



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

**Enterprise Standards and Best Practices for IT Infrastructure**

**4<sup>th</sup> Year 2<sup>nd</sup> Semester 2016**

## **Amazon EC2 Linux Instances**

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Group Number: Group 02

Practical Session: <WD Friday>

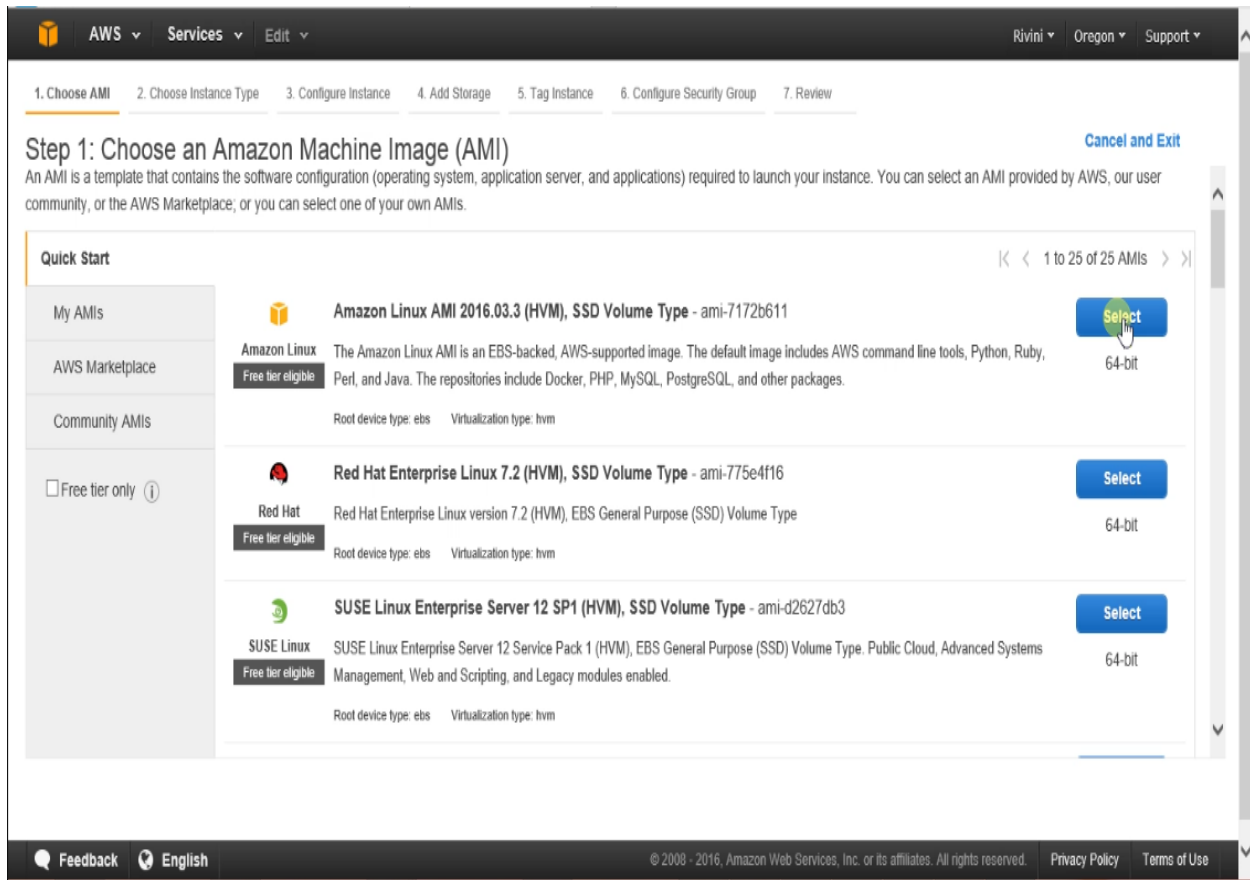
Practical Number : <Lab 2 >

Date of Submission: 31-07-2016

Date of Evaluation : \_\_\_\_\_

Evaluators Signature : \_\_\_\_\_

## 1. Choose an Amazon Machine Image: Amazon Linux Server



**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.

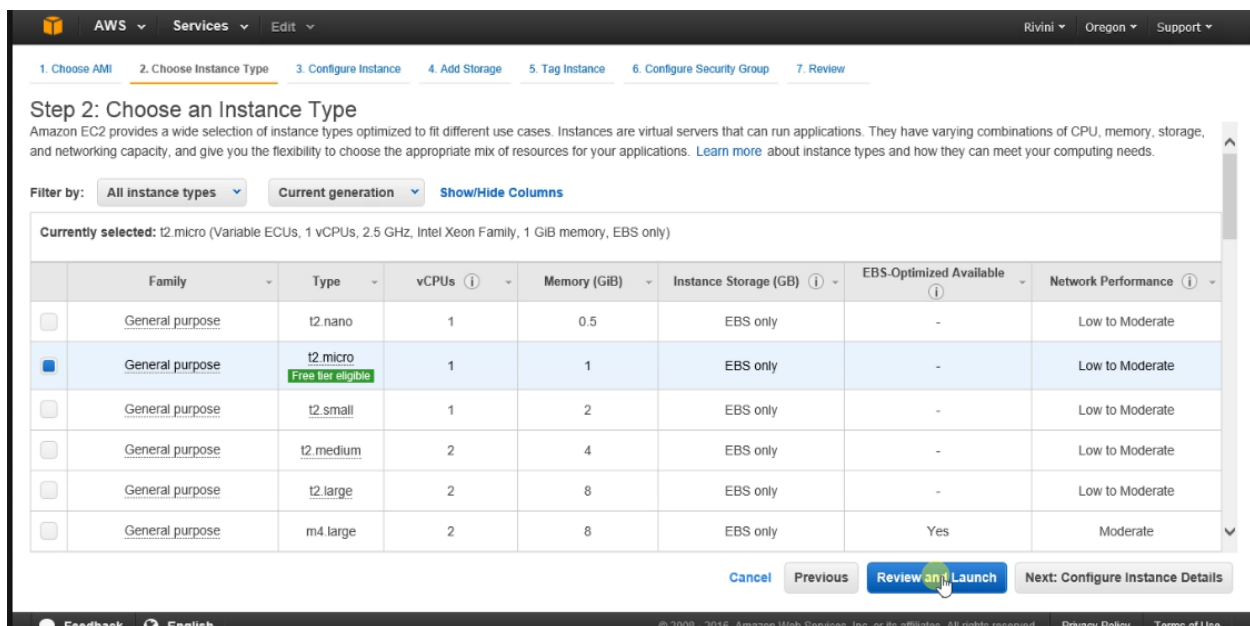
**Quick Start**

My AMIs | AWS Marketplace | Community AMIs

☐ Free tier only ⓘ

Family	AMI Name	Root device type	Virtualization type	Action
Amazon Linux	Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611	ebs	hvm	Select
Red Hat	Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-775e4f16	ebs	hvm	Select
SUSE Linux	SUSE Linux Enterprise Server 12 SP1 (HVM), SSD Volume Type - ami-d2627db3	ebs	hvm	Select

## 2. Choose an Instance type: General Purpose



**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	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

### 3. Configure Instances

**Step 3: Configure Instance Details**

**Purchasing option** ⓘ ☐ Request Spot instances

**Network** ⓘ vpc-4df08e29 (172.31.0.0/16) (default) [Create new VPC](#)

**Subnet** ⓘ No preference (default subnet in any Availability Zone) [Create new subnet](#)

**Auto-assign Public IP** ⓘ Use subnet setting (Enable) [Create new IAM role](#)

**IAM role** ⓘ None [Create new IAM role](#)

**Shutdown behavior** ⓘ Stop

**Enable termination protection** ⓘ ☐ Protect against accidental termination

**Monitoring** ⓘ ☐ Enable CloudWatch detailed monitoring  
Additional charges apply.

**Tenancy** ⓘ Shared - Run a shared hardware instance  
Additional charges will apply for dedicated tenancy.

▶ **Advanced Details**

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

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### 4. Add Storage

**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](#)

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## 5. Configure Security Group

