



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

Enterprise Standards and Best Practices for IT Infrastructure

4th Year 2nd Semester 2014

Configuring Windows and Linux Server on AWS

Name: Perera M.A.L.P

SLIIT ID: IT13050436

Practical Session: WD Friday

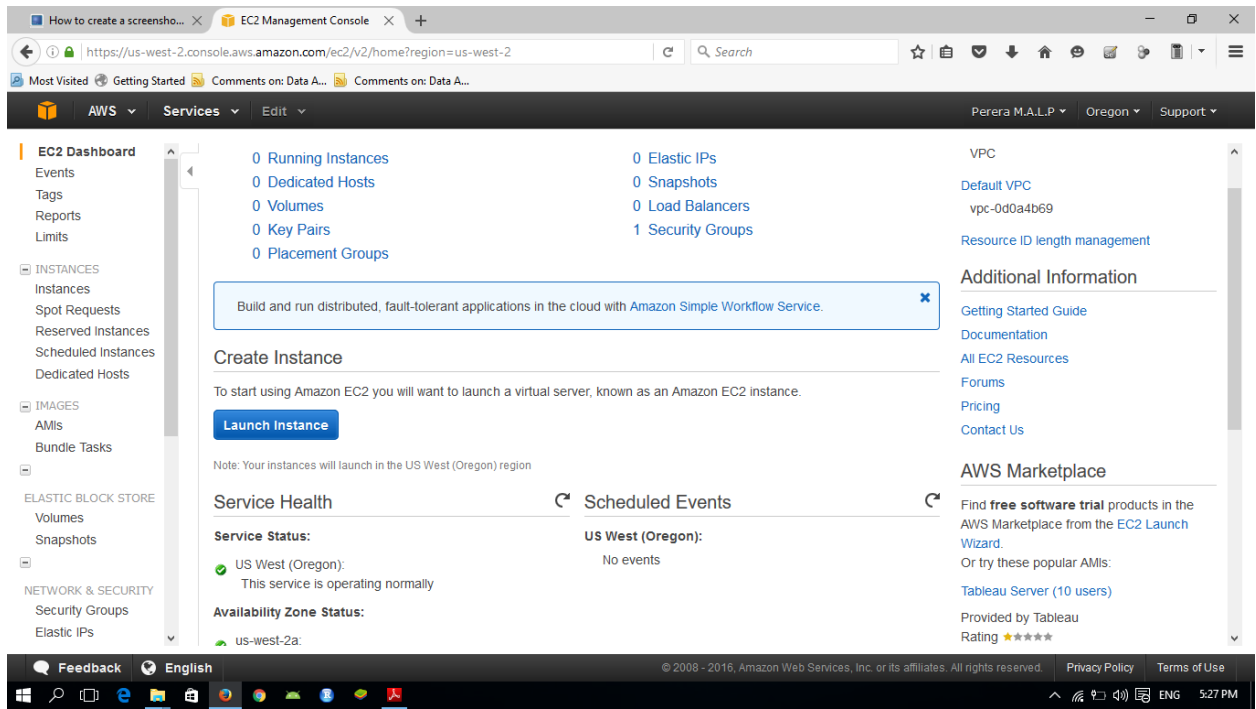
Date of Submission: 30.July.2016

Date of Evaluation : _____

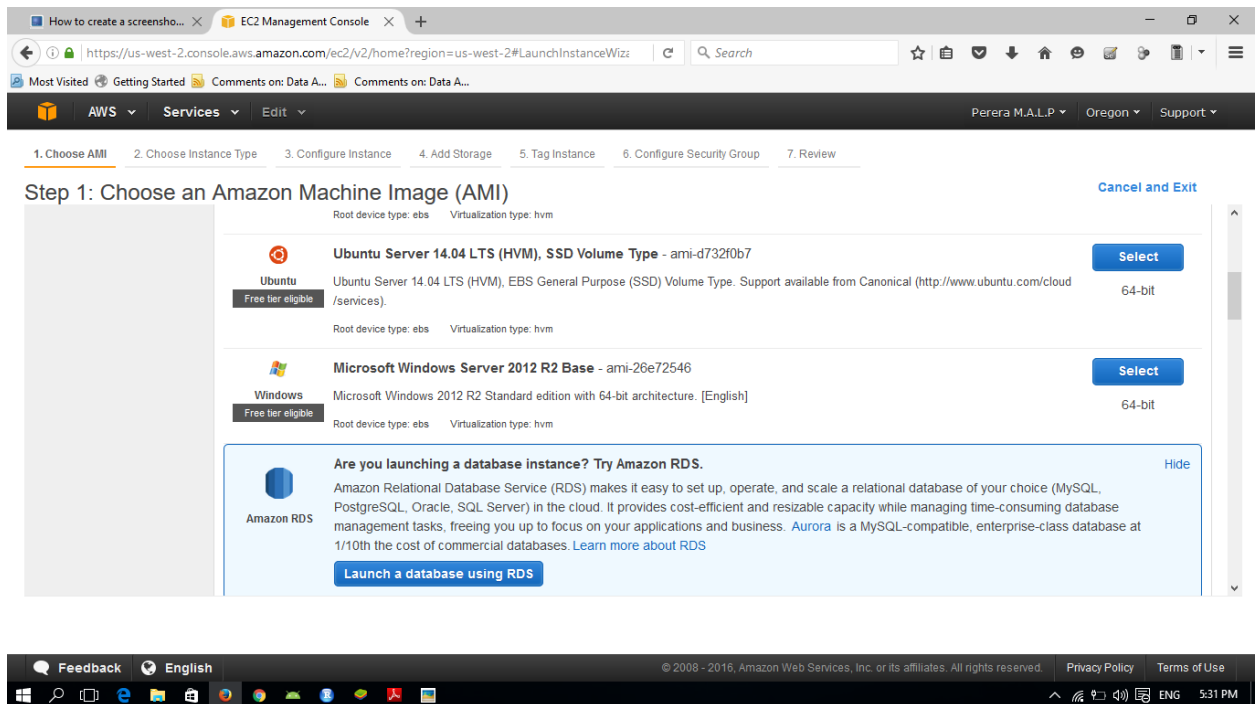
Evaluators Signature : _____

Windows

- Click 'Launch Instance' to create a new Windows instance in EC2 dashboard



- Click 'Select' in 'Microsoft Windows Server 2012 R2 Base'



- Click 'Review and Launch' and then Click 'Launch' in next window

How to create a screenshot... X EC2 Management Console X +

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWiz

AWS Services Edit Perera M.A.L.P Oregon 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

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
<input type="checkbox"/>	General purpose	m4.xlarge	4	16	EBS only	Yes	High

Cancel Previous **Review and Launch** Next: Configure Instance Details

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How to create a screenshot... X EC2 Management Console X +

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWiz

AWS Services Edit Perera M.A.L.P Oregon 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

Microsoft Windows Server 2012 R2 Base - ami-26e72546
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 (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

▼ Security Groups [Edit security groups](#)

