



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

Enterprise Standards and Best Practices for IT Infrastructure

4th Year 2nd Semester 2016

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Practical Session: WE Tuesday

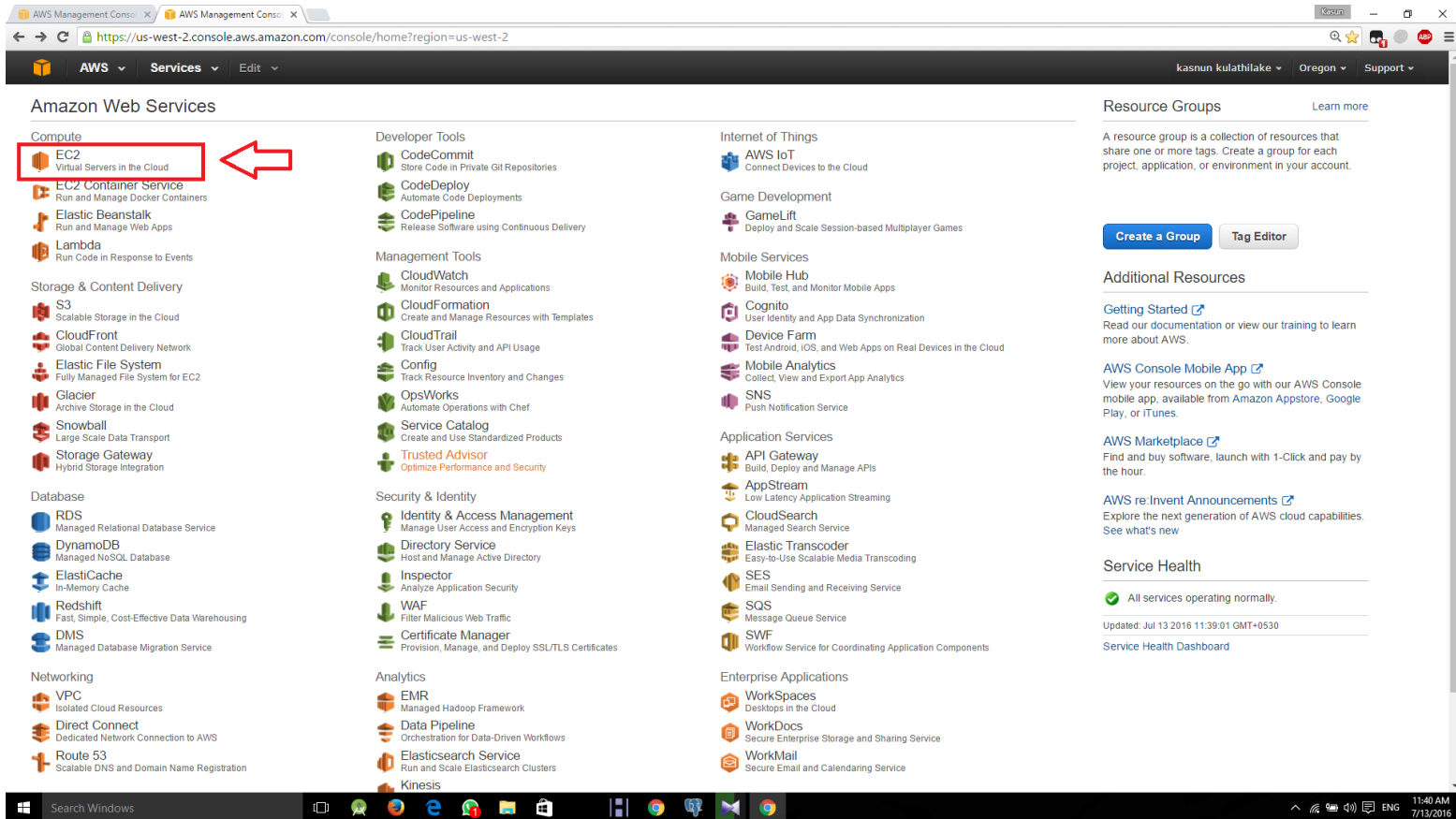
Practical Number : Lab 02

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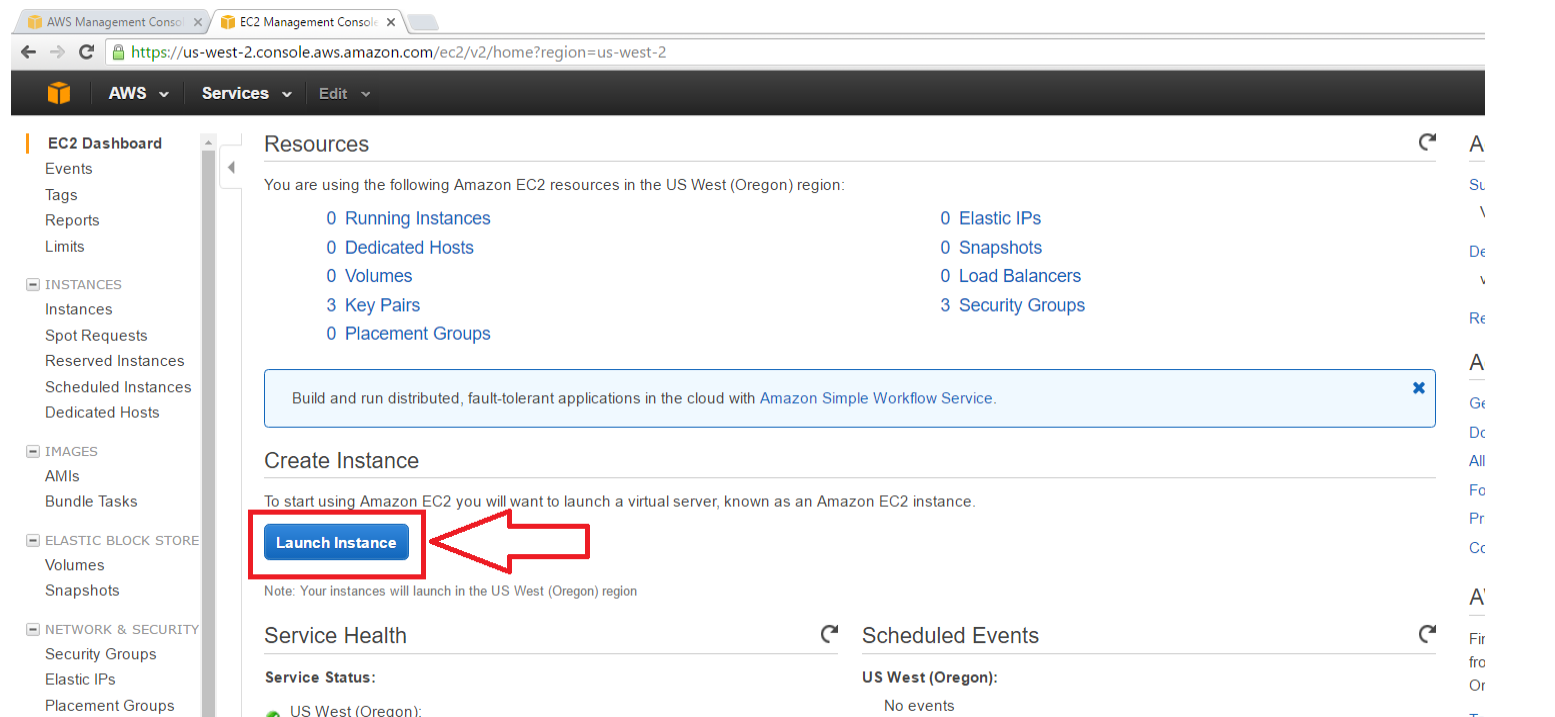
Launching the Linux AMI 2016

Steps

1. Open the Amazon EC2 console



2. From the console dashboard .choose launch instance



3. Choose an Amazon Machine Image (AMI) since you want to launch Linux AMI select the AMI for linux.

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
<input type="checkbox"/> Free tier only			

