# Q1) What is AWS?

AWS stands for Amazon Web Services. AWS is a platform that provides on-demand resources for hosting web services, storage, networking, databases and other resources over the internet with a pay-as-you-go pricing.

# Q2) What are the components of AWS?

EC2 – Elastic Compute Cloud, S3 – Simple Storage Service, Route53, EBS – Elastic Block Store, Cloudwatch, Key-Paris are few of the components of AWS.

# Q3) What are key-pairs?

A key pair is a set of security credentials used to connect to an EC2 instance. It consists of a public key (stored on the instance) and a private key (kept secure by the user).

# Q4) What is S3?

S3 stands for Simple Storage Service. It is a storage service that provides an interface that you can use to store any amount of data, at any time, from anywhere in the world. With S3 you pay only for what you use and the payment model is pay-as-you-go.

# Q5) What are the pricing models for EC2instances?

The different pricing model for EC2 instances are as below,

* On-demand
* Reserved
* Spot
* Scheduled
* Dedicated

# Q6) What are the types of volumes for EC2 instances? There are two types of volumes,

* Instance store volumes
* EBS – Elastic Block Stores

# Q7) What are EBS volumes?

EBS stands for Elastic Block Stores. They are persistent volumes that you can attach to the instances. With EBS volumes, your data will be preserved even when you stop your instances, unlike your instance store volumes where the data is deleted when you stop the instances.

# Q8) What are the types of volumes in EBS?

Following are the types of volumes in EBS,

General purpose

Provisioned IOPS

Magnetic

Cold HDD

Throughput optimized

# Q9) What are the different types of instances?

Following are the types of instances,

* General purpose
* Computer Optimized
* Storage Optimized
* Memory Optimized
* Accelerated Computing

# Q10) What is an auto-scaling and what are the components?

Auto scaling allows you to automatically scale-up and scale-down the number of instances depending on the CPU utilization or memory utilization. There are 2 components in Auto scaling, they are Auto-scaling groups and Launch Configuration.

# Q11) What are reserved instances?

Reserved instances are the instance that you can reserve a fixed capacity of EC2 instances. In reserved instances you will have to get into a contract of 1 year or 3 years.

# Q12)What is an AMI?

AMI stands for Amazon Machine Image. AMI is a template that contains the software configurations, launch permission and a block device mapping that specifies the volume to attach to the instance when it is launched.

# Q13) What is an EIP? EIP stands for Elastic IP address. It is designed for dynamic cloud computing. When you want to have a static IP address for your instances when you stop and restart your instances, you will be using EIP address.

# Q14) What is Cloudwatch?

Cloudwatch is a monitoring tool that you can use to monitor your various AWS resources. Like health check, network, Application, etc.

# Q15) What are the types in cloudwatch?

There are 2 types in cloudwatch. Basic monitoring and detailed monitoring. Basic monitoring is free and detailed monitoring is chargeable.

# Q16) What are the cloudwatch metrics that are available for EC2 instances?

Diskreads, Diskwrites, CPU utilization, networkpacketsIn, networkpacketsOut, networkIn, networkOut, CPUCreditUsage, CPUCreditBalance.

**Q17) What is the minimum and maximum size of individual objects that you can store in S3** The minimum size of individual objects that you can store in S3 is 0 bytes and the maximum bytes that you can store for individual objects is 5TB.

# Q18) What are the different storage classes in S3?

Following are the types of storage classes in S3,

* Standard frequently accessed
* Standard infrequently accessed • One-zone infrequently accessed.
* Glacier
* RRS – reduced redundancy storage

# Q19) What is the default storage class in S3?

The default storage class in S3 in Standard frequently accessed.

# Q20) What is glacier?

Glacier is the back up or archival tool that you use to back up your data in S3.

# Q21) How can you secure the access to your S3 bucket?

There are two ways that you can control the access to your S3 buckets,

* ACL – Access Control List
* Bucket polices

# Q22) How can you encrypt data in S3?

You can encrypt the data by using the below methods,

* Server Side Encryption – S3 (AES 256 encryption)
* Server Side Encryption – KMS (Key management Service)
* Server Side Encryption – C (Client Side)

# Q23) What are the parameters for S3 pricing The pricing model for S3 is as below,

# Storage used

# Number of requests you make

# Storage management

# Data transfer

# Q24) What is the pre-requisite to work with Cross region replication in S3?

You need to enable versioning on both source bucket and destination to work with cross region replication. Also both the source and destination bucket should be in different region.