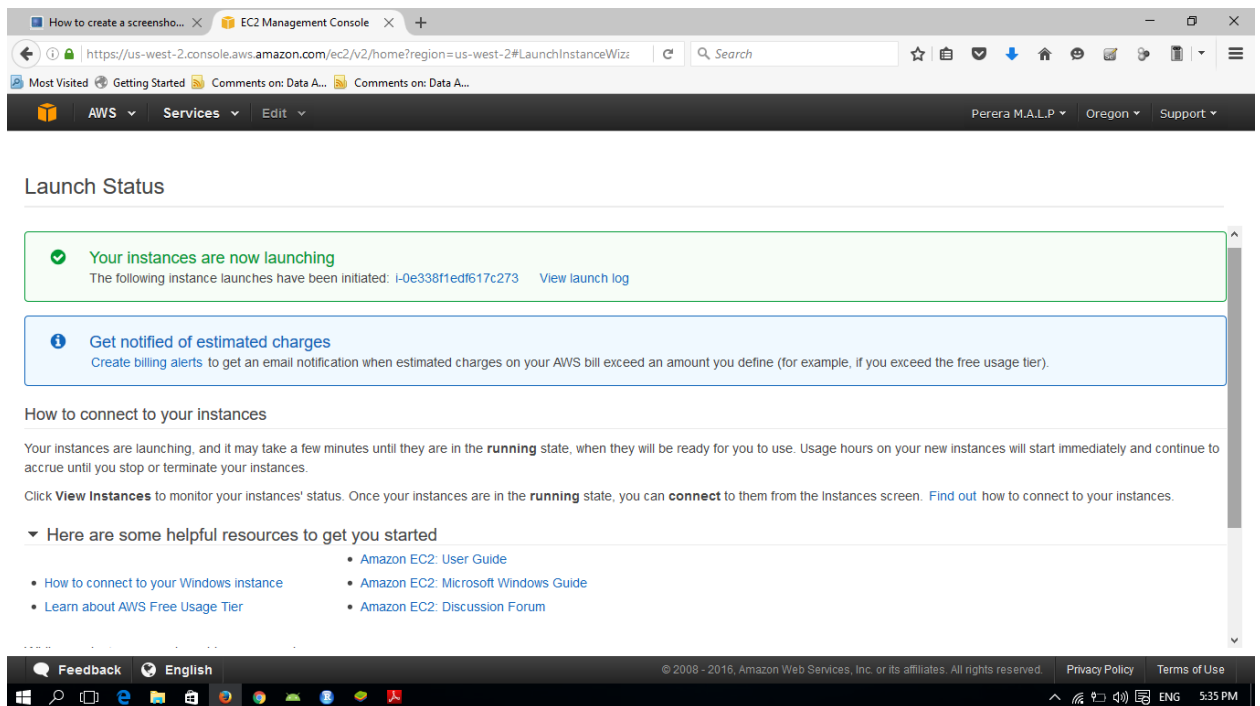
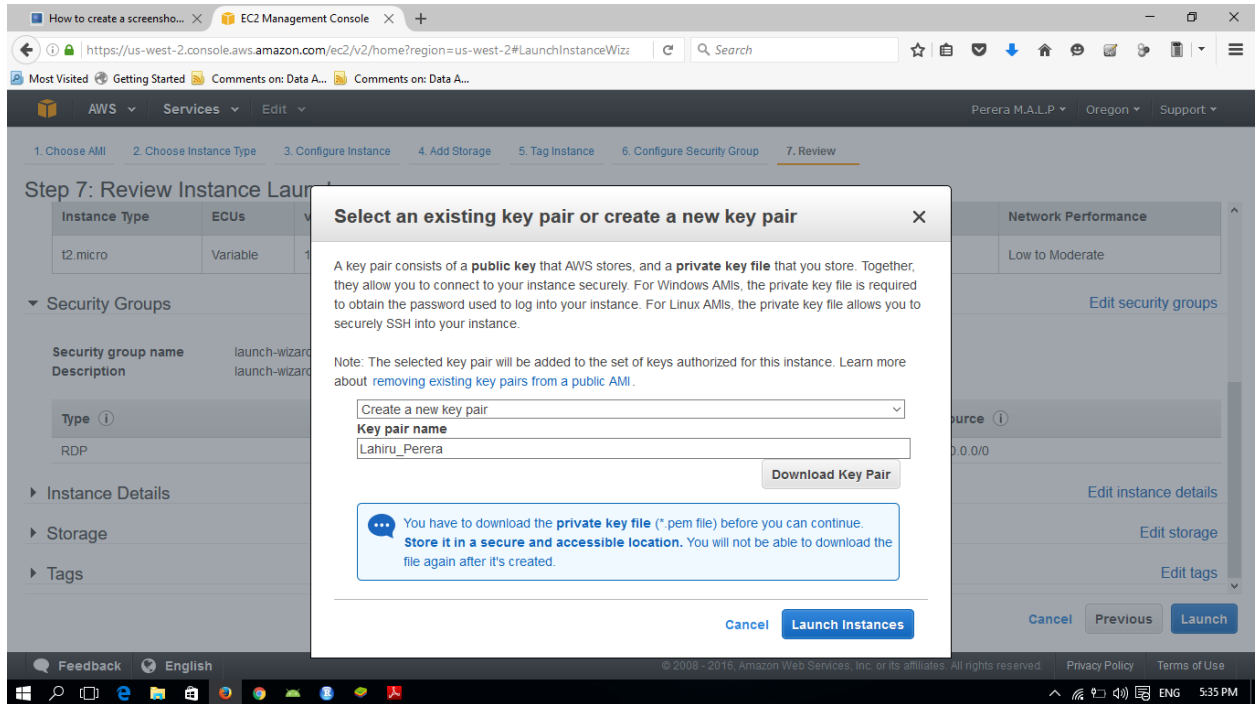
Security group name launch-wizard-1
Description launch-wizard-1 created 2016-07-30T17:32:13.781+05:30

