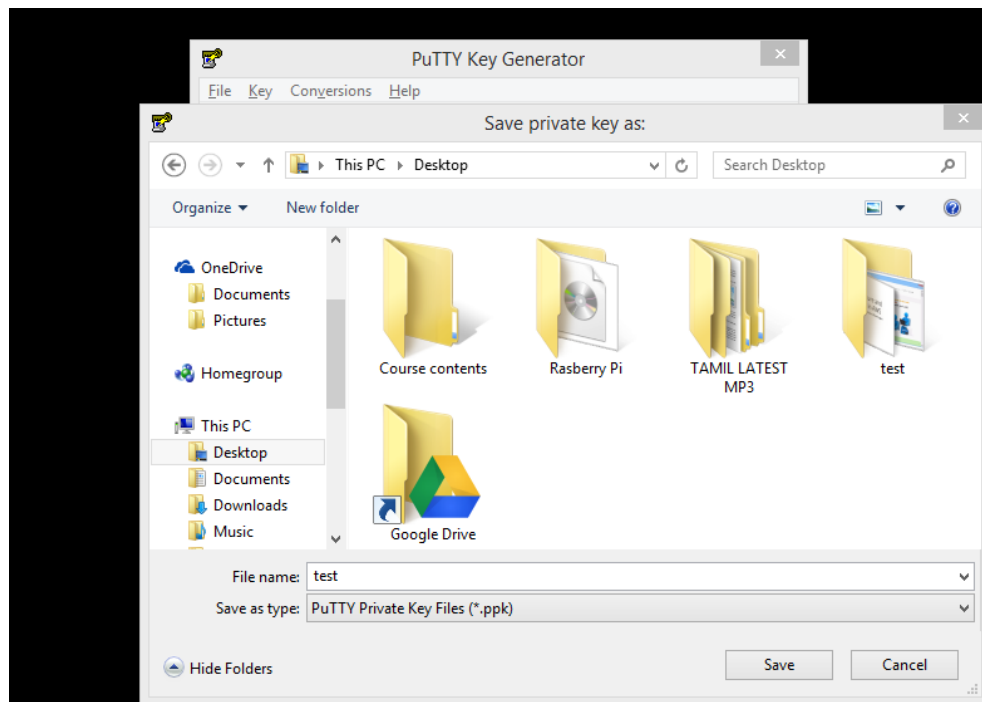


Click Load and load the PEM File downloaded while creating the Instance
Select All Files to show the .pem files