Amazon Linux	Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611	Select
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	64-bit
Red Hat	Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-775e4f16	Select
Free tier eligible	Red Hat Enterprise Linux version 7.2 (HVM), EBS General Purpose (SSD) Volume Type Root device type: ebs Virtualization type: hvm	64-bit
SUSE	SUSE Linux Enterprise Server 12 SP1 (HVM), SSD Volume Type - ami-d2627db3	Select

4. On the choose an instance type page we can select the hardware configuration for our selected instance. From the menu select the t2.micro type, which is selected by default and it's a free eligible tier. And then select configure instance details button

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 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)
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only

	EBS only	Yes	High
	EBS only	Yes	High
	EBS only	Yes	High
	EBS only	Yes	10 Gigabit
	1 x 4 (SSD)	-	Moderate

[Cancel](#)
[Previous](#)
[Review and Launch](#)
[Next: Configure Instance Details](#)

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- Here we can set the network and the assign the IP address and the subnet for our network. For now we use the default one.it can be change according to your network requirement. Then click the add storage button.

AWS Management Console
EC2 Management Console

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

AWS
Services
Edit

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

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management

Number of instances ⓘ
[Launch into Auto Scaling Group ⓘ](#)

Purchasing option ⓘ
☐ Request Spot instances

Network ⓘ
[Create new VPC](#)

Subnet ⓘ
[Create new subnet](#)

Auto-assign Public IP ⓘ

Domain join directory ⓘ
[Create new directory](#)

IAM role ⓘ
[Create new IAM role](#)

Shutdown behavior ⓘ

Enable termination protection ⓘ
☐ Protect against accidental termination

Monitoring ⓘ
☐ Enable CloudWatch detailed monitoring
[Additional charges apply.](#)

Tenancy ⓘ
[Additional charges will apply for dedicated tenancy.](#)

► Advanced Details

6. Here in add storage if you change the amount of GB it will charge from you so we keep the default value as it is. If you need more GB then you can change the amount according to your requirement.

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/xvda	snap-d465048a	8	General Purpose SSD (GP2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

[Add New Volume](#)

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Tag Instance](#)

7. In tag instance we don't need to change the configuration so we keep the default values. And for security group we tick the create new security group. Now we can launch the instance. For that press the review and launch button.

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, you can 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:

Description:

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

[Add Rule](#)

Step 5: Tag Instance

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. [Learn more](#) about tagging your Amazon EC2 resources.

Key (127 characters maximum)	Value (255 characters maximum)
<input type="text" value="Name"/>	<input type="text"/>

[Create Tag](#) (Up to 10 tags maximum)

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

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8. Then once you done with the review you can press the launch button.

EC2 Management Console | Course: Enterprise Stand... | Downloads

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

AWS Services Edit kasnun kulathilake 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

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 [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	Description
launch-wizard-2	launch-wizard-2 created 2016-07-12T18:27:27.994+05:30