Type	Protocol	Port Range	Source
RDP	TCP	3389	0.0.0.0/0

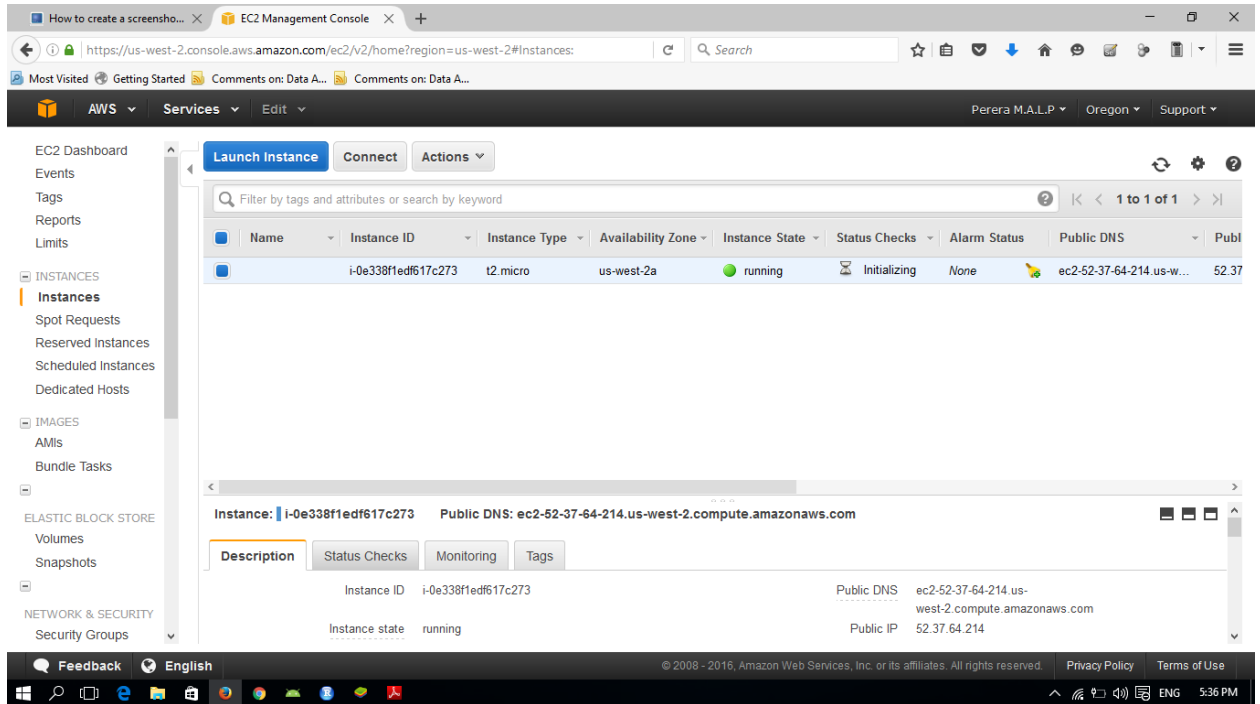
Cancel Previous **Launch**

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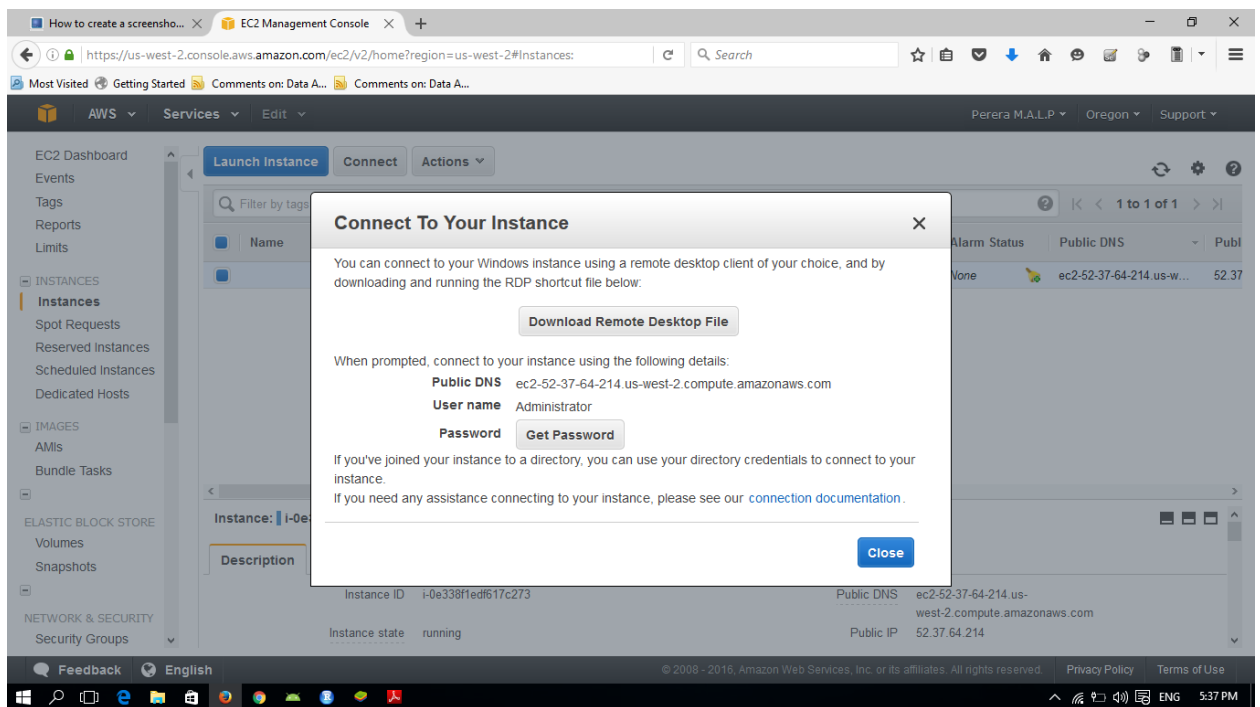
- Select 'Create a new key pair' and give any name(lahiru_perera) to 'Key pair name' and click 'Download Key Pair' then a file named lahiru_perera.pem will download after that click 'Launch Instances'.



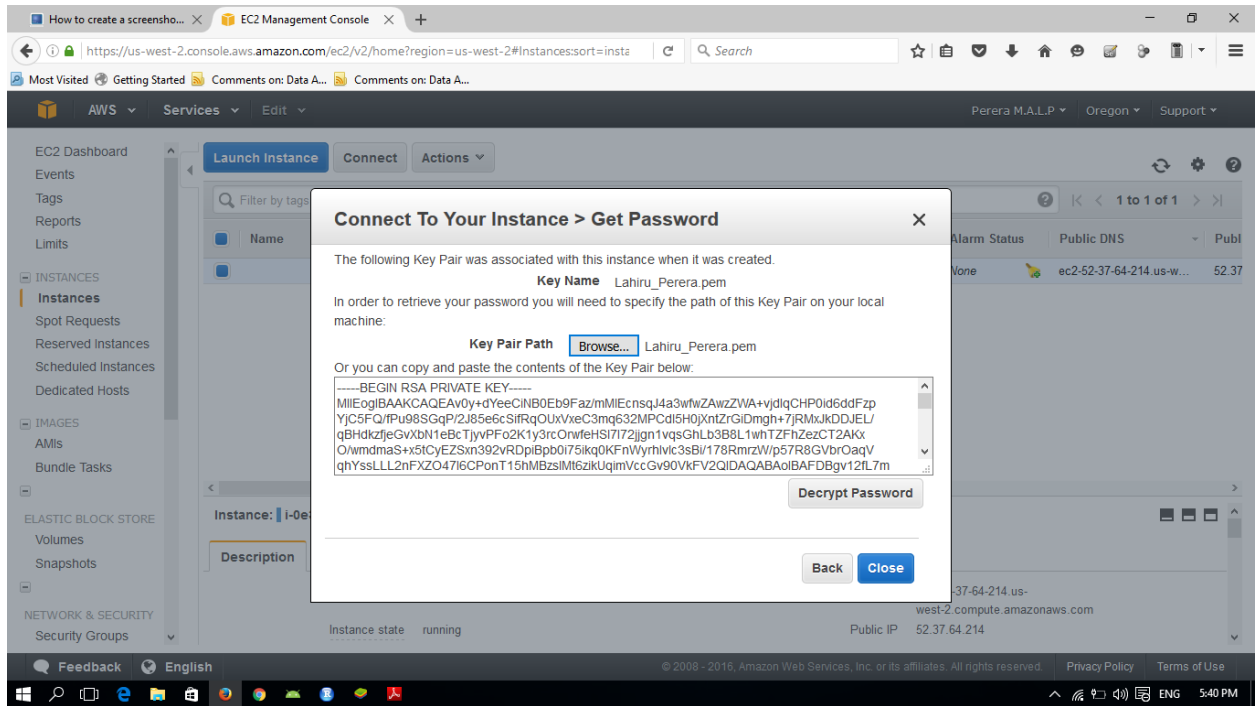
- Click 'Connect'



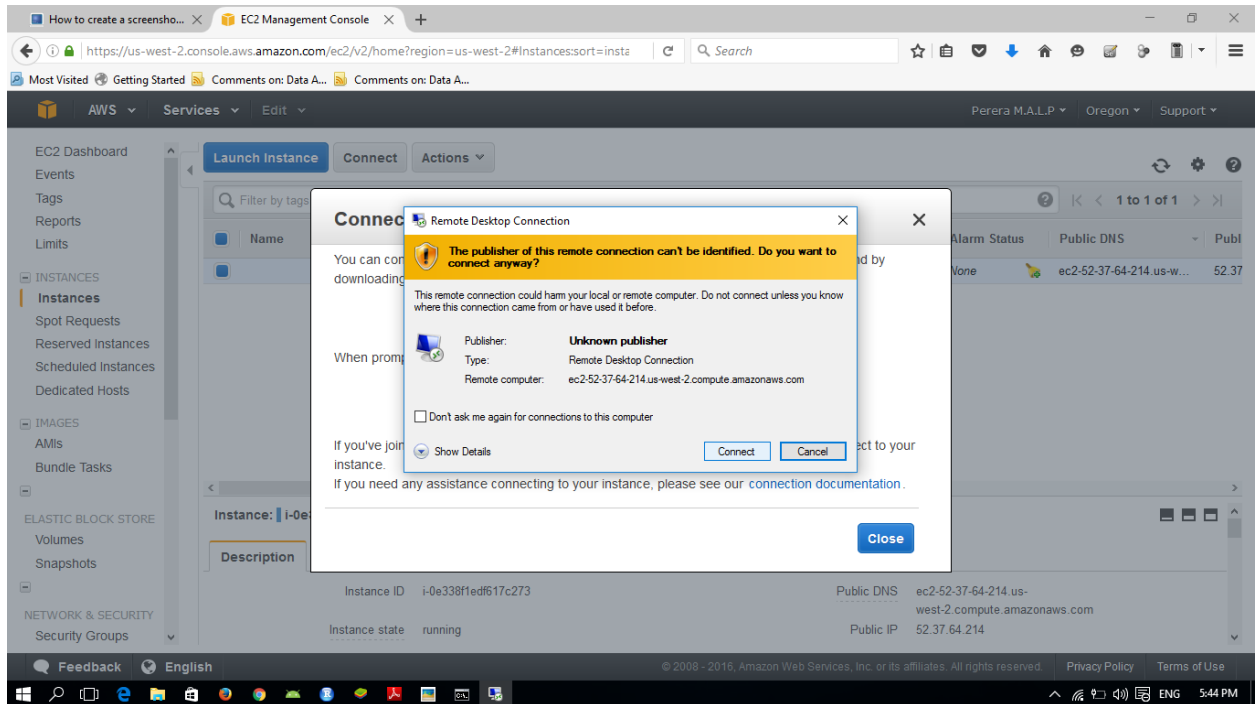
- Click 'Get Password'