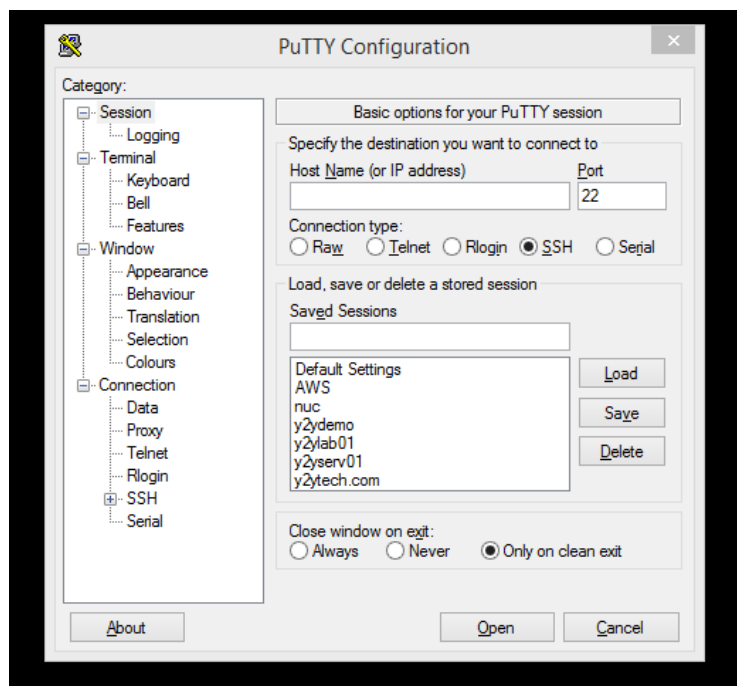


Use Save private key to Save it in PPK Format which Putty Understands

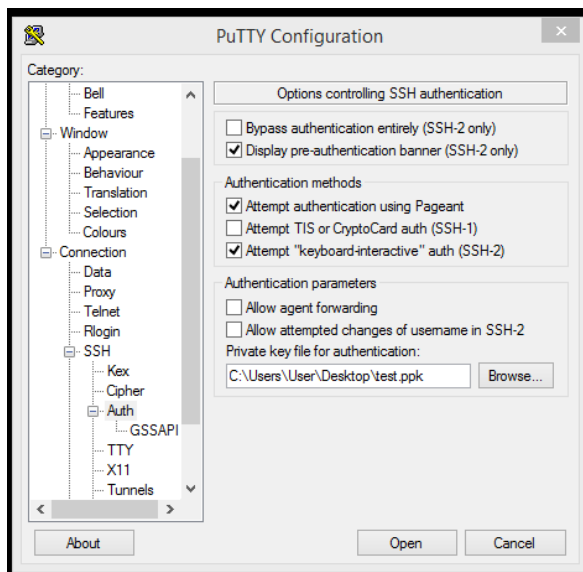
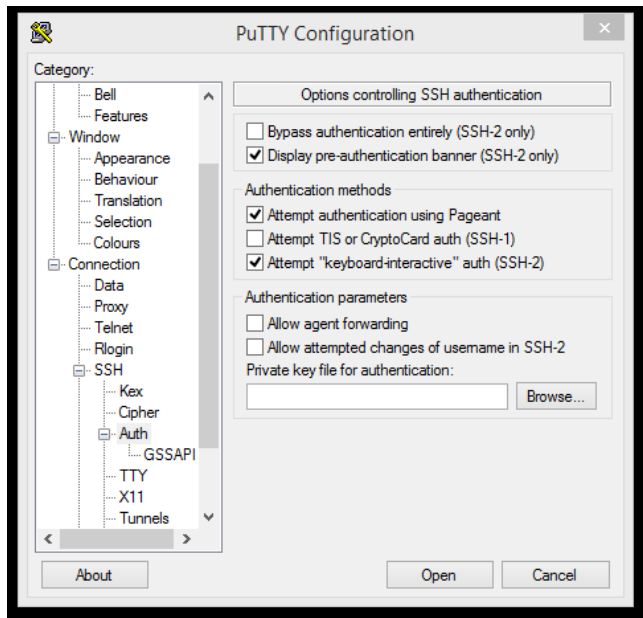