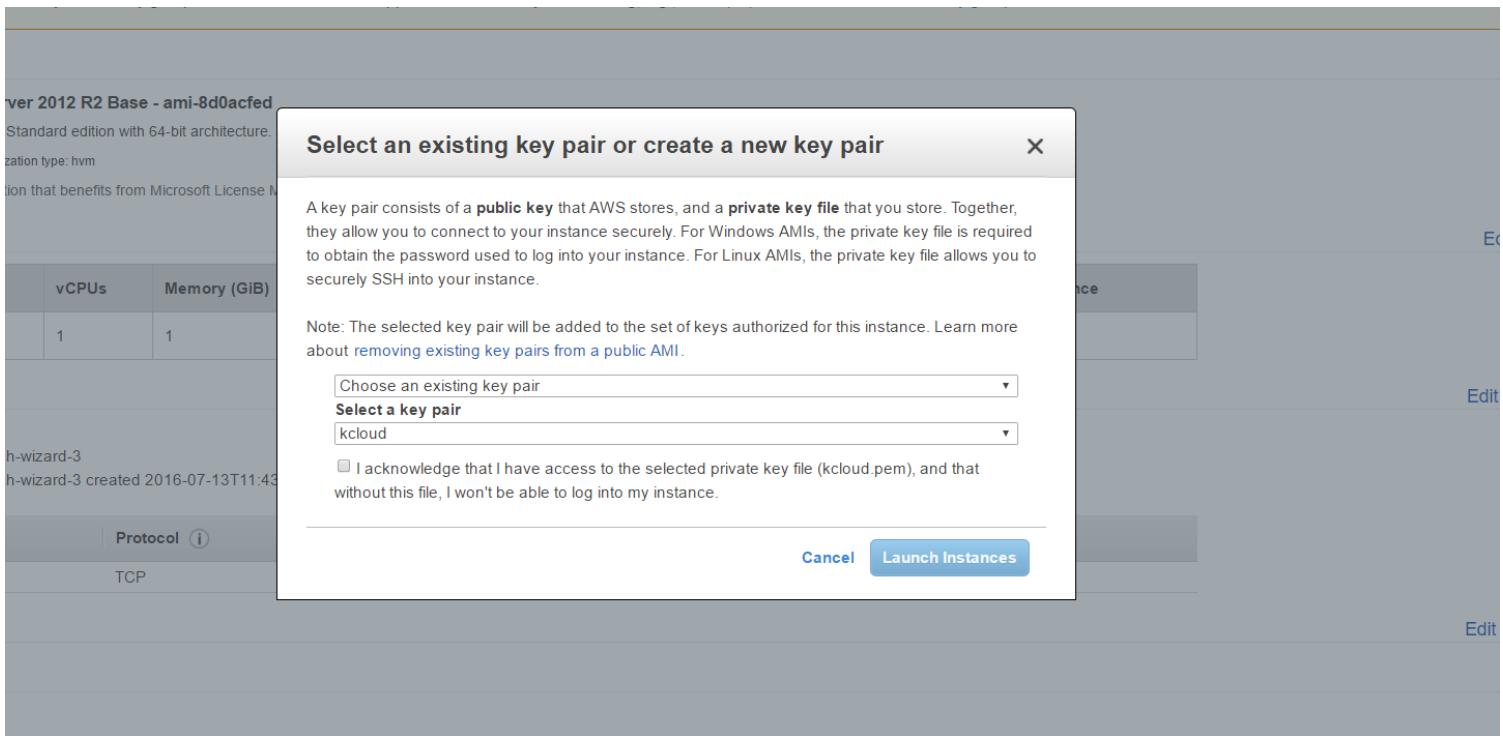
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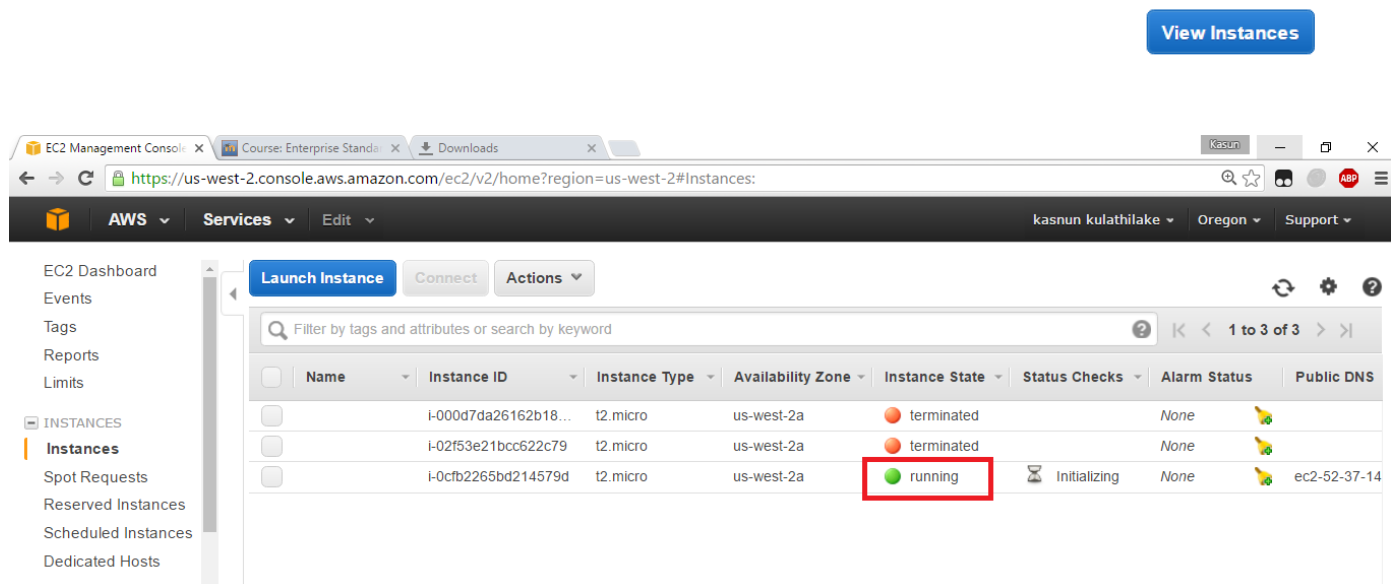
ec2-52-40-215-20.us...rdp kcloud1.pem Show all downloads...