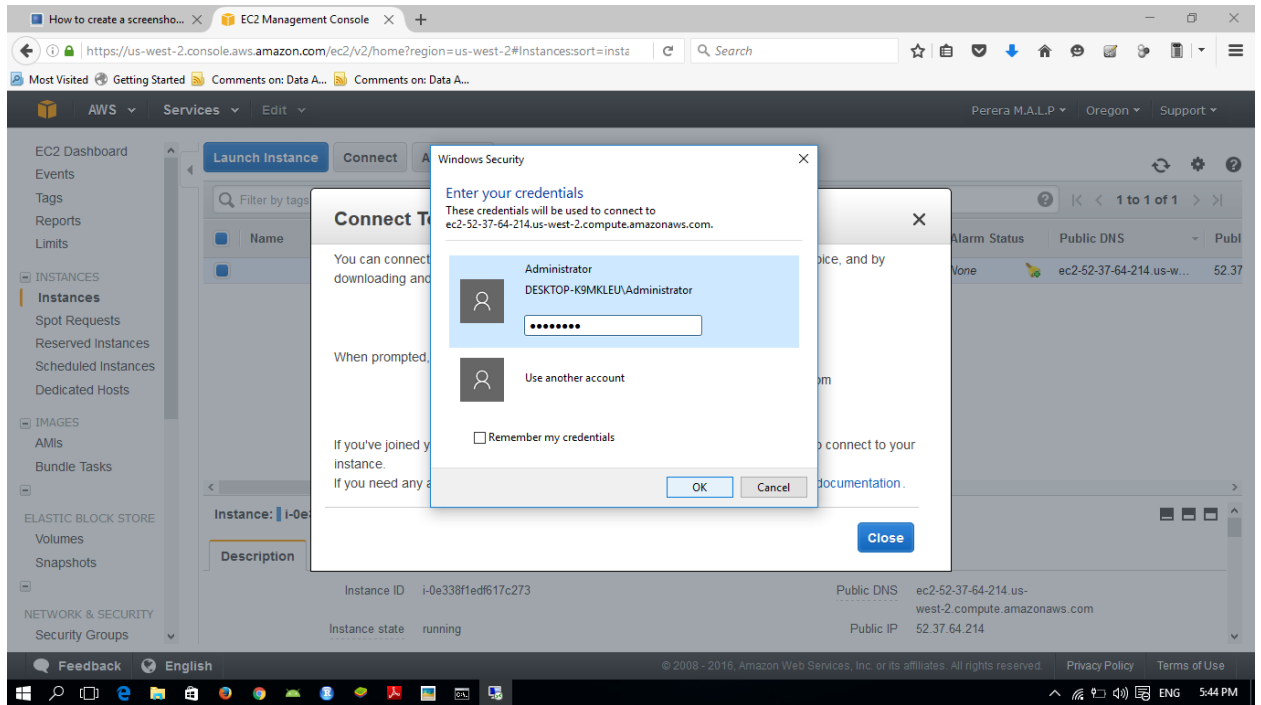


- Browse the .pem file that you saved earlier and click ‘Decrypt Password’ (In my case .pem file name is Lahiru_Perera.pem)

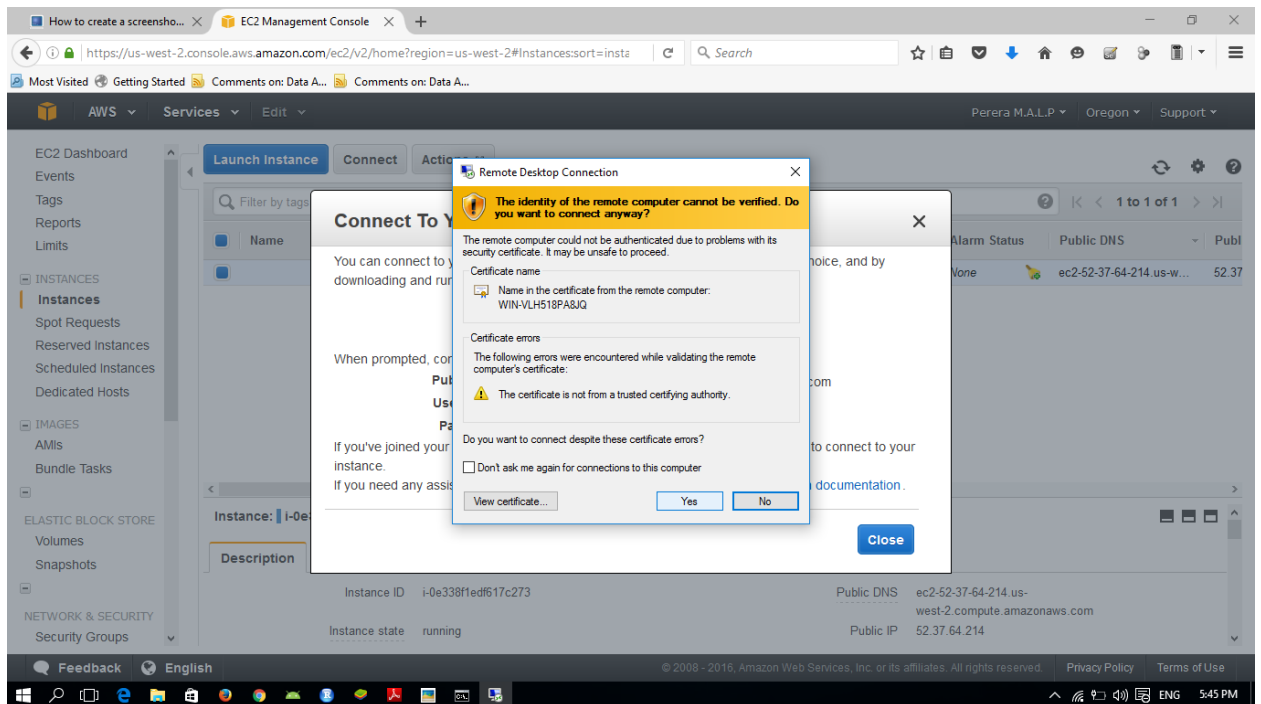


- Now go to Remote Desktop Connection and provide the public IP and then click ‘connect’.





- Click 'Yes'





Recycle Bin



EC2
Feedback



EC2
Micros...

Hostname : WIN-VLH518PA8JQ
Instance ID : i-0e338f1edf617c273
Public IP Address : 52.37.64.214
Private IP Address : 172.31.42.229
Availability Zone : us-west-2a
Instance Size : t2.micro
Architecture : AMD64