**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:**

**Description:**

Type	Protocol	Port Range	Source
SSH	TCP	22	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](#)

## 6. 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.

**Improve your instances' security. Your security group, launch-wizard-4, 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 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

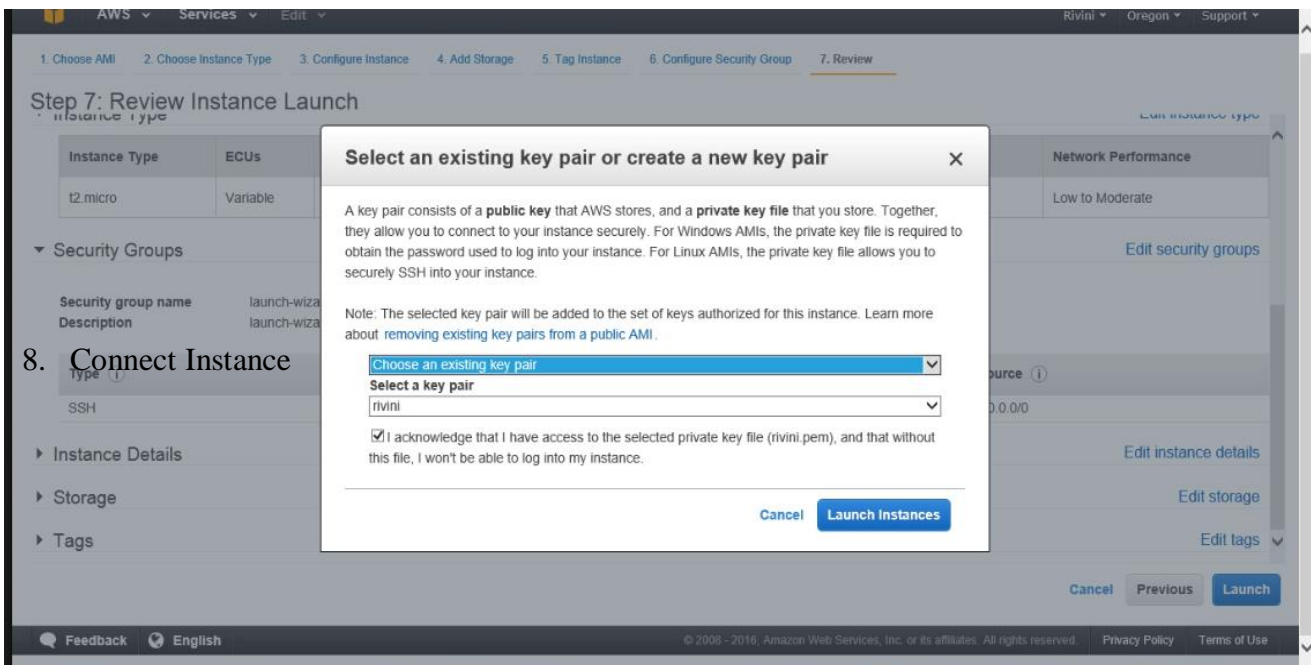
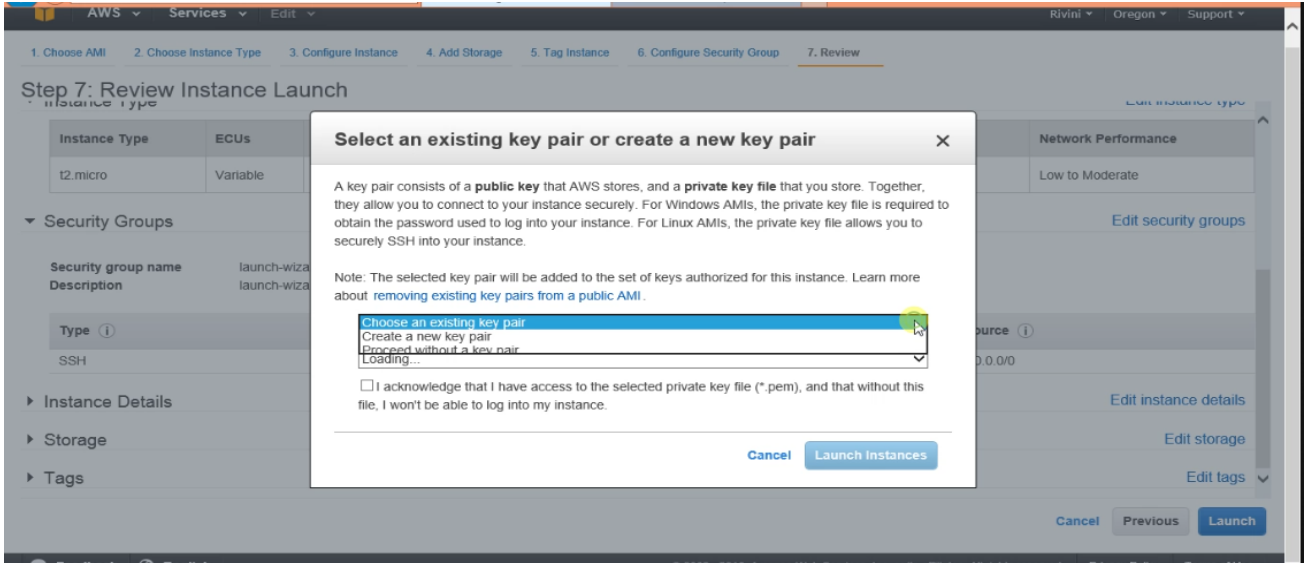
**Instance Type** [Edit instance type](#)