Search Windows 6:28 PM 7/12/2016

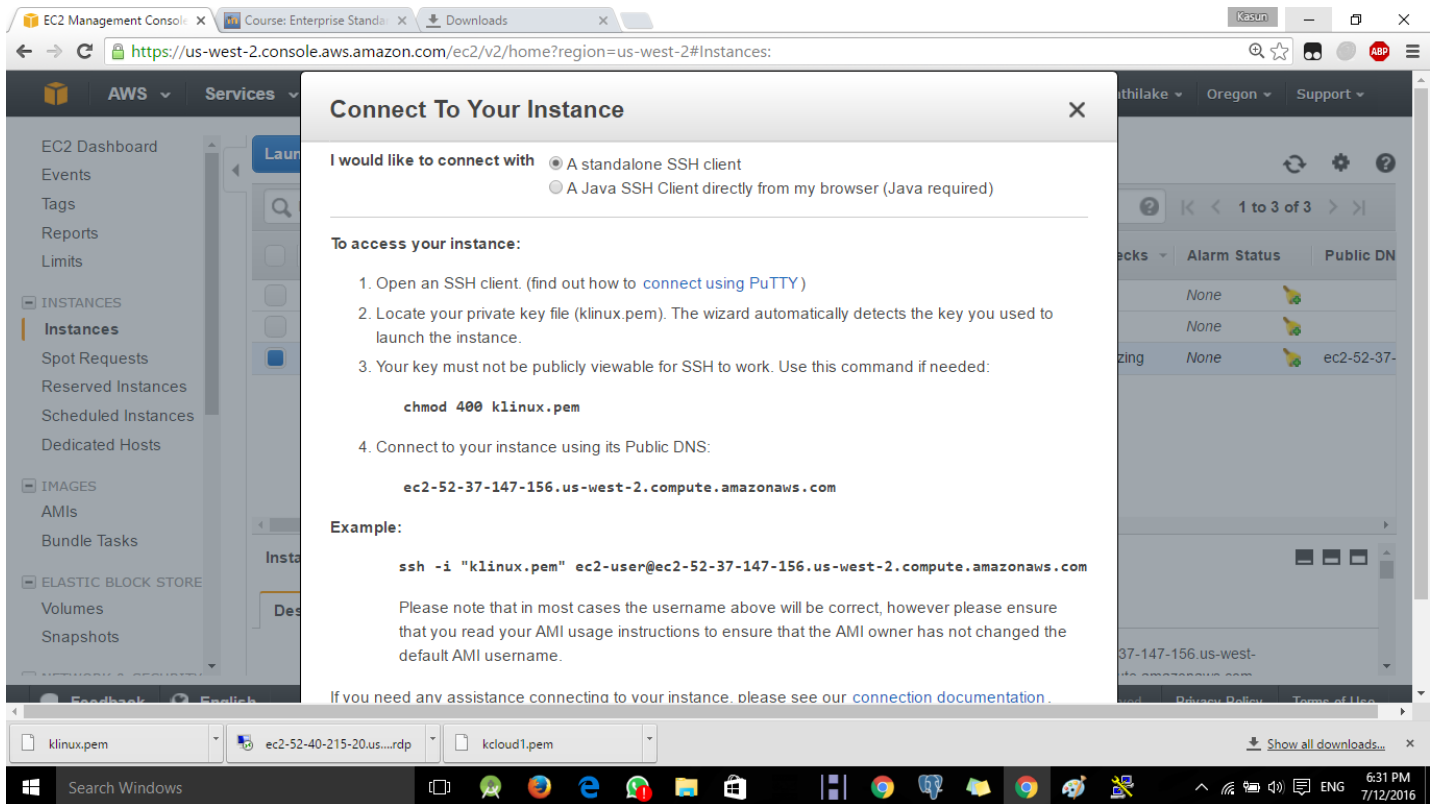
9. Once you hit the launch button then we can create the private key pair for our new instance, then from the menu select the create new key pair and give the key pair name. If you have already created key then you can use that key for you instance.