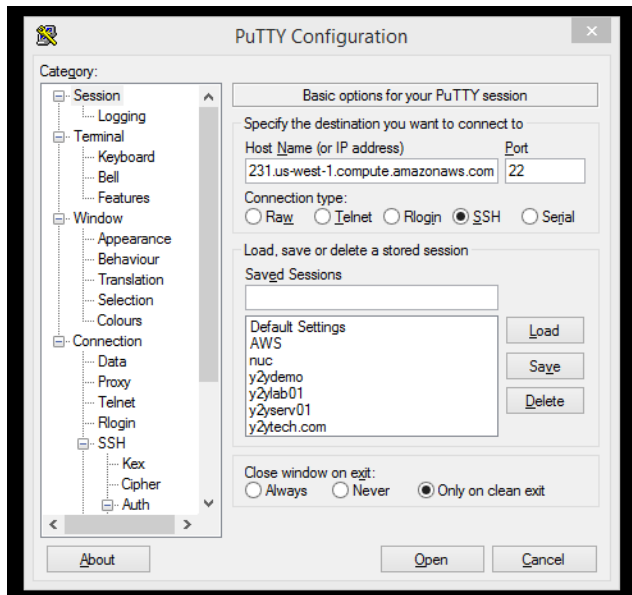
Open Putty



Click SSH-> Auth -> Choose the private key saved



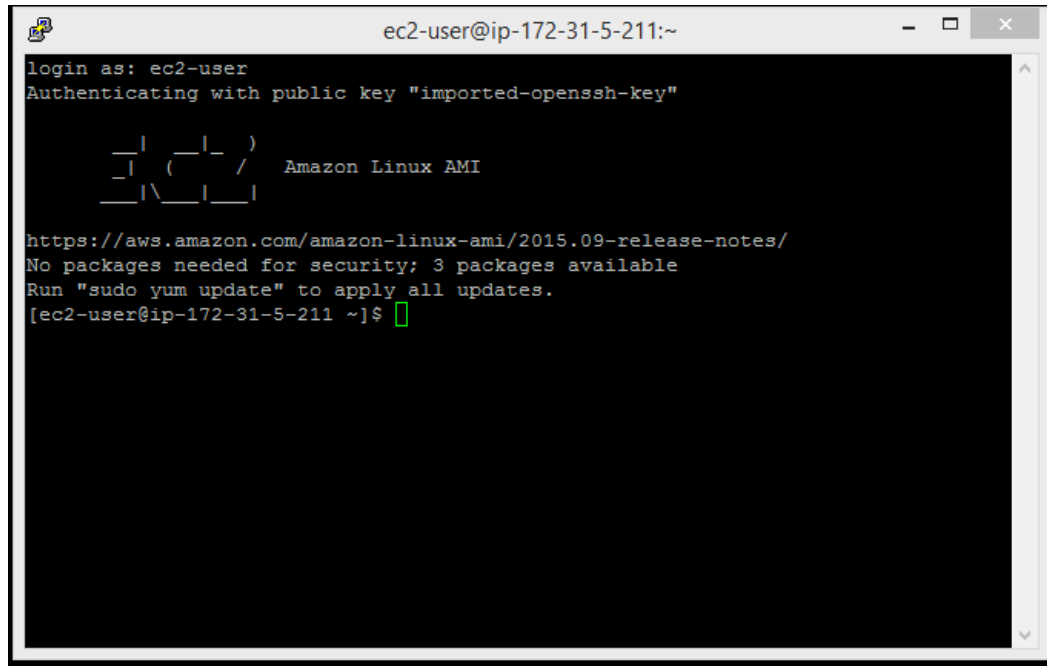
Go to session and Put the DNS name show in Connect Tab of AWS console



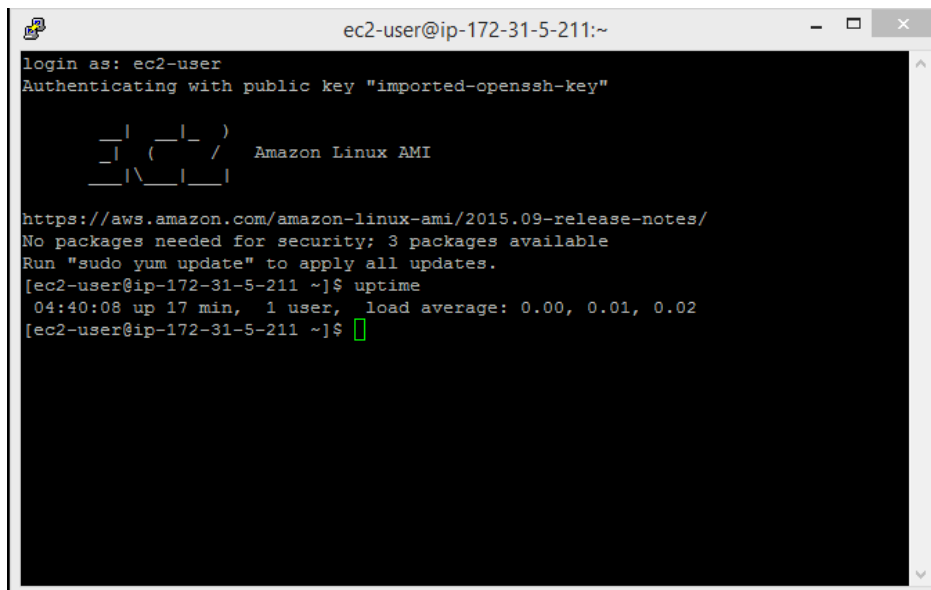
Enter ec2-user as User name



It connects to the VM Using Private Key instead of Passwords.

