

# AWS Interview

## 1. What is AWS?

- AWS stands for Amazon Web Services. It is a service which is provided by the Amazon that uses distributed IT infrastructure to provide different IT resources on demand. It provides different services such as an infrastructure as a service, platform as a service, and software as a service.

## 2. How can we use one AMI in different region?

- We need to copy the AMI to different region then we can use it.

## 3. Can we copy AMI from one account to another account? Give explanation for your answer.

- Yes, We need to share the AMI with another aws account.
- Then we need to share the AMI EBS storage as well with another account.
- Give the permission to copy the AMI
- Login to another account, go to the region, then AMI, then private AMI, select the AMI and copy it.

## 4. Can we transfer a ec2 instance from one region to another or one zone to another zone? Give explanation for your answer.

- No we can not however, We need to convert the ec2 into AMI and then copy the AMI in different region or even in different account and launch the ec2

#### 5. How can you connect make connectivity between on-premises to AWS?

- VPC VPN
- Transit Gateway
- Storage gateway for S3 data
- Direct Connect

#### 6. What is NAT gateway?

- NAT gateway is the service of AWS which make a connectivity between private instance to internet. And this connection is one way means only instance will able to connect with internet but not vice versa

#### 7. What is the difference between NAT Gateway and NAT Instance

- NAT gateway is AWS managed service, there is no any issue of bottleneck, bandwidth, high availability
- NAT instance is ec2 server which need to manage manually (in terms of patches), bandwidth and traffic load will depends on the instance type we selected.

#### 8. What is bastion Host?

- Bastion host is the ec2 server in public subnet and has access to connect with ec2 instance in private subnet

### 9. What is difference between public and private subnet

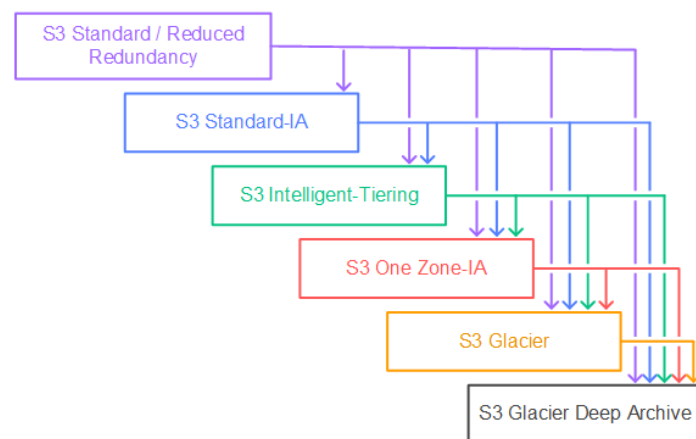
- Route table of public subnet has internet gateway, and instance in this subnet able to connect with internet. Whereas route table of private subnet do not have internet gateway, so it does not able to connect with internet.

### 10. What is state less and Statefull security in AWS

- NACL is called stateless security in AWS because outbound traffic in newly created NACL is blocked, we need to explicitly enable it, otherwise no traffic will go away from subnet. And it applies at subnet level
- Security group is called statefull security in AWS because outbound traffic is allowed. And it applied at instance level.

### 11. What is storage lifecycle

- Amazon S3 supports a waterfall model for transitioning between storage classes, as shown in the following diagram.
- But it is not mandatory to include all all the transitions in one rule. We can skip and add the transitions as per our requirement.



### 12. Difference between EFS and EBS

- EFS stands for elastic file system which works at NFS protocol and can be mount at multiple server at same time, however EBS is elastic block storage and can be attached with one instance at one time.