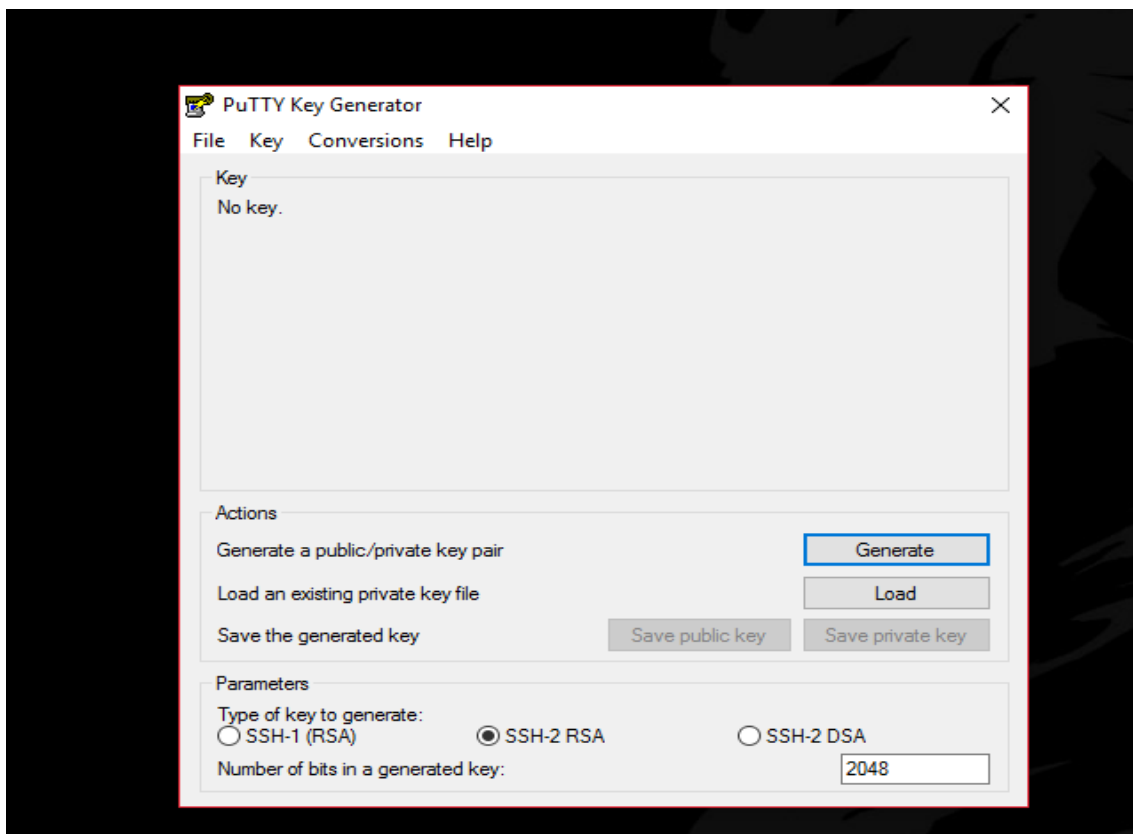
10. When you create the key then hit the launch instance button. then press view instance to view the launching instance. Now you can see that your instance is running.