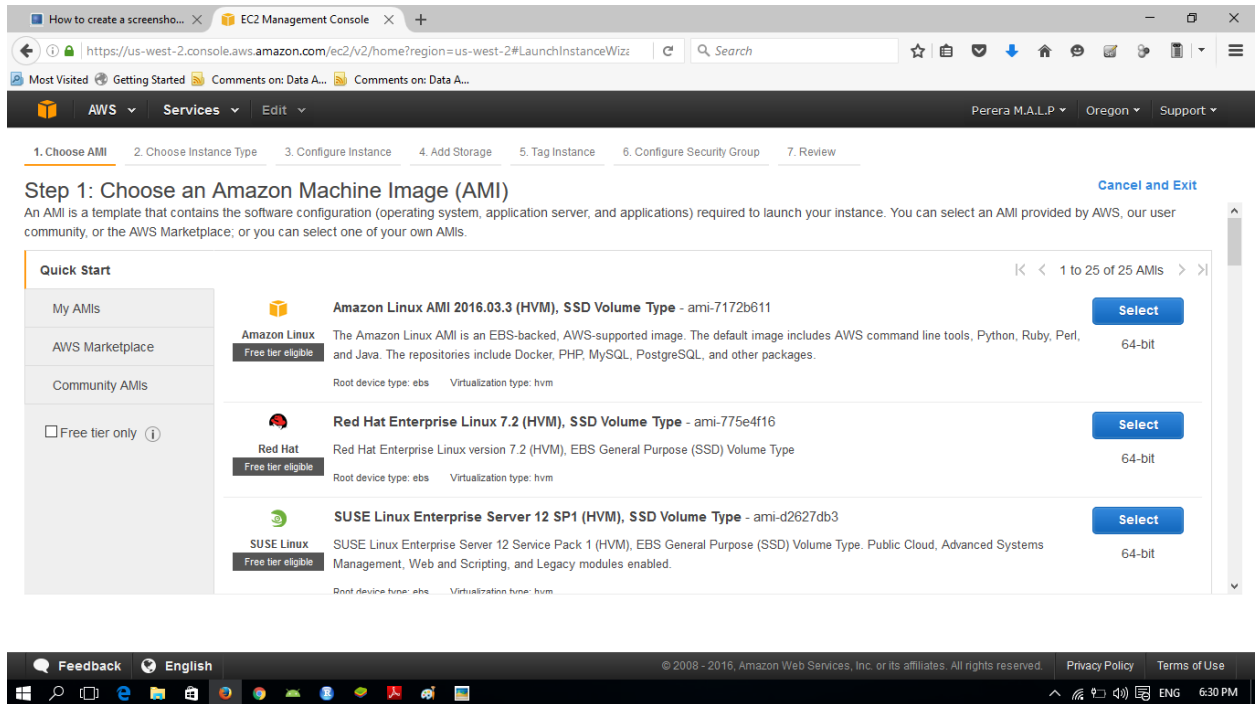
Windows Server 2012 R2



12:19 PM
7/30/2016

Linux

- Select Amazon Linux in AWS



The screenshot shows the AWS Management Console interface for the 'Launch Instance Wizard'. The first step, 'Choose an Amazon Machine Image (AMI)', is active. The console displays a list of AMIs under the 'Quick Start' section. The 'Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611' is selected. The console also shows the 'My AMIs', 'AWS Marketplace', and 'Community AMIs' sections. The 'Free tier eligible' checkbox is checked.

Step 1: Choose an Amazon Machine Image (AMI)

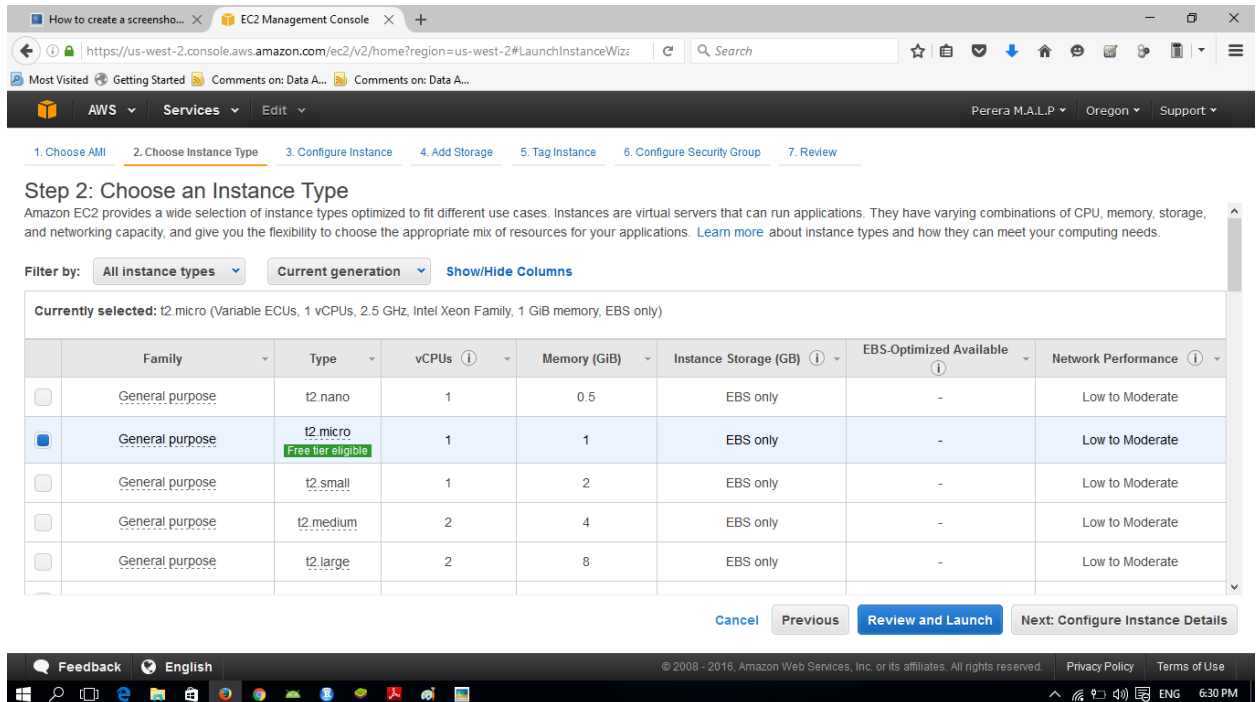
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

1 to 25 of 25 AMIs

AMI	Description	Root device type	Virtualization type	Architecture
Amazon Linux Free tier eligible 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.	ebs	hvm	64-bit
Red Hat Free tier eligible Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-775e4f16	Red Hat Enterprise Linux version 7.2 (HVM), EBS General Purpose (SSD) Volume Type	ebs	hvm	64-bit
SUSE Linux Free tier eligible 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.	ebs	hvm	64-bit

- Select 'Review and Launch' and then 'Launch' in next window



The screenshot shows the AWS Management Console interface for the 'Launch Instance Wizard'. The second step, 'Choose an Instance Type', is active. The console displays a table of instance types. The 't2.micro' instance type is selected. The console also shows the 'Filter by' section with 'All instance types' selected. The 'Current generation' dropdown is set to 'Current generation'. The 'Show/Hide Columns' button is visible.

Step 2: Choose an Instance Type

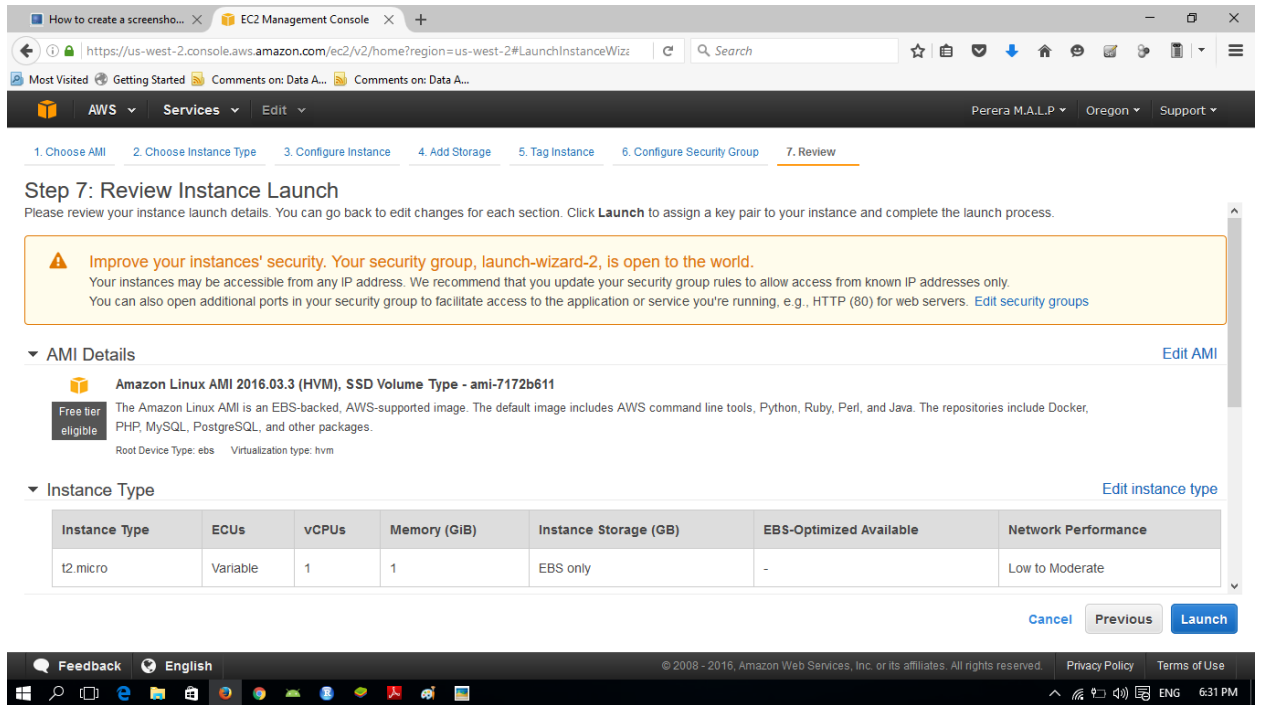
Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources 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

