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Experiment No : 4

Aim : To study and implement Infrastructure as a Service using AWS.

Theory :

- The objective of this experiment is to study and implement Infrastructure as a Service (IaaS) using AWS.
- The focus will be on Amazon EC2 including the creation and management of instances, Amazon Machine Images (AMI), various types of EC2 computing instances, Elastic IP address and accessing Windows virtual machines using Remote Desktop Protocol. (RDP)

1) **Amazon EC2**

⇒ Amazon EC2 is a web service that provides resizable compute capacity in the cloud.

- It is designed to make web-scale cloud computing easier for developers.
- EC2 instances are virtual servers in the cloud that can run applications.

2) **Amazon Machine Images (AMI)**

⇒ An AMI is a pre-configured virtual machine image, which is used to create EC2 instances.

- It contains necessary information to launch an instances, including the OS, application server and applications.

3) Types of EC2 Computing Instances:

⇒ EC2 instances come in various types optimized for different use cases, including compute-optimized, memory-optimized, storage-optimized and GPU instances.

- For eg.: t2.micro, m3.large, etc.

4) Elastic IP address

⇒ An elastic IP address is a static IPv4 address designed for dynamic cloud computing.

- It can be associated with EC2 instances, providing a consistent IP address even if the instance is stopped and started.

5) Remote desktop Protocol (RDP)

⇒ RDP is a proprietary protocol developed by Microsoft, which provides a user with a graphical interface to connect to another compute over a network connection.

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