# Q25) What are roles?

Roles are used to provide permissions to entities that you trust within your AWS account. Roles are users in another account. Roles are similar to users but with roles you do not need to create any username and password to work with the resources.

Example – Giving S3 permission to EC2 to access S3 Bucket Contents.

# Q26) What are policies and what are the types of policies?

Policies are permissions that you can attach to the users that you create. These policies will contain that access that you have provided to the users that you have created. There are 2 types of policies.

Example – Giving permission to user to access the S3 Buckets.

1. Managed Policies: Predefined by AWS or created by users, these policies can be reused across multiple entities.

AWS Managed Policies

Customer Managed Policies

2. Inline Policies: Directly attached to a single user, group, or role, offering more control but less flexibility.

# Q27) What is cloudfront?

Amazon CloudFront is a Content Delivery Network (CDN) service provided by AWS. It accelerates the delivery of web content, including websites, APIs, video, and other data, to users by caching content at various edge locations worldwide.

# Q28) What are edge locations?

Edge location is the place where the contents will be cached. When a user tries to access some content, the content will be searched in the edge location. If it is not available then the content will be made available from the origin location and a copy will be stored in the edge location.

# Q29) What is the maximum individual archive that you can store in glacier?

You can store a maximum individual archive of upto 40 TB.

# Q30) What is VPC?

VPC stands for Virtual Private Cloud. VPC allows you to easily customize your networking configuration. VPC is a network that is logically isolated from other network in the cloud. It allows you to have your own IP address range, subnets, internet gateways, NAT gateways and security groups.

# Q31) What is VPC peering connection?

VPC peering connection allows you to connect 1 VPC with another VPC. Instances in these VPC behave as if they are in the same network.

# Q32) What are NAT gateways?

NAT stands for Network Address Translation. NAT gateways enables instances in a private subnet to connect to the internet.

# Q33) How can you control the security to your VPC?

You can use security groups and NACL (Network Access Control List) to control the security

# Q34) What are the different types of storage gateway?

Following are the types of storage gateway.

* File gateway
* Volume gateway
* Tape gateway

# Q35) What is a snowball?

Snowball is a data transport solution that used source appliances to transfer large amounts of data into and out of AWS. Using snowball, you can move huge amount of data from one place to another which reduces your network costs, long transfer times and also provides better security.

# Q36) What are the database types in RDS?

Following are the types of databases in RDS,

* Aurora
* Oracle
* MYSQL server
* Postgresql
* MariaDB
* SQL server

# Q37) What are the different types of Snow Family devices? • Snowcone: Small, portable device suited for transferring up to 10 TB of data.

# • Snowball Edge: Larger device offering compute capabilities alongside storage, ideal for edge computing and local data processing with up to 100 TB storage.

# • Snowball: Designed for migrating massive datasets (up to 100 PB) offline.

# • Snowmobile: Exabyte-scale storage device for extremely large data transfers.

# Q38) What is SNS?

# SNS stands for Simple Notification Service. SNS is a web service that makes it easy to notifications from the cloud. You can set up SNS to receive email notification or message notification.

# Q39) What are the types of routing polices in route53?

Following are the types of routing policies in route53,

* Simple routing
* Latency routing
* Failover routing
* Geolocation routing
* Weighted routing

**Q40) What is the maximum size of messages in SQS**  
The maximum size of messages in SQS is 256 KB.

**Q41) What are the types of queues in SQS?**  
There are 2 types of queues in SQS.

* Standard queue
* FIFO (First In First Out)

# Q42) What is multi-AZ RDS?

Multi-AZ (Availability Zone) RDS allows you to have a replica of your production database in another availability zone. Multi-AZ (Availability Zone) database is used for disaster recovery. You will have an exact copy of your database. So when your primary database goes down, your application will automatically failover to the standby database.