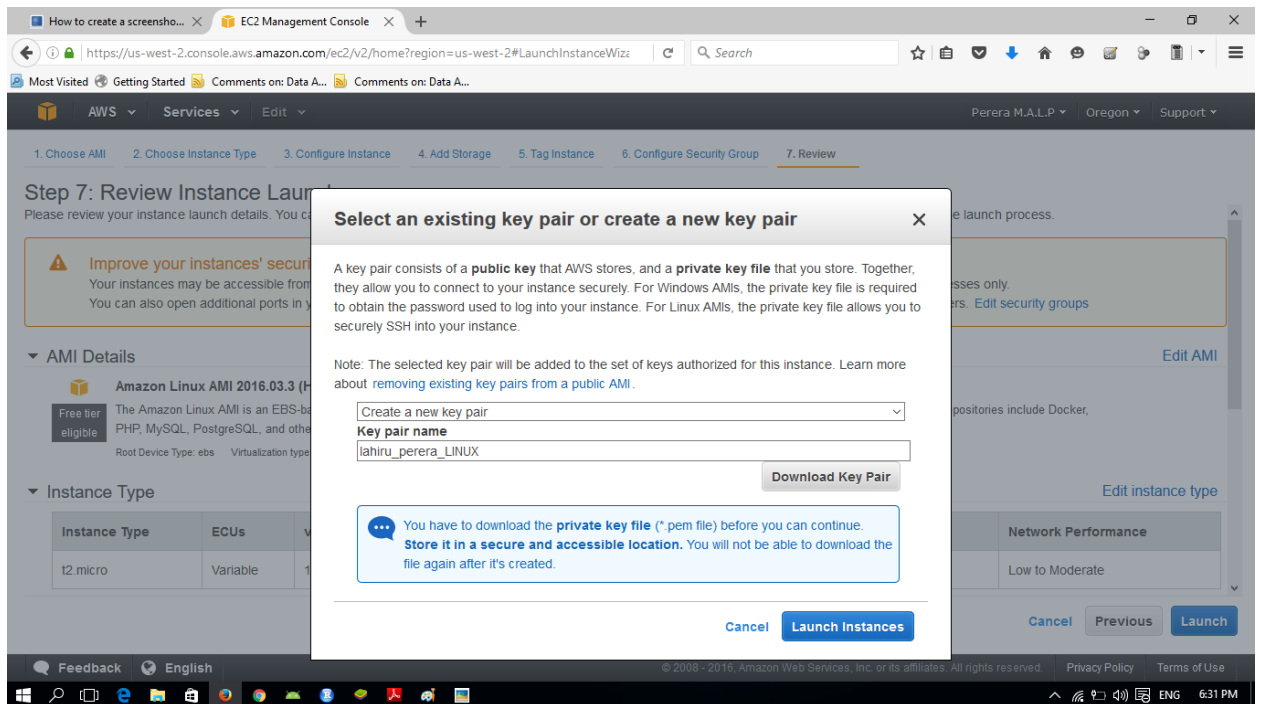
Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	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

Buttons: Cancel Previous **Review and Launch** Next: Configure Instance Details



- Select 'Create a New Key Pair' and Give a name. And then Click 'Launch Instances'



- Click ‘View Instance’

Launch Status

[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](#)

- Now the Linux instance has created

EC2 Dashboard

Events
Tags
Reports
Limits

INSTANCES

- Instances
- Spot Requests
- Reserved Instances
- Scheduled Instances
- Dedicated Hosts

IMAGES

- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

- Volumes
- Snapshots

NETWORK & SECURITY

- Security Groups

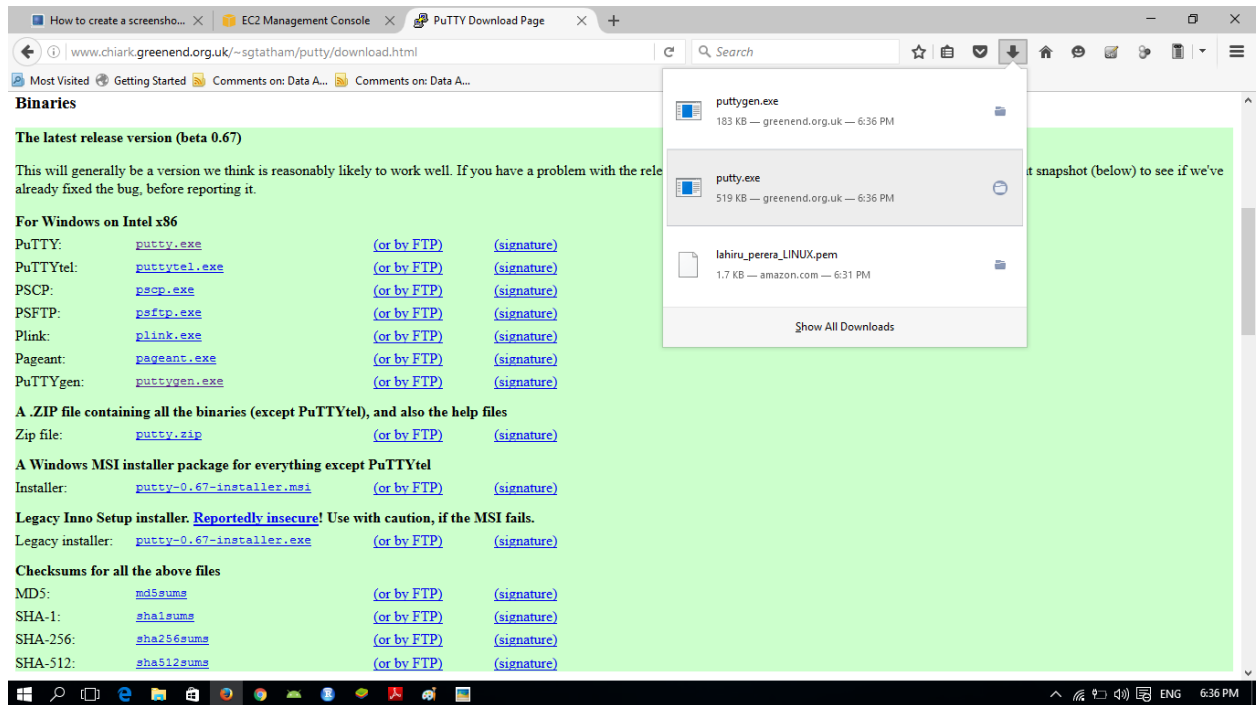
Launch Instance **Connect** **Actions** ▼

Filter by tags and attributes or search by keyword

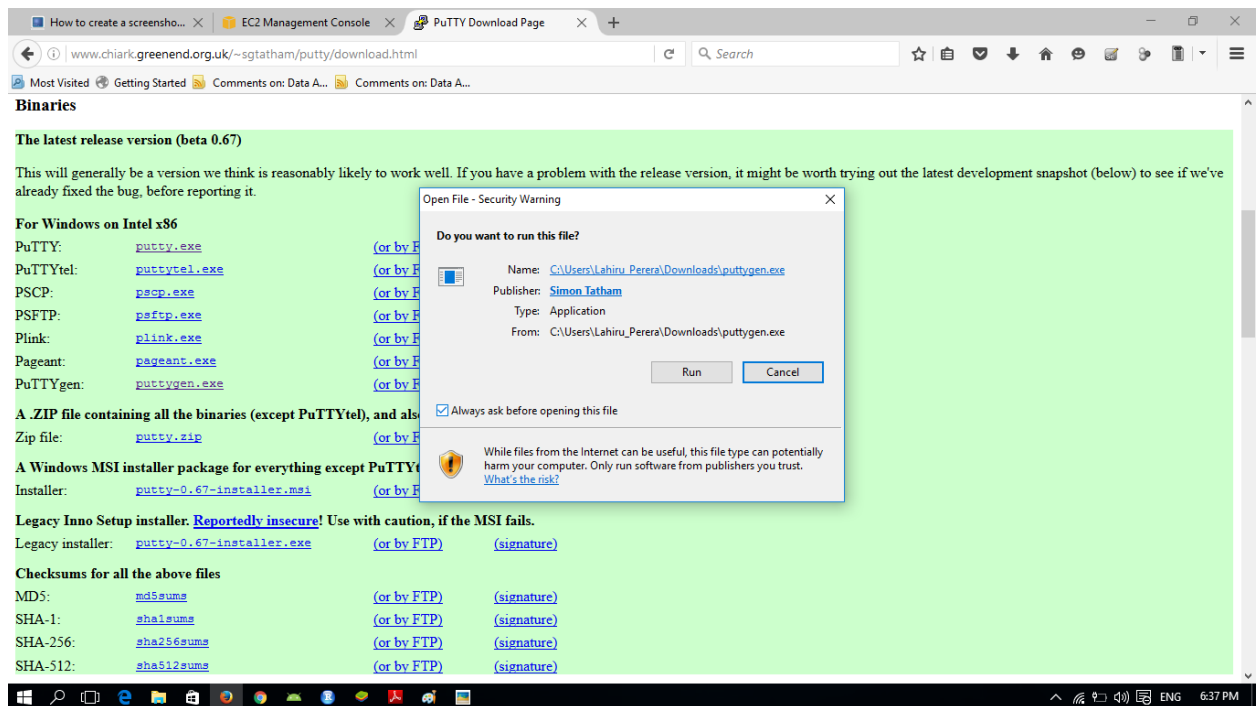
	Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Public IP
<input type="checkbox"/>		i-05fb211d3efd87cb0	t2.micro	us-west-2b	running	Initializing	None	ec2-52-42-231-135.us-...	52.42
<input type="checkbox"/>		i-0e338f1edf617c273	t2.micro	us-west-2a	running	2/2 checks ...	None	ec2-52-37-64-214.us-w...	52.37