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](#)

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

## 7. Launch Instances



## 8. Connect Instance

AWS Services Edit Rivini Oregon Support

EC2 Dashboard  
Events  
Tags  
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INSTANCES  
Instances  
Spot Requests  
Reserved Instances  
Scheduled Instances  
Dedicated Hosts

IMAGES  
AMIs  
Bundle Tasks

ELASTIC BLOCK STORE  
Volumes  
Snapshots

NETWORK & SECURITY  
Security Groups  
Elastic IPs

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
	i-052b73e71b818a3...	t2.micro	us-west-2b	running	Initializing	Loading...	ec2-52-36-102-71.us-w...

network interfaces: eni-  
Source/dest. check: True  
EBS-optimized: False  
Root device type: ebs  
Root device: /dev/xvda  
Block device: /dev/xvda

IAM role: -  
Key pair name: rivini  
Owner: 354564266103  
Launch time: July 30, 2016 at 8:21:14 PM UTC+5:30 (less than one hour)  
Termination protection: -  
Lifecycle: normal  
Monitoring: basic

Feedback English

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AWS Services Edit Rivini Oregon Support

EC2 Dashboard  
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Launch Instance Connect Actions

Filter by tags

Connect To Your Instance

I would like to connect with

☐ A standalone SSH client

☒ A Java SSH Client directly from my browser (Java required)

Enter the required information in the fields below to connect to your instance. AWS automatically detects the key pair name, and Public DNS for your instance. You need to enter the location and name of the .pem file containing your private key.

Public DNS: ec2-52-36-102-71.us-west-2.compute.amazonaws.com

User name: ec2-user

Key name: rivini.pem

Private key path: G:\Downloads\

Save key location: ☐ Store in browser cache

Launch SSH Client

Close

Alarm Status: Loading... Public DNS: ec2-52-36-102-71.us-w... 52

Key pair name: 354564266103

Owner: 354564266103

Launch time: 2016 at 8:21:14 PM UTC+5:30 (less than one hour)

Termination protection: -

Lifecycle: normal

Monitoring: basic

Feedback English

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Check connection using putty

