Can be accessed by three ways

1.Console

2.CLI

3.SDK

**---------------------------------Compute Services -----------------------------**

**1) EC2** (iaas) --> Elastic Compound Cloud -- Its a service that helps to launch servers,ec2 instainstancesncdes or instances or VM inside AWS Cloud

1. AMI -- Amazon Machine Image --> OS, Additional , Software Package

2. Instance Type --> RAM, Type of Storage Device , Virtual CPUs , n/w performance.

3. Security group --> Application access based on users

ELB --> Elastic Load Balancer --> Balances the loads coming to the server

1. It distributes the income traffic between registered healthy ec2 instances

2. It performace health checks on the ec2 instances

3. It provides a single end-point

Using EC2 we can launch three types of service

1. On Demand Instancs ---> can we launched at any point of time and deregister at any point of time

2. reserved Instances (Less expensive than On Demand)---> The instance must be used for atleast for an year or 3 yr.

3.Spot Instances (very low cost)---> these are free instances avaiable in aws .cannot be used for critical applications.Need to do bidding ..

Auto Scaling --> Instances are launched and terminated based on the load..Its a feature in AWS..

Horizontal scaling (Auto Scaling) -- Incresing new servers / instances

1. Launch Configuration ---> Its a template thats going to be used by automatically launching ec2 instances..

2.Auto Scaling Group (ASG) ---> Auto Scaling Policy and parameter (Scaling based on CPU utilization ,n/w in bytes , n/w out bytes )

**2) Elastic Beanstalk (PaaS) :** It takes full control in launching the Instance (takes its own ram , os ,space). customer will not have the control in specifiying the configurations of the instances.

**3) Lambda (Chargable Service) :** Its Serverless code running. Code is run in response to an event. Ex: when a new video is loaded in to aws using (s3) , need to create a thumbnail of the video uploaded.

**-----------------------Storage Services--------------------------------**

1. **EBS (Elastic Block store) volumes**

It’s a type of block storage devices..

Usually used for ecs 2 instances..

Can be attached only to one EC2 instance at a time (Like external hdd). Cannot be attached to multiple ecs

Ec2 and EBS volumes should be available in the same Availability Zone.

We can create EBs Volumes in two ways:

1. Independently
2. While launching EC2

2. **S3 (Simple Storage Service)** -- object level storage device

Bucket (is a root folder)

**Storage Classes:**

There are 6 types.

Life Cycle rules – used for changing the storage classes using automation

3. **EFS** -🡪 Elastic File system ..

Can be attached to multiple EC2 instance unlike EBS.

Its like shared file system

**----------------------------Database Services --------------------------**

1. RDS – Relational database service (Amazon Aurora, mysql , postgresql,mariadb,oracle,ms sql server)

2. Dynamo Db – No Sql

3. redshift – (amazon’s data ware house)

**-------------------------------------Networking Services ---------------------------**

**1.VPC** – Virtual Private cloud 🡪 It helps to create private n/w inside aws cloud.

CIDR – it’s a method of specifying the IP inside the network

NCAL – network access control list – useful in creating firewall inside vpc

**2.CloudFront**

**3. Route53** – DNS service by aws.. (helps in matching the domain name to IP iaddress)

**-------------------Developer tools ------------**

**1.** CodeCommit <-- > github (Versioning Control Tool)

2. CodeBuild <--> Jenkins or maven

3. CodeDeploy < -- > Helps in deploying the code on the server

4 CodePipeline – helps in automating the above process

**---------------Management Services------------**

1. Cloudwatch – Monitoring AWS resources –Alarms

Basic monitoring (free) and detailed monitoring (Chargeable)

2. CloudTrail -- IAM accounts