# Q43) What are the types of backups in RDS database?

There are 2 types of backups in RDS database.

* Automated backups
* Manual backups which are known as snapshots.

# Q44) What is the difference between security groups and network access control list?

|  |  |
| --- | --- |
| Security Groups | Network access control list |
| Can control the access at the instance level | Can control access at the subnet level |
| Can add rules for “allow” only | Can add rules for both “allow” and “deny” |
| Evaluates all rules before allowing the traffic | Rules are processed in order number when allowing traffic. |
| Can assign unlimited number of security groups | Can assign upto 5 security groups. |
| Statefull filtering | Stateless filtering |

# Q45) What are Read Replicas in RDS?

# Read Replicas are copies of the primary database that help offload read traffic from the primary instance, improving read scalability and performance.

# Q46) How can you improve the performance of an RDS instance?

# Performance can be improved by using Read Replicas, optimizing queries, selecting the appropriate instance type, and implementing caching solutions.

# Q47) What are the two types of access that you can provide when you are creating users?

# Following are the two types of access that you can create.

1. Programmatic Access: Allows users to interact with AWS services via APIs, CLI, SDKs, or other developer tools. This is used for automation or command-line tasks.

2. Console Access: Grants users the ability to log in and use the AWS Management Console via a web browser. This is typically for users who need to manage AWS resources through the interface.

# Q48) What are the benefits of auto scaling?

Following are the benefits of auto scaling

* Better fault tolerance
* Better availability
* Better cost management

# Q49) What are security groups?

Security groups acts as a firewall that contains the traffic for one or more instances. You can associate one or more security groups to your instances when you launch then. You can add rules to each security group that allow traffic to and from its associated instances. You can modify the rules of a security group at any time, the new rules are automatically and immediately applied to all the instances that are associated with the security group

# Q50) What are shared AMI’s?

Shared AMI’s are the AMI that are created by other developed and made available for other developed to use.

# Q51)What is the difference between the classic load balancer, network load balancer and application load balancer? **Classic Load Balancer (CLB):**

# Layer: Operates at both Layer 4 (Transport) and Layer 7 (Application).

# Use Case: Legacy load balancer, simple and basic load balancing of traffic.

# Features: Supports HTTP, HTTPS, and TCP traffic but lacks advanced features like path-based routing.

# Best for: Simple applications with low or moderate traffic, where advanced routing is not needed.

# **Network Load Balancer (NLB):**

# Layer: Operates at Layer 4 (Transport).

# Use Case: Handles high-performance and low-latency traffic for TCP/UDP.

# Features: Designed for extremely high traffic, supports static IPs, and handles millions of requests per second.

# Best for: Real-time applications requiring high throughput, low latency, and high connection volumes (e.g., gaming or financial systems).

# **Application Load Balancer (ALB):**

# Layer: Operates at Layer 7 (Application).

# Use Case: Advanced load balancing with HTTP and HTTPS support.

# Features: Supports content-based routing (e.g., path- or host-based routing), WebSockets, and advanced request routing.

# Best for: Web applications that need to make routing decisions based on HTTP headers, path, or other advanced rules.

# Q52) By default how many Ip address does aws reserve in a subnet?

5

# Q53) What is meant by subnet?

Subnets are used to segment a VPC into smaller, logical sections to improve security, management, and efficiency of network traffic.

# Q54) How can you convert a public subnet to private subnet?

Remove IGW & add NAT Gateway, Associate subnet in Private route table

**Q55) Is it possible to reduce a ebs volume?**

no it’s not possible, we can increase it but not reduce them

# Q56) What is the use of elastic ip are they charged by AWS?

These are ipv4 address which are used to connect the instance from internet, they are charged if the instances are not attached to it

# Q57) One of my s3 is bucket is deleted but i need to restore is there any possible way?

If versioning is enabled we can easily restore them

# Q58) When I try to launch an ec2 instance i am getting Service limit exceed, how to fix the issue?

By default AWS offer service limit of 20 running instances per region, to fix the issue we need to contact AWS support to increase the limit based on the requirement

# Q59)What is SES, SQS and SNS?

SES (Simple Email Service): SES is SMTP server provided by Amazon which is designed to send bulk mails to customers in a quick and cost-effective manner. SES does not allows to configure mail server.

