

ELASTIC COMPUTE CLOUD (EC2)

- Amazon EC2 Provides Scalable Computing capacity in the AWS cloud.
- You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and Networking and manage storage.
- Amazon EC2 enables you to scale up and scale down the instance.
- Amazon EC2 is having two storage options i.e. EBS and instance store.
- Preconfigured templates are available known as amazon machine image.
- By default, when you create an EC2 account with amazon your account is limited to a maximum of 20 instances per EC2 region.

EC2 ACCESS:

- To access instances, you need a key and key-pair name.
- You can download the private key only once.
- The public key is saved by AWS to match it to the Key pair name and private key when you try to login to the EC2 instances.
- Without Key pair you cannot access via instance via RDP or SSH (Linux)

EC2 STATUS CHECK:

- **INSTANCE CHECK:** Hardware issue we have to manage check cpu/ram, network, Storage, Logs
- **SYSTEM CHECK:** Server issues will managed by AWS do just **stop** and **start**.

EC2 TERMINATION:

- When you terminate a running instance, the instance state change as follows: Running-----> Shutting down ----->terminate
- During the shutting down and terminated state you do not incur charges.
- By default, EBS root devices volumes are deleted automatically when the EC2 instances are terminated.
- Any additional (non boot /boot) volumes attached to the instances by default persist after the instance is terminated.

- You can modify both behaviours by modifying the “delete on termination” attributes of any EBS volumes during instances launch or while running.
- Enable “EC2 termination protection “against accidental termination

EC2 METADATA:

- This is the instance data that you can use to configure or manage the instance.
- E.g. IPV4 address IPV6 address, DNS hostname, AMI-id, instance id, Instance type, local hostname, public keys, and security groups.
- Metadata can be only viewed from within the instance itself i.e you have to login to the instance.
- Metadata is not protected by encryption; anyone that has access to the instance can view this data.
- To view instance metadata: GET <http://169.254.169.254/latest/Metadata>

INSTANCES USER DATA:

- Data Supplied by the user at instances launch in the form of a Script to be executed during the instance boot.
- User data is limited to 16KB
- You can change user data, by stopping EC2 first.
- User data is not encrypted EC2 bare metal instances.
- Non virtualized environment.
- Operating system runs directly on hardware.

ELASTIC BLOCK STORAGE:

- Most Common replicated with A-Z EBS volumes attached at launch are deleted when instance terminate.
- EBS volumes attached to a running instance are not deleted when instance is terminated but are detached with data intact.