Select an instance above

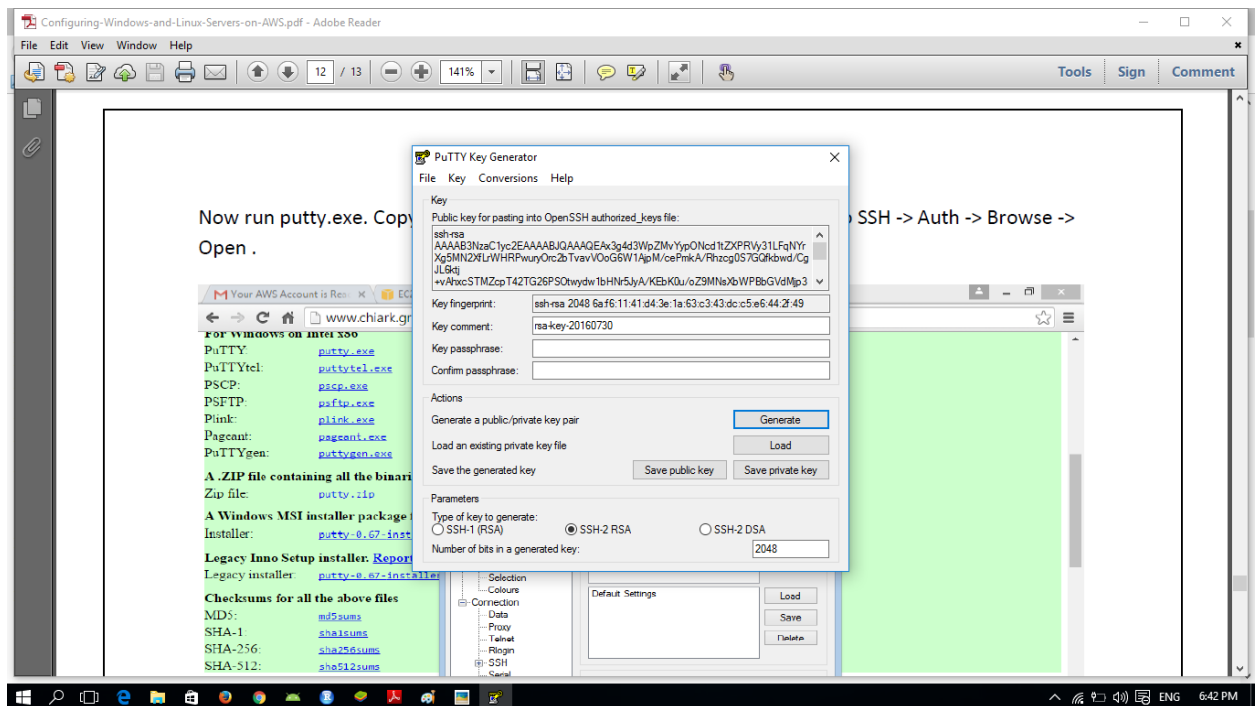
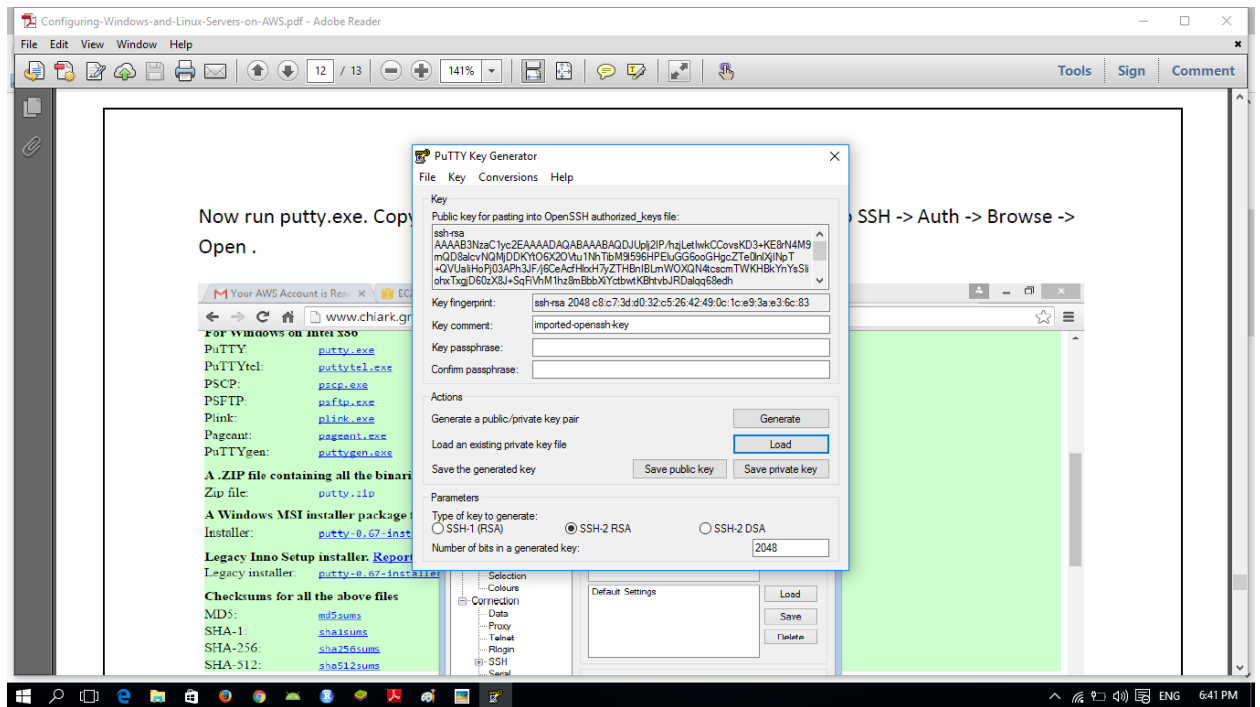
- Download putty.exe and putygen.exe.