SQS (Simple Queue Service): SQS is a fast, reliable and scalable, fully managed message queuing service. Amazon SQS makes it simple and cost Effective. **It’s temporary repository for messages to waiting** for processing and **acts as a buffer between the component producer and the consumer.**

SNS (Simple Notification Service): SNS is a web service that coordinates and manages the delivery or sending of messages to recipients.

# Q60) Is it possible to stop a RDS instance, how can I do that?

Yes it’s possible to stop rds. Instance which are non-production and non multi AZ’s

# Q61) An high demand of IOPS performance is expected around 15000.Which EBS volume type would you recommend?

# Provisioned IOPS.

# Q62) What is the use of tags and how they are useful?

Tags are used for identification and grouping AWS Resources

# Q63) I am viewing an AWS Console but unable to launch the instance, I receive an IAM Error how can I rectify it?

As AWS user I don’t have access to use it, I need to have permissions to use it further

# Q64) I don’t want my AWS Account id to be exposed to users how can I avoid it?

In IAM console there is option as sign in url where I can rename my own account name with AWS account

# Q65) By default how many Elastic Ip address does AWS Offer?

5 elastic ip per region

# Q66) You are enabled sticky session with ELB. What does it do with your instance? Binds the user session with a specific instance

# Q67) Which type of load balancer makes routing decisions at either the transport layer or the Application layer and supports either EC2 or VPC. Classic Load Balancer

# Q68) Which is virtual network interface that you can attach to an instance in a VPC?

# Elastic Network Interface

# Q69) Name The Several Layers Of Cloud Computing?

Cloud computing can be damaged up into three main services: Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS). PaaS in the middle, and IaaS on the lowest

# Q70) What is Amazon ElastiCache?

Amazon ElastiCache is a web services that simplifies the setup and management of distributed in memory caching environment.

* Cost Effective
* High Performance
* Scalable Caching Environment
* Using Memcached or Redis Cache Engine

# Q71) What is Amazon EMR ? Amazon Elastic MapReduce (EMR) is one that process large amounts of data quickly and efficiently using popular distributed frameworks like ****Apache Hadoop****.

# Q72) You have an EC2 instance that has an unencrypted volume. You want to create another

**Encrypted volume from this unencrypted volume. Which of the following steps can achieve this?**

Create a snapshot of the unencrypted volume (applying encryption parameters), copy the. Snapshot and create a volume from the copied snapshot

# Q73) Where does the user specify the maximum number of instances with the auto scaling Commands?

Auto scaling Launch Config

# Q74) Which are the types of AMI provided by AWS?

Instance Store backed, EBS Backed

# Q75) After configuring ELB, you need to ensure that the user requests are always attached to a Single instance. What setting can you use?

Sticky session

**Q76) What do you mean by Principal of least privilege in term of IAM.**

Principal of least privilege means to provide the same or equivalent permission to the user/role.

**Q77)What is the meaning of non-explicit deny for an IAM User.**

When an IAM user is created and it is not having any policy attached to it,in that case he will not be able to access any of the AWS Service until a policy has been attached to it.

# Q78) What is the precedence level between explicit allow and explicit deny.

Explicit deny will always override Explicit Allow.

# Q79) What is the benefit of creating a group in IAM. Creation of Group makes the user management process much simpler and user with the same kind of permission can be added in a group and at last addition of a policy will be much simpler to the group in comparison to doing the same thing manually.

# Q80) What is the difference between the Administrative Access and Power User Access in term of pre-build policy.

Administrative Access will have the Full access to AWS resources. While Power User Access will have the Admin access except the user/group management permission.

# Q81) What is the purpose of Identity Provider.

Identity Provider helps in building the trust between the AWS and the Corporate AD environment while we create the Federated role.

# Q82) Differentiate Basic and Detailed monitoring in cloud watch?

Basic Monitoring: Basic monitoring sends data points to Amazon cloud watch every five minutes for a limited number of preselected metrics at no charge.

Detailed Monitoring: Detailed monitoring sends data points to amazon CloudWatch every minute and allows data aggregation for an additional charge.

