Cloud Computing

What is Cloud Computing?

- Cloud computing is the on-demand delivery of IT resources (compute, storage, applications....) through a cloud services platform (AWS) via the internet with pay-as-you-go pricing.
- Accessing IT resources provided by cloud provider (AWS) through web.
- Three key words

1. On – Demand (Whenever/whatever we need, we get immediately)
2. Scalable (Increase and Decrease the configuration as per requirement)
3. Pay only whatever you use

EC2

- EC2 is one of the famous Amazon web services by using which we can launch any number of Instances (Servers) as per our required configuration with in fraction of minutes.
- After launching Instances, we can increase and decrease the configuration as per our requirement without stopping the Instance.
- This service (EC2) we use more in companies.
- To launch an Instance, we need to select below

AMI (Amazon Machine Image):-

. AMI is simply an Operating system in AWS. AWS has provided some pre-defined Operating Systems of both windows and Linux. We have to choose OS from AWS provided list only. We can't bring any OS form outside into AWS.

UNIX flavors

- Linux
- Mac OS
- AIX
- Solaris
- HP-UX

Linux Flavors

- RHEL (Red Hat Enterprise Linux)
- Cent OS
- Ubuntu
- Amazon Linux
- Fedora
- Linux Mint
- Opens SUSE

EC2 Instance Types

	Family	Type	vCPUs	Memory (GiB)
☐	General purpose	t2.nano	1	0.5
☑	General purpose	t2.micro Free tier eligible	1	1
☐	General purpose	t2.small	1	2
☐	General purpose	t2.medium	2	4
☐	General purpose	t2.large	2	8
☐	General purpose	t2.xlarge	4	16
☐	General purpose	t2.2xlarge	8	32
☐	General purpose	t3.nano	2	0.5
☐	General purpose	t3.micro	2	1

Instance type:-

Here we are going to choose CPU Cores and RAM. AWS is giving them as pairs. AWS paired best possible combinations form which we get maximum performance. These pairs we call as instance types.

EBS (Elastic Block Storage):-

EBS is simply a Hard disk that we attach to Instances. We can choose any amount of hard disk. We can have any no of drives as well. In this hard disk, we can keep both Operating System as well as Objects (MP3, MP4, Pictures, Documents.....)

- EBS allows you to create storage (Volumes)

  (Object storage: MP3, MP4, pictures, documents.....)

  (Block storage: OS, Data Bases)

- When we combine above all, we will get our required configured Server. That server in AWS we call as Instance.