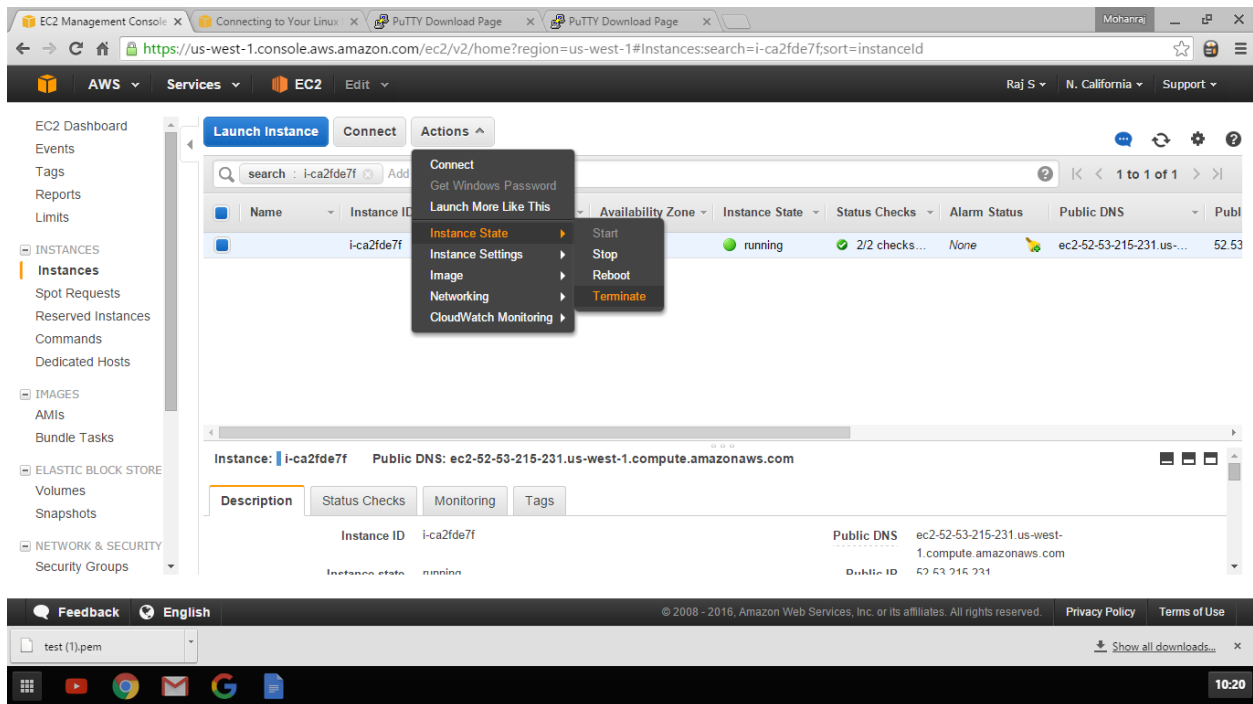


```
ec2-user@ip-172-31-5-211:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
  
  _| _|_ )  
  _| ( _| /  Amazon Linux AMI  
  __|\\__|__|  
  
https://aws.amazon.com/amazon-linux-ami/2015.09-release-notes/  
No packages needed for security; 3 packages available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-5-211 ~]$
```



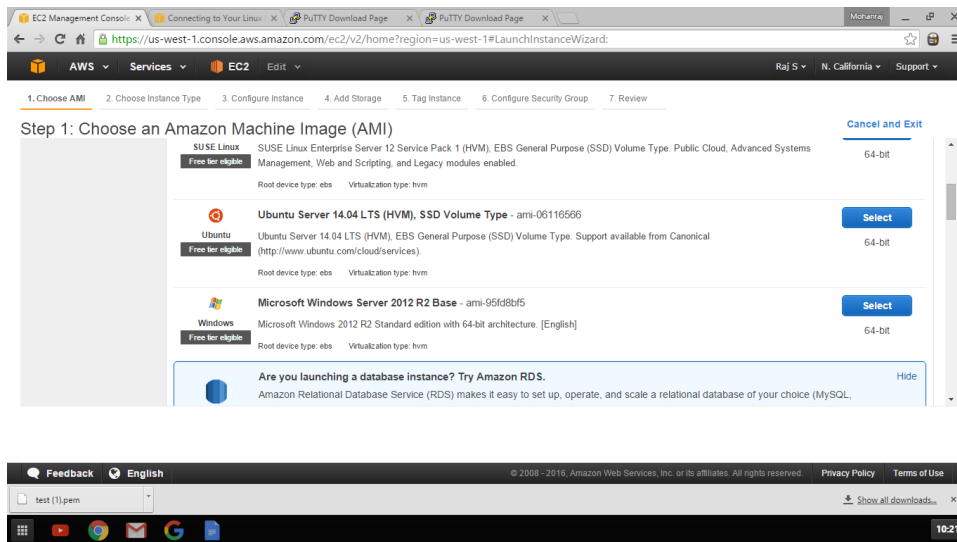
```
ec2-user@ip-172-31-5-211:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
  
  _| _|_ )  
  _| ( _| /  Amazon Linux AMI  
  __|\\__|__|  
  
https://aws.amazon.com/amazon-linux-ami/2015.09-release-notes/  
No packages needed for security; 3 packages available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-5-211 ~]$ uptime  
  04:40:08 up 17 min,  1 user,  load average: 0.00, 0.01, 0.02  
[ec2-user@ip-172-31-5-211 ~]$
```