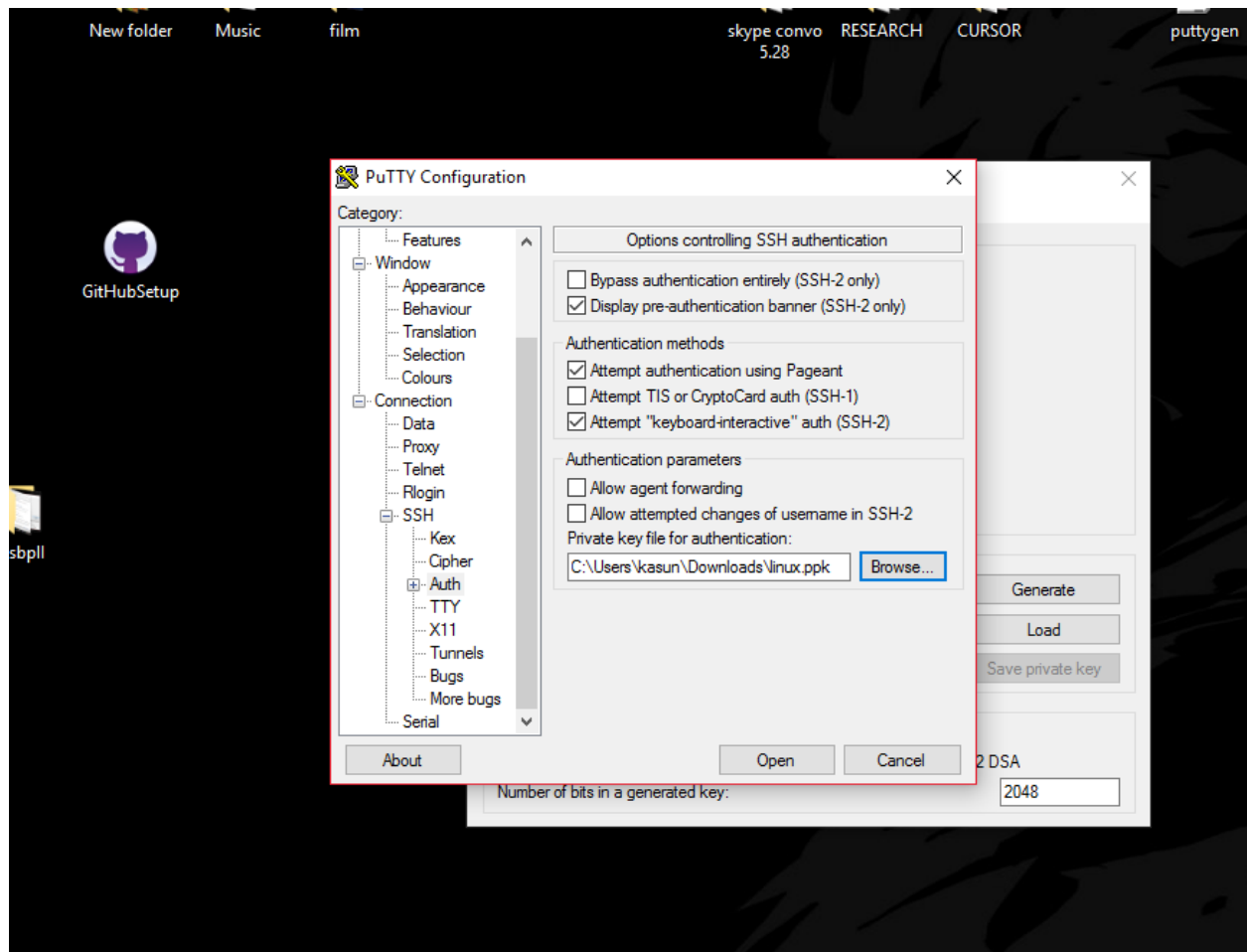
11. Now we need to connect with our machine. Here we can't directly connect with our server like windows. So we use putty software to set our connection.