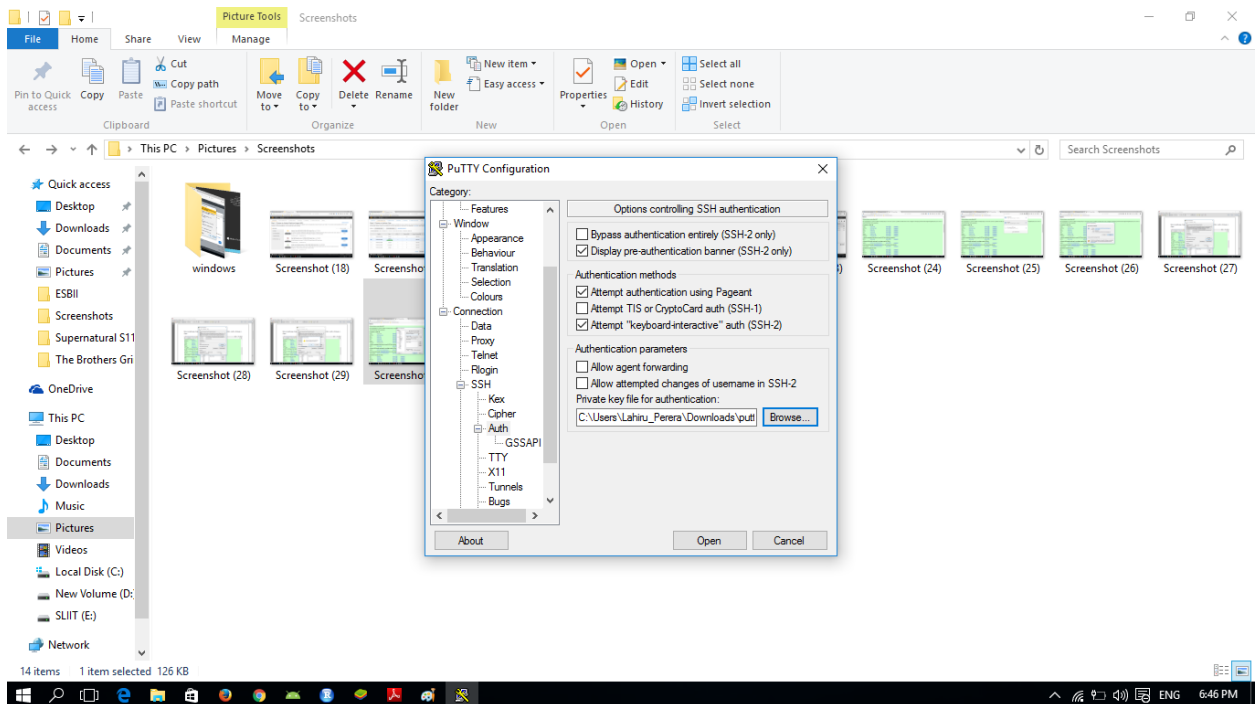
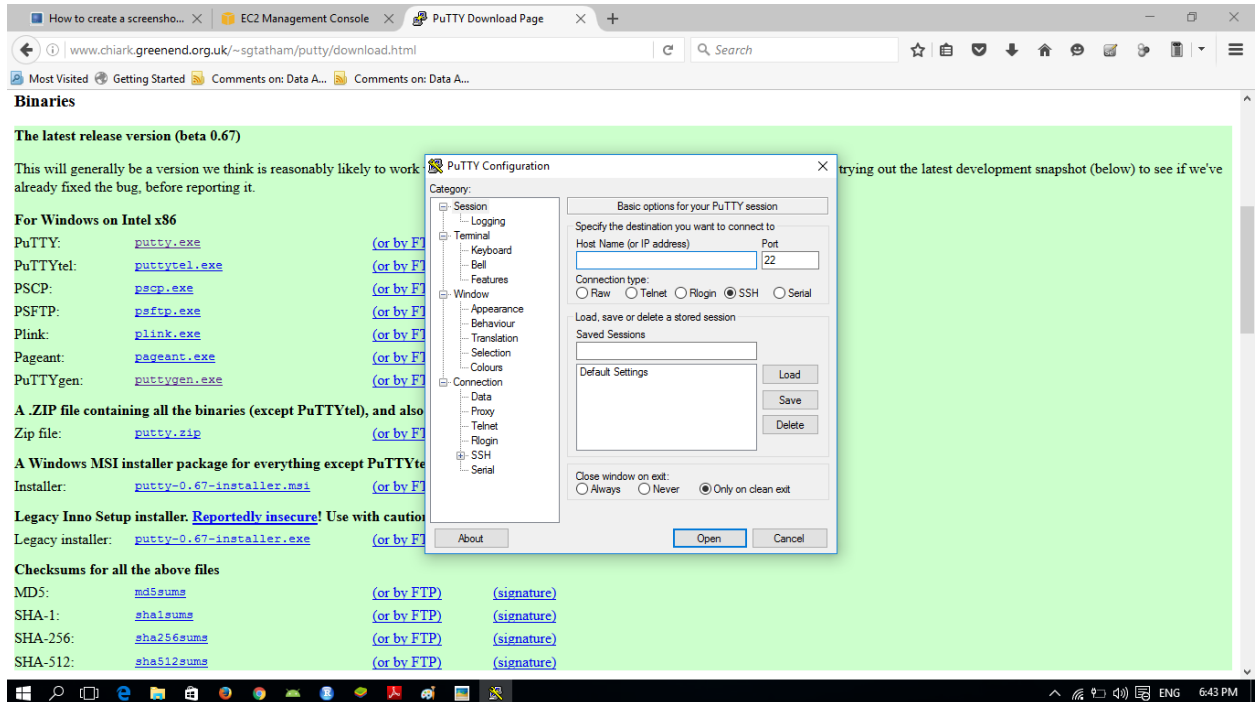
- Run 'Putygen.exe'



- Click 'Load' and give the linux.pem file which saved earlier and then click 'Generate' and Then click 'Save private key'



- Now run putty.exe. Copy public DNS . go to SSH -> Auth -> Browse & Go to SSH -> Auth -> Browse -> Open .



How to create a screenshot... X EC2 Management Console X PuTTY Download Page X +

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:sort=dns...
ec2-52-42-231-135.us-west-2.compute.amazonaws.com - PuTTY

login as: ec2-user

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1 to 2 of 2

Zone	Instance State	Status Checks	Alarm	Public DNS
	running	2/2 checks ...	No	ec2-52-37-64-214.us-west-2.compute.amazo...
	running	2/2 checks ...	No	ec2-52-42-231-135.us-west-2.compute.amaz...

Instance: i-05fb211d3efd87cb0 Public DNS: ec2-52-42-231-135.us-west-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-05fb211d3efd87cb0 Public DNS ec2-52-42-231-135.us-west-2.compute.amazonaws.com
Instance state running Public IP 52.42.231.135

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How to create a screenshot... X EC2 Management Console X PuTTY Download Page X How do I prevent "No sup... X Assignment X +

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:sort=dns...
ec2-52-42-231-135.us-west-2.compute.amazonaws.com - PuTTY

login as: ec2-user
Authenticating with public key "imported-openssh-key"

Amazon Linux AMI

https://aws.amazon.com/amazon-linux-ami/2016.03-release-notes/
6 package(s) needed for security, out of 15 available
Run "sudo yum update" to apply all updates.

[ec2-user@ip-172-31-16-57 ~]\$ ls -al

total 24

drwxr-xr-x 3 ec2-user ec2-user 4096 Jul 30 13:02 .

drwxr-xr-x 3 root root 4096 Jul 30 13:02 ..

-rw-r--r-- 1 ec2-user ec2-user 18 Feb 19 20:05 .bash_logout

-rw-r--r-- 1 ec2-user ec2-user 193 Feb 19 20:05 .bash_profile

-rw-r--r-- 1 ec2-user ec2-user 124 Feb 19 20:05 .bashrc

drwxr-xr-x 2 ec2-user ec2-user 4096 Jul 30 13:02 .ssh

[ec2-user@ip-172-31-16-57 ~]\$

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1 to 2 of 2

Zone	Instance State	Status Checks	Alarm	Public DNS
	running	2/2 checks ...	No	ec2-52-37-64-214.us-west-2.compute.amazo...
	running	2/2 checks ...	No	ec2-52-42-231-135.us-west-2.compute.amaz...

Instance: i-05fb211d3efd87cb0 Public DNS: ec2-52-42-231-135.us-west-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-05fb211d3efd87cb0 Public DNS ec2-52-42-231-135.us-west-2.compute.amazonaws.com
Instance state running Public IP 52.42.231.135

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https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:sort=dns...
ec2-52-42-231-135.us-west-2.compute.amazonaws.com - PuTTY

login as: ec2-user
Authenticating with public key "imported-openssh-key"

Amazon Linux AMI

https://aws.amazon.com/amazon-linux-ami/2016.03-release-notes/
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1 to 2 of 2

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	running	2/2 checks ...	No	ec2-52-37-64-214.us-west-2.compute.amazo...
	running	2/2 checks ...	No	ec2-52-42-231-135.us-west-2.compute.amaz...

Instance: i-05fb211d3efd87cb0 Public DNS: ec2-52-42-231-135.us-west-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-05fb211d3efd87cb0 Public DNS ec2-52-42-231-135.us-west-2.compute.amazonaws.com
Instance state running Public IP 52.42.231.135

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