Terminate the VM



Access Windows VM

Launch Instances and Choose Windows 2012 R2



Choose t2.micro instance and click review and launch

EC2 Management Console - X Connecting to Your Linux X PuTTY Download Page X PuTTY Download Page X Mohamra

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

AWS Services EC2 Edit Raj S N. California Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review

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.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

| | Family | Type | vCPUs | Memory (GiB) | Instance Storage (GiB) | EBS-Optimized Available | Network Performance |
|-------------------------------------|-----------------|---|-------|--------------|------------------------|-------------------------|---------------------|
| <input type="checkbox"/> | General purpose | t2.nano | 1 | 0.5 | EBS only | - | Low to Moderate |
| <input checked="" type="checkbox"/> | General purpose | t2.micro <small>Free tier eligible</small> | 1 | 1 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | t2.small | 1 | 2 | EBS only | - | Low to Moderate |
| <input type="checkbox"/> | General purpose | t2.medium | 2 | 4 | EBS only | - | Low to Moderate |

Cancel Previous Review and Launch Next: Configure Instance Details

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test (1).pem Show all downloads... 10:22

Click Launch on review page

EC2 Management Console - X Connecting to Your Linux X PuTTY Download Page X PuTTY Download Page X Mohamra

https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#LaunchInstanceWizard:

AWS Services EC2 Edit Raj S N. California Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review

Step 7: Review Instance Launch

AMI Details [Edit AMI](#)

Microsoft Windows Server 2012 R2 Base - ami-95fd8bf5
Free tier eligible Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]
Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

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

Security Groups [Edit security groups](#)

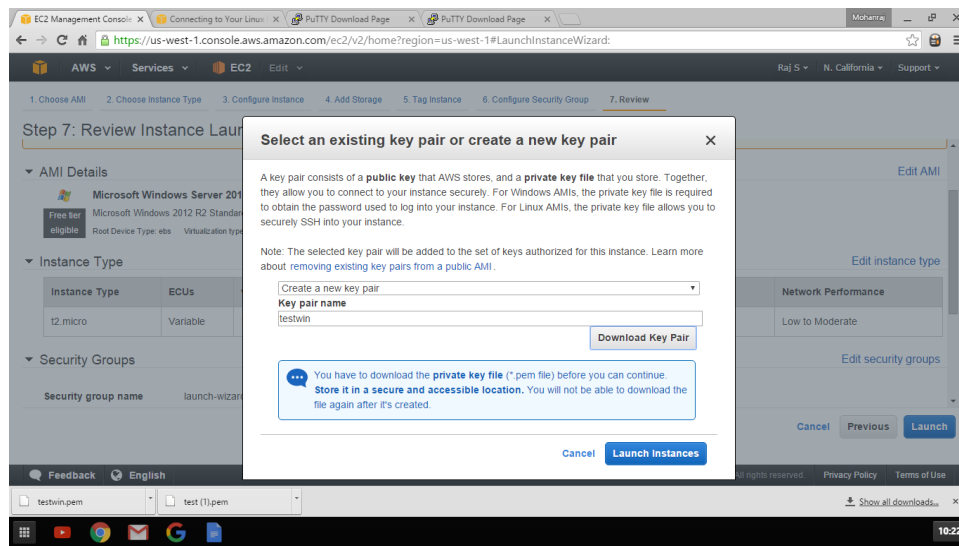
Security group name launch-wizard-2

Cancel Previous Launch Define key pair and launch

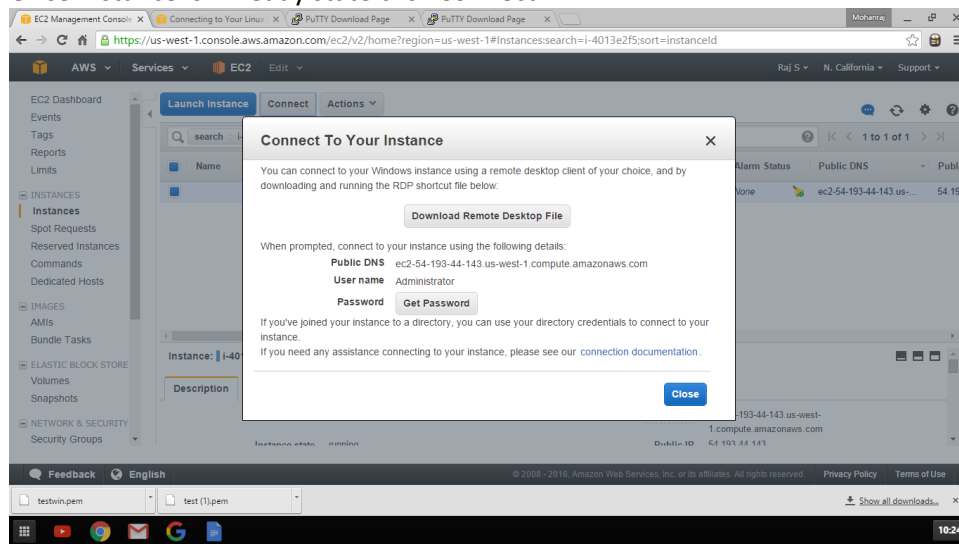
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test (1).pem Show all downloads... 10:22