### 13. Why should we need to assign EIP

- When instance is launched and a public IP assigned to instance which is not persistent and change after shutdown and power on. But EIP is elastic IP which will never change until we will not unassigned or change it.
- EIP could be chargeable in few of the scenarios however the dynamic allocated public IP is not chargeable

#### 14. What is difference between ALB and ELB

- ALB stands for application load balancer, which facilitate us to distribute the load between the instance on the basis of protocol. It works at 7th layer of OSI model
- Whereas ELB allow the loadbalacing between instance only
- Network load balancer works at 4th layer of OSI model, it reduce the latency and can handle millions of requests per second. But it will only work for TCP and UDP protocol (4th Layer)

#### 15. What is difference between terraform and CloudFormation

- Both are infra automation tool and can use to automate the infra design on AWS.
- Cloud formation is product to AWS and can be use to automate infra on AWS cloud
- Whereas terraform is an opensource and can use to automate the infra on any cloud.
- It is product of Hashicorp. It is cloud-agnostic

#### 16. How many storage options available in AWS

- S3
- EBS
- EFS
- Galacier

#### 17. What is IAM Policy

- Policy is the set of permission which we can assign it to user and group. Accordingly user will use the resources of AWS account

### 18. What is AWS Lambda?

- **AWS Lambda is a compute service that runs your code without managing servers. Lambda functions run your code whenever needed. You need to pay only when your code is running.**

### 19. Explain horizontal and vertical scaling in AWS?

- **Horizontal scaling means instance the compute resource like adding ec2.**
- **Vertical scaling means change the instance type to increase the hardware capacity.**

### 20. What are the main differences between AWS and Openstack?

- **Both AWS and OpenStack are indulged in providing cloud computing services to their users. AWS is owned and distributed by Amazon, whereas OpenStack is an open-source cloud computing platform. AWS offers various services in cloud computing and offers IaaS, PaaS,**

### 21. What are the advantages of auto-scaling?

- **Following are the advantages of auto-scaling:-**
- **Offers fault tolerance**
- **Better availability**
- **Better cost management**

## 22. List the different types of cloud services?

- Various types of Cloud Services are:
  - Software as a Service (SaaS),
  - Platform as a Service (PaaS)
  - Infrastructure as a Service (IaaS).

## 23. What are the storage classes available in Amazon S3?

- The Storage Classes available with Amazon S3 are:
- Amazon S3 standard
- Amazon S3 standard-infrequent Access
- Amazon S3 Reduced Redundancy Storage

## 24. How many buckets can be created in S3?

- 100 buckets

## 25. What is the Difference between Amazon S3 and EC2?

### S3

- It is a storage service where it can store any amount of data.
- It consists of a REST interface and uses secure HMAC-SHA1 authentication keys.

## EC2

- It is a web service used for hosting an application.
- It is a virtual machine which can run either Linux or Windows and can also run the applications such as PHP, Python, Apache or other databases.

### 26.What are the roles?

- Roles are used to provide permissions to entities which you can trust within your AWS account. Roles are very similar to users. However, with roles, you do not require to create any username and password to work with the resources.

### 27.Explain Snowball?

- Snowball is a data transport option. It used source appliances to a large amount of data into and out of AWS. With the help of snowball, you can transfer a massive amount of data from one place to another. It helps you to reduce networking costs.

### 28.Name some of the DB Engines which can be used in AWS RDS?

- Some of the DB Engines which can be used in AWS RDS are:-
- MS-SQL DB
- MariaDB
- MYSQL DB
- PostgreDB

### 29. What are the different types of Load balancer in AWS services?

- Two types of Load Balance are:
- Application Load Balancer
- Classic Load Balancer

### 30. What is Amazon EMR?

- EMR is a managed cluster service which helps you to interpret the working of data structures before the intimation. Apache Hadoop and Apache Spark on the Amazon Web Services helps you to investigate a large amount of data. You can prepare data for the analytics goals and marketing intellect workloads using Apache Hive and using other relevant open source designs.

### 31. Name the types of AMI provided by AWS?

- The types of AMI provided by AWS are:
  - Instance store backed
  - EBS backed.

### 32. What is the role of AWS CloudTrail?

- CloudTrail is a specially designed tool for logging and tracking API calls. It helps to audit all S3 bucket accesses.

### 33. What is meant by subnets?

- A large section of IP Address divided into chunks as Subnets.

### 34. What is difference between cloudtrail and Cloudwatch

- Cloudtrail is audit service provided by AWS, which help to make the account compliant. Whereas Cloudwatch is the logging and monitoring service in AWS