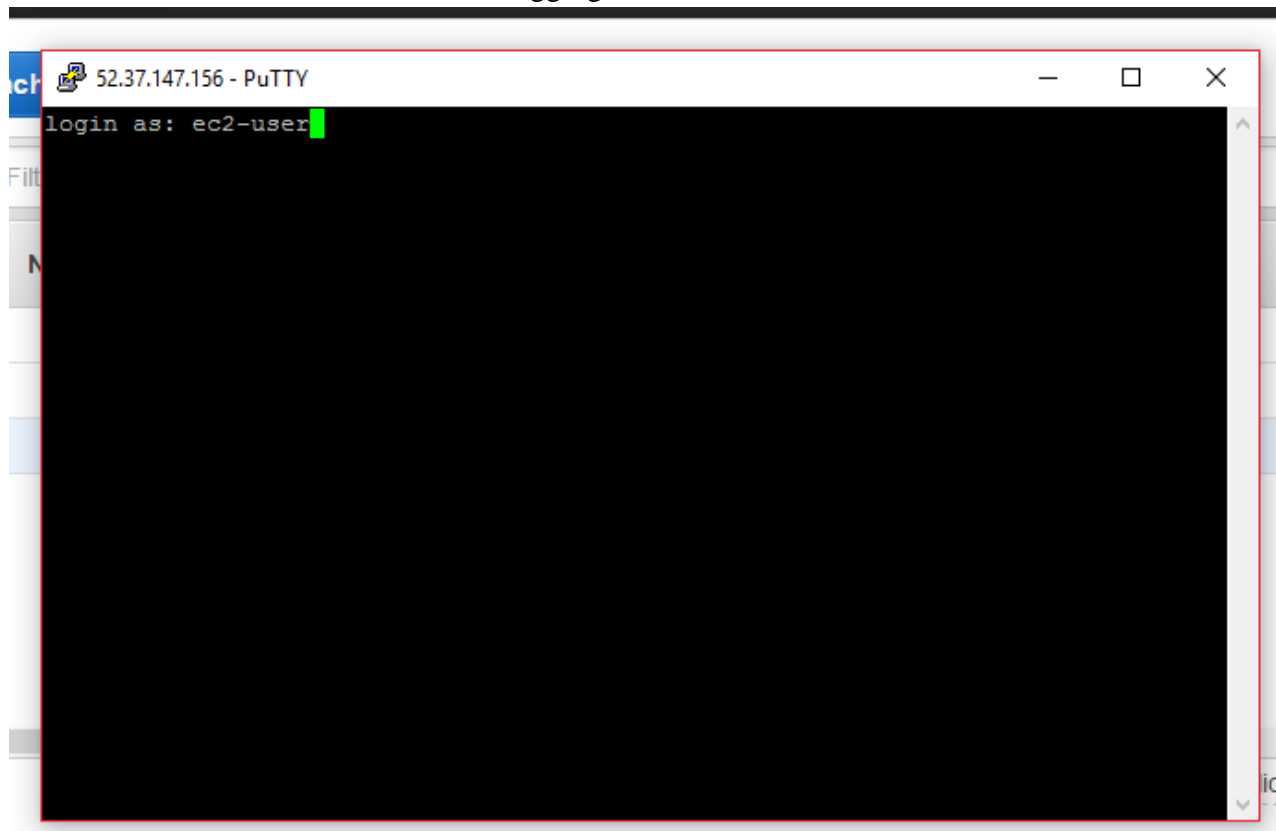
12. Using putty we can generate our key for connection



13. Using putty we convert the .ppk key file required for server connection



14. Once it convert the file we can logging to Linux server



```
ec2-user@ip-172-31-43-164:~  
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/  
1 package(s) needed for security, out of 1 available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-43-164 ~]$
```