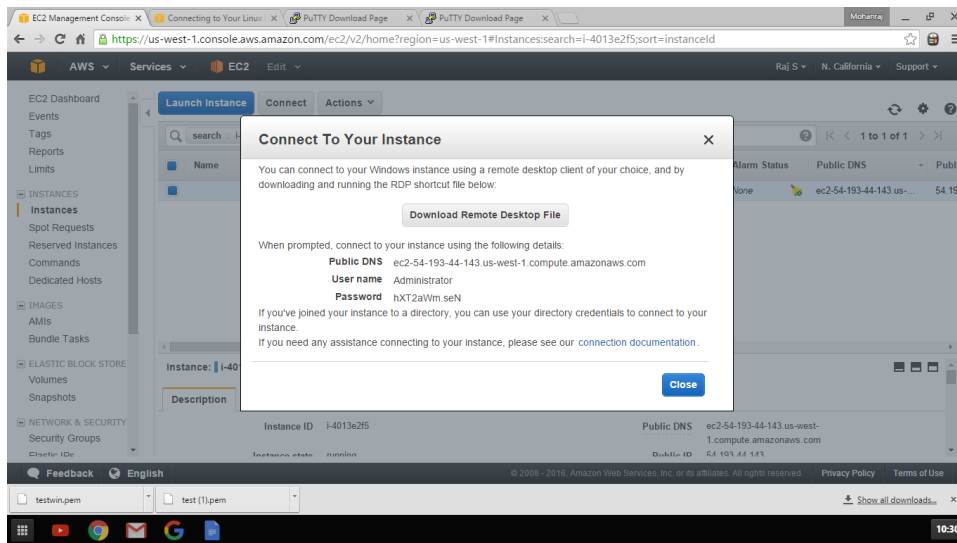
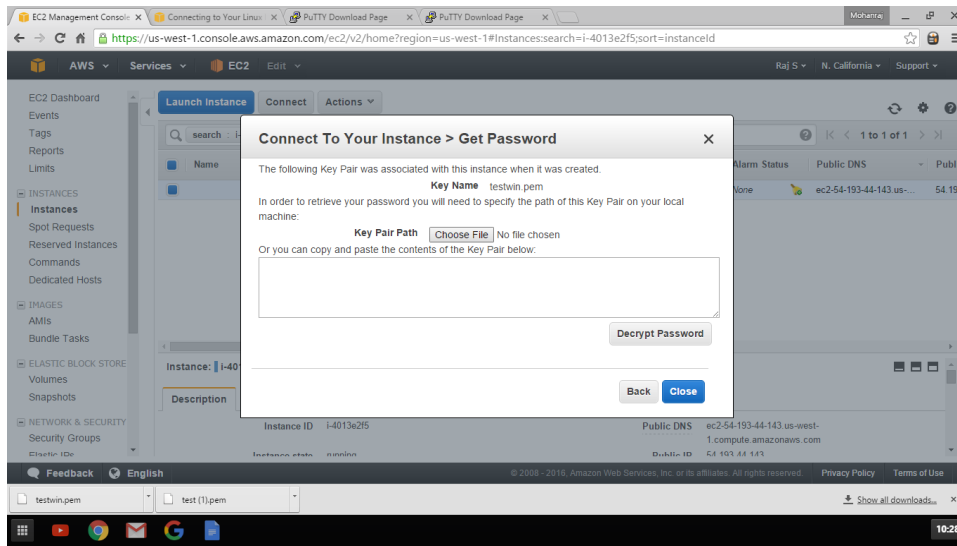
Download Key Pair



