

Name of candidate:	Mareena Mark Fernandes	
Roll no.: 8669	Year: TE	Semester:-VI
Branch: IT	Subject: Cloud Service Design Lab	
Experiment No.: 6	Date of performance:	Date of submission:
CO's Covered: LO4		

Rubrics for Practical

Indicator	Poor	Average	Good	Excellent
Timeline (3)	More than two weeks late (0)	Two weeks late (1)	One week late (2)	Early or on time (3)
Knowledge (3)	Not Able to answer any Question (0)	Able to answer a Question (1)	Able to answer few Questions (2)	Able to answer all questions (3)
Performance (4)	Able to partially perform the experiment (1)	Able to perform the experiment for certain extent (2)	Able to perform the experiment with support (3)	Able to perform the experiment considering all aspects (4)
Rubrics	Timeline(3)	Knowledge(3)	Performance(4)	Total (10)
Score				

Signature of faculty:

Instances (EC2 Management) | X

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Instances

HDPC Bank Partner... | Power Help and Educat... | Photopia | Online Pro...

Services | Search for services, features, marketplace products, and docs | [Alt+S]

More AWS | Mumbai | Support

New EC2 Experience | Tell us what you think

EC2 Dashboard | Events | Tags | Limits

Instances | Instances | Instance Types | Launch Templates | Spot Requests | Savings Plans | Reserved Instances | Dedicated Hosts | Capacity Reservations

Images | AMIs

Welcome to the new Instances experience! We're redesigning the EC2 console to make it easier to use. To switch between the old console and the new console, use the New EC2 Experience toggle above the navigation panel. We'll release updates continuously based on customer feedback.

Instances (1) | info | Convert | Instance state | Actions | Launch Instances

Filter instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
8669_CC_exp6	i-01e486cce491795fc	Running	t2.micro	2/2 checks passed	No alarms	ap-south-1b

Select an instance above

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EC2 Management Console | X

https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#AddressPublicIp=i-01e486cce491795fc

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Reserved Instances | Dedicated Hosts | Capacity Reservations

Images | AMIs

Elastic Block Store | Volumes | Snapshots | Lifecycle Manager

Network & Security | Security Groups | Elastic IPs | Placement Groups | Key Pairs | Network Interfaces

Load Balancing | Load Balancers

English (US)

Elastic IP address associated successfully. Elastic IP address 13.233.57.255 has been associated with instance i-01e486cce491795fc.

Elastic IP addresses (1/1) | Actions | Allocate Elastic IP address

Filter Elastic IP addresses

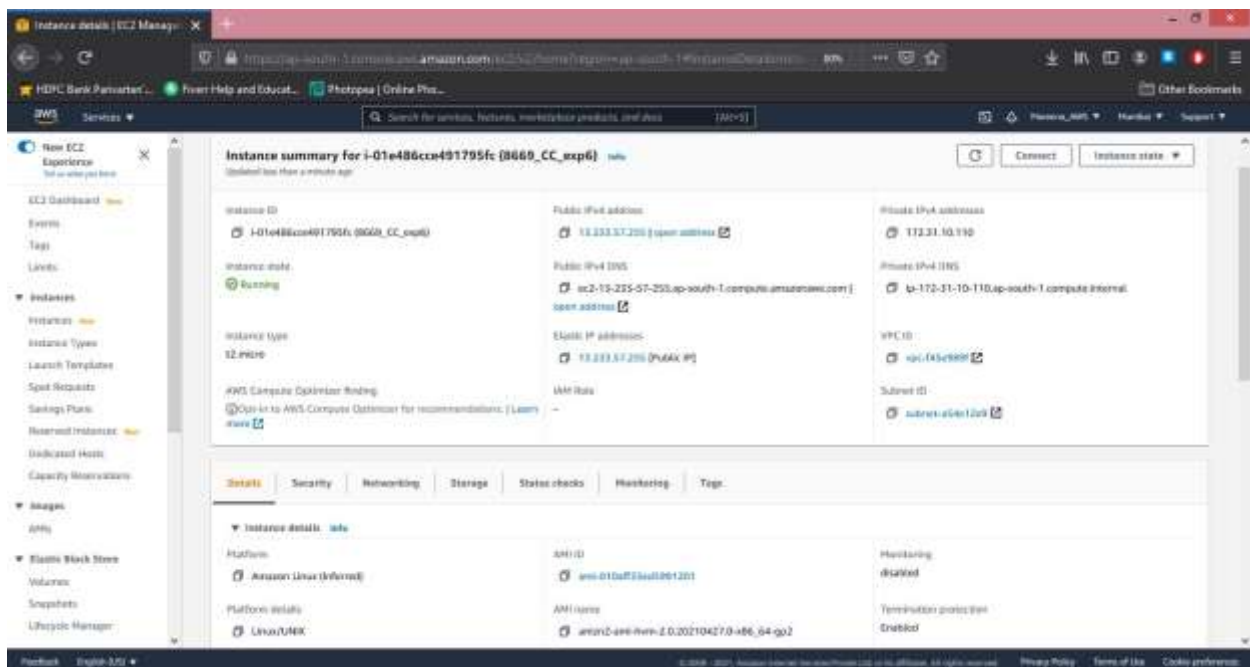
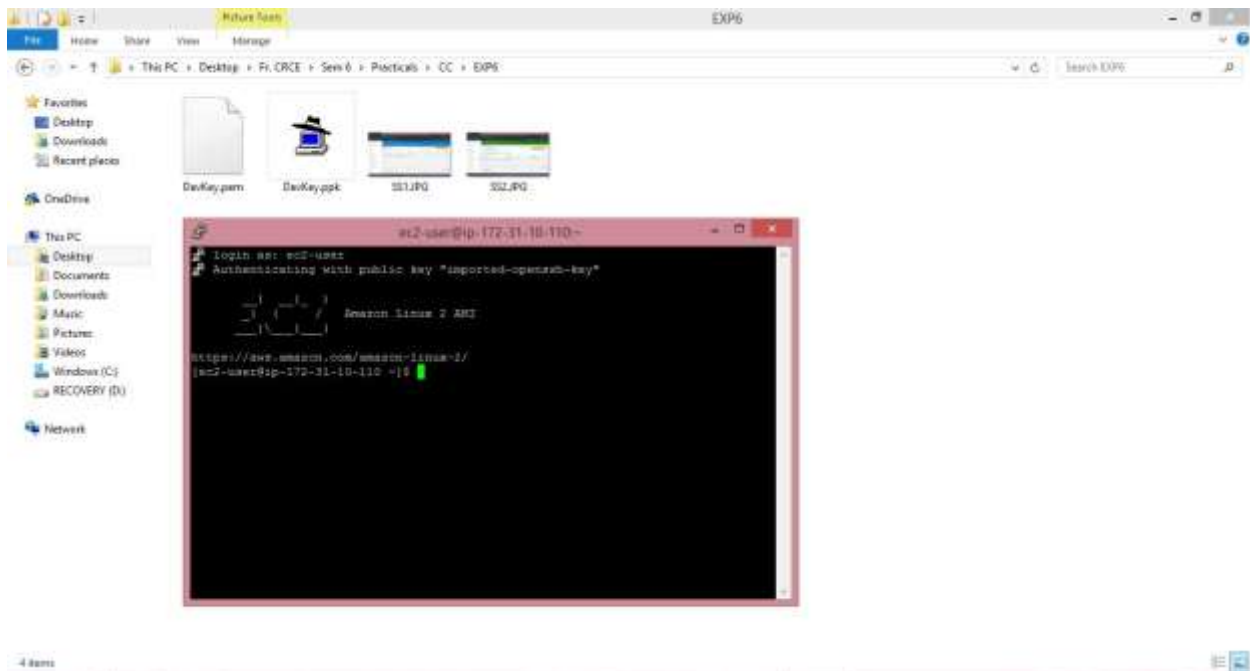
Public IPv4 address: 13.233.57.255 | Clear filters