# Q83) What is the benefit of creating the AWS Organization.

Creating an AWS Organization allows you to centrally manage and govern multiple AWS accounts within your company, enabling features like consolidated billing, applying consistent security policies across all accounts.

# Q84) What is the maximum file length in S3?

utf-8 1024 bytes

# Q85) which activity cannot be done using autoscaling?

Maintain fixed running of ec2

# Q86) What is the relationship between Route53 and Cloud front?

In Cloud front we will deliver content to edge location wise so here we can use Route 53 for Content Delivery Network. Additionally, if you are using Amazon CloudFront you can configure Route 53 to route Internet traffic to those resources.

# Q87) Can objects in Amazon s3 be delivered through amazon cloud front?

Yes

# Q88) What is ephemaral storage?

# Temporary storage

# Q89) What is Auto Scaling group?

Auto Scaling group is a collection of Amazon EC2 instances managed by the Auto scaling service. Each auto scaling group contains configuration options that control when auto scaling should launch new instance or terminate existing instance.

# Q90) What are shards in kinesis aws services?

# Shards are used to store data in Kinesis.

# Q91) How to plan Auto scaling?

* Manual Scaling
* Scheduled Scaling
* Dynamic Scaling

# Q92) I have some private servers on my premises also i have distributed some of My workload on the public cloud,what is the architecture called?

Hybrid cloud

# Q93)Route 53 can be used to route users to infrastructure outside of aws.True/false?

False

# Q94) What is cloud formation?

Cloud formation is a service which creates the AWS infrastructure using code. It helps to reduce time to manage resources. We can able to create our resources Quickly and faster.

# Q95) which cloud model do Developers and organizations all around the world leverage extensively?

IAAS-Infrastructure as a service.

# Q96) Can cloud front serve content from a non AWS origin server?

No

# Q97) Is EFS a centralised storage service in AWS?

Yes

# Q98) Which AWS service will you use to collect and process ecommerce data for near real time analysis?

Both Dynamo DB & Redshift

# Q99) Why we go for Cloud Computing?

* Lower computing cost
* No IT Maintenance
* Business connectivity
* Easily upgraded
* Device Independent

# Q100) What are the deployment models using in Cloud?

* Private Cloud
* Public Cloud
* Hybrid cloud

**Q101) Troubleshooting with EC2 Instances:**

Instance States

* If the instance state is 0/2- there might be some hardware issue • If the instance state is ½- there might be issue with OS.

Workaround-Need to restart the instance, if still that is not working logs will help to fix the issue.

**Q102) When attached to an Amazon VPC which two components provide connectivity with external networks?**

* Internet Gateway {IGW)
* Virtual Private Gateway (VGW)

# Q103) Difference between EBS,EFS and S3

* We can access EBS only if its mounted with instance, at a time EBS can be mounted only with one instance.
* EFS can be shared at a time with multiple instances
* S3 can be accessed without mounting with instances

# Q104) Maximum number of bucket which can be crated in AWS.

100 buckets can be created by default in AWS account.To get more buckets additionally you have to request Amazon for that.

**Q105)What is an elastic transcoder?**

Elastic Transcoder is a media transcoding service used to convert media files into formats suitable for mobile devices or web streaming.

**Q106)Can S3 be used with EC2 instances? If yes, how?**

Yes, S3 can store data for EC2 instances by accessing it via the AWS SDK, CLI, or using S3 APIs.

**Q107)Your company wants to connect its data center to the Amazon Cloud Network. What is your suggestion?**

AWS Direct Connect or a VPN connection through AWS is recommended for secure and reliable connectivity.

**Q108)What are the native AWS security logging capabilities?**

AWS offers CloudTrail for API activity logging, VPC Flow Logs for network traffic, and CloudWatch for monitoring metrics and logs.

**Q109)How can you recover or log in to an EC2 instance for which you have lost the key?**

You can create an image (AMI) of the instance, relaunch it with a new key pair, or use EC2 instance recovery features.

**Q110)What are some of the best security practices for Amazon EC2?**

Use security groups and firewalls.

Regularly patch and update instances.

Use IAM roles for access.

Enable monitoring and logging.

Use encryption for sensitive data.