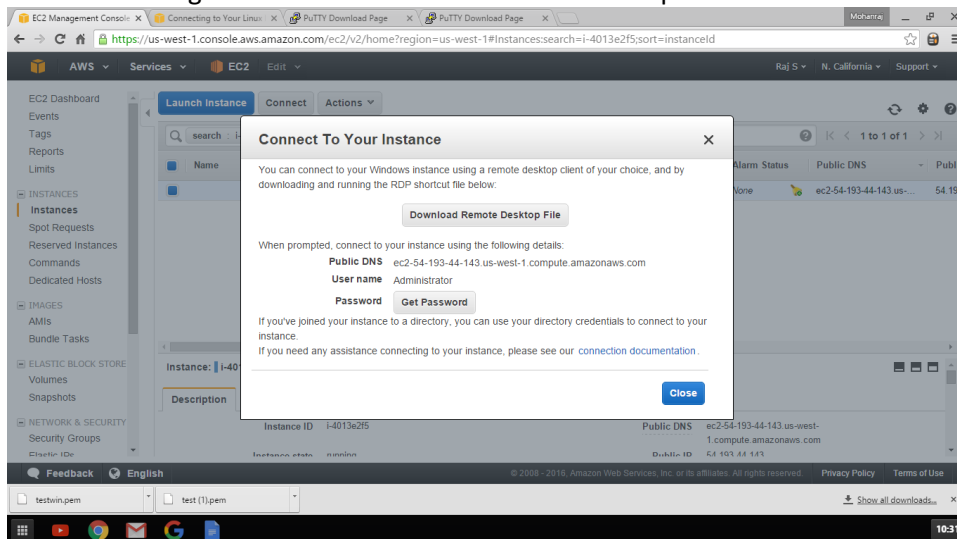
Once Instance is in ready state click Connect



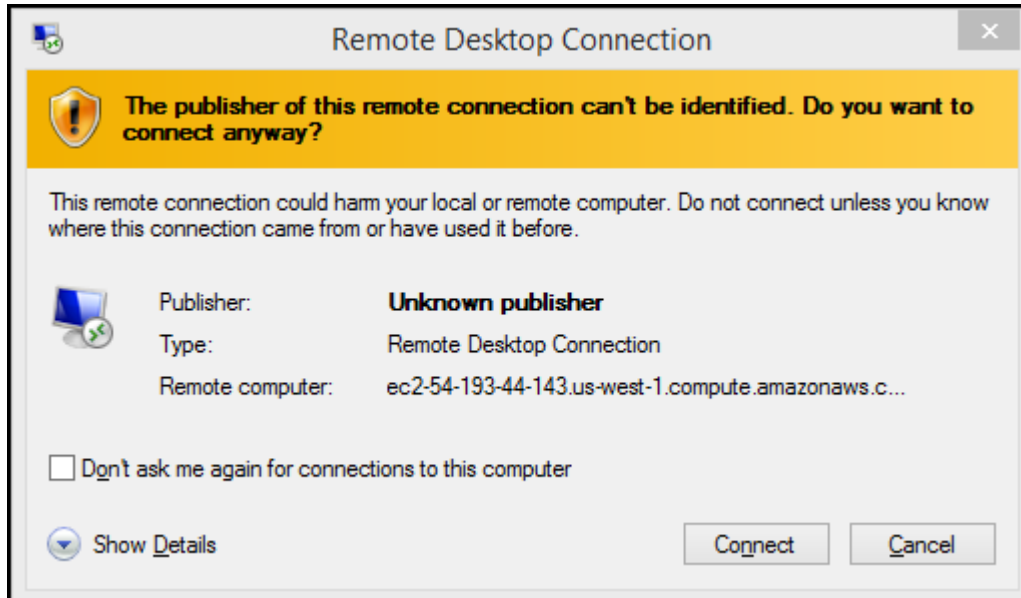
Click Get Password, Upload key file and click Decrypt password to get Administrator password
Save the password