Name	Allocated IPv4 address	Type	Allocation ID	Associated Instance
—	13.233.57.255	Public IP	eipalloc-0c4ec5daf19e15574	i-01e486cce491795fc

13.233.57.255

Summary | Tags

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Post-Lab Questions:

1. Discuss Amazon Web Services EC2 in detail

Ans:

- a) Amazon EC2 (Elastic Compute Cloud), one of Amazon Web Services' most well-known services, offers businesses the ability to run applications on the public cloud.
- b) Developers can create instances of virtual machines and easily configure the capacity scaling of instances using the EC2 web interface.
- c) EC2 also allows users to build apps to automate scaling according to changing needs and peak periods, and makes it simple to deploy virtual servers and manage storage, lessening the need to invest in hardware and helping streamline development processes.
- d) EC2 pricing is based on the hours and size of an instance, region, and operating system.

Features:

- a) A number of benefits and features draw developers to EC2 for cloud computing. Chief among these is:
- b) Responsiveness to changing capacity requirements: The easy scaling of EC2 eliminates development obstacles that occur when applications require more resources.
- c) Flexibility in configurations: Users can choose memory size, CPU, and boot partition size optimized for the OS they choose.
- d) Integration: EC2 can integrate with other AWS services, such as RDS, Simple DB, and SQS.
- e) Precise control: Users get administrative access to their instances, can stop and start instances while retaining boot partition data, and can access console output for the instance.
- f) Security: Users can control which instances remain private and which have internet exposure. EC2 leverages Amazon Virtual Private Cloud (VPC) for security, and businesses can connect their secure IT infrastructure to resources in VPC.
- g) Cost: Among a number of pricing options, EC2 offers affordable hourly rates.

Resizability:

You can resize instances in Amazon EC2 if the new instance types are compatible by

- a) Virtualization type: Linux AMIs are either paravirtual (PV) or hardware virtual machines (HVM). You cannot resize an instance that was launched as a PV to an instance of HVM.
- b) Architecture: New instances types can only be launched to the same processor architecture. For example, 32-bit AMIs can only be resized to other 32-bit instances.
- c) Network: You cannot resize to an EC2-Classic from newer instance types. Newer instance types must be launched in a VPC.
- d) Enhanced networking: Enhanced networking requires necessary drivers, and you cannot resize to an instance that does not support them.
- e) NVMe: To resize to instances that use NVMe, you must first install the NVMe drivers on your existing instance.

Benefits:

One of the main benefits of AWS EC2 is its elastic load balancing. This automatically distributes incoming application traffic across several instances, while also identifying unhealthy instances and rerouting traffic to the healthy versions until restored. Additional benefits include:

- a) EC2 reduces the time to boot new servers
- b) Scaling capacity based on changes to computing requirements
- c) Complete control of servers
- d) Flexibility with operating systems
- e) Built-in security