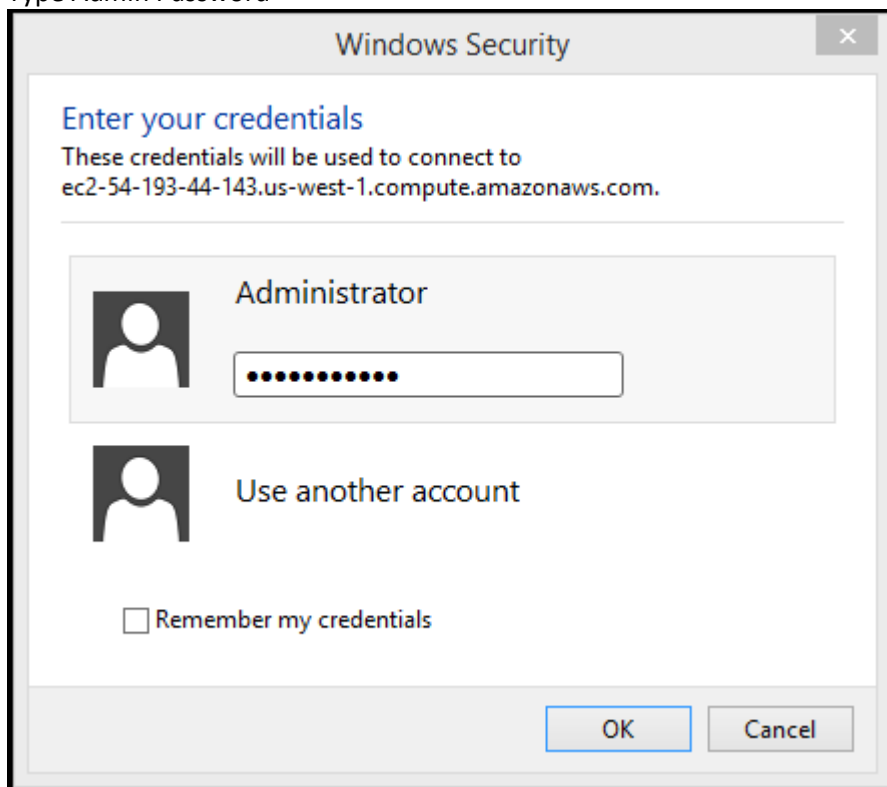
Click Connect again and click download Remote desktop file



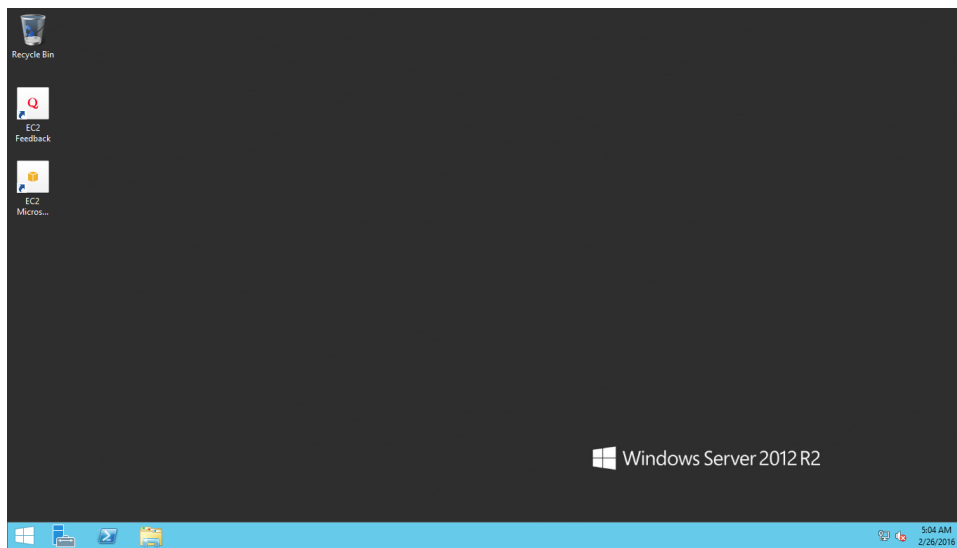
Click Connect



Type Admin Password



You are now connected to Windows Desktop



Terminate the VM

A screenshot of the AWS Management Console interface. The browser address bar shows the URL: <https://us-west-1.console.aws.amazon.com/ec2/v2/home?region=us-west-1#Instances:search=i-ca2fde7f;sort=instanceId>. The console shows a list of EC2 instances. One instance, named "i-ca2fde7f", is highlighted. A context menu is open over this instance, showing options: Connect, Get Windows Password, Launch More Like This, Instance State (with a sub-menu), Instance Settings, Image, Networking, and CloudWatch Monitoring. The sub-menu for "Instance State" is open, showing options: Start, Stop, Reboot, and Terminate. The instance details for "i-ca2fde7f" are visible below the list, showing it is in the "running" state. The public DNS is "ec2-52-53-215-231.us-west-1.compute.amazonaws.com". The console footer shows the date "© 2008 - 2016, Amazon Web Services, Inc. or its affiliates. All rights reserved." and the time "10:20".