# Q111) What is the Difference Between Public Subnet and Private Subnet ?

Public Subnet will have Internet Gateway Attached to its associated Route Table and Subnet, Private Subnet will not have the Internet Gateway Attached to its associated Route Table and Subnet

Public Subnet will have internet access and Private subnet will not have the internet access directly.

# Q112) How many Policies can be attached to a role.

10 (Soft limit), We can have till 20.

# Q113) What are the different ways to access AWS.

3 Different ways (CLI, Console, SDK)

# Q114) Explain Cloud Service Models?

SAAS (Software as a Service): It is software distribution model in which application are hosted by a vendor over the internet for the end user freeing from complex software and hardware management. (Ex: Google drive, drop box)

PAAS (Platform as a Service): It provides platform and environment to allow developers to build applications. It frees developers without going into the complexity of building and maintaining the infrastructure. (Ex: AWS Elastic Beanstalk, Windows Azure)

IAAS (Infrastructure as a Service): It provides virtualized computing resources over the internet like cpu, memory, switches, routers, firewall, Dns, Load balancer (Ex: Azure, AWS)

# Q115) **Explain Amazon EC2 root device volume.**

# The root device volume is the storage that contains the operating system and is attached to an EC2 instance at launch.

# Q116) How a Root AWS user is different from in IAM User.

Root User will have acces to entire AWS environment and it will not have any policy attached to it. While IAM User will be able to do its task on the basis of policies attached to it.

# Q117) What is mean by Region, Availability Zone and Edge Location?

Region: An independent collection of AWS resources in a defined geography. A collection of Data centers (Availability zones). All availability zones in a region connected by high bandwidth.

Availability Zones: An Availability zone is a simply a data center. Designed as independent failure zone. High speed connectivity, Low latency.

Edge Locations: Edge location are the important part of AWS Infrastructure. Edge locations are CDN endpoints for cloud front to deliver content to end user with low latency

**Q118)Can I vertically scale an Amazon instance? How do you do it?**

Yes, you can vertically scale by stopping the instance, resizing it to a larger instance type, and then restarting it.

**Q119)Your company wishes to send and receive compliance emails from its customers using its own email address and domain. What service would you recommend?**

Amazon SES (Simple Email Service) is a cost-effective way to send and receive emails using your own domain.

**Q120)You unintentionally terminated an EC2 instance in a VPC with an associated elastic IP. What will happen if you restart the instance?**

If you restart the instance, you will lose the elastic IP since it is disassociated when the instance is terminated.

# Q121) What is Route53

Route 53 give you web interface through which the DNS can be managed using Route 53, It helps you manage your domain names, DNS records, health checking, and traffic management across multiple AWS resources and regions.  
 Following are the types of routing policies in route53,

* Simple routing
* Latency routing
* Failover routing
* Geolocation routing
* Weighted routing

**Q122)What role does buffer play in Amazon Web Services?**

A buffer helps in managing traffic spikes by ensuring that resources are balanced, improving system performance under load.

**Q123)What are the characteristics of Amazon CloudSearch?**

CloudSearch is a scalable, fully managed search service that supports searching large collections of data with fast response times.

**Q124)Will your standby RDS be launched in the same availability zone as your primary?**

No, the standby RDS instance will be launched in a different availability zone for redundancy.

# Q125) When your instance show retired state?

Retired state only available in Reserved instances. Once the reserved instance reserving time (1 yr/3 yr) ends it shows Retired state.

**Q126) My EC2 instance IP address change automatically while instance stop and start. What is the reason for that and explain solution?**

AWS assigned Public IP automatically but it’s change dynamically while stop and start. In that case we need to assign Elastic IP for that instance, once assigned it doesn’t change automatically.

# Q127) What is Elastic Beanstalk?

AWS Elastic Beanstalk is the fastest and simplest way to get an application up and running on AWS. Developers can simply upload their code and the service automatically handle all the details such as resource provisioning, load balancing, Auto scaling and Monitoring.

# Q128) What is Amazon Lightsail?

Amazon Lightsail is a cloud platform that provides virtual private server (VPS) instances, containers, databases, storage, and other resources to build and host web applications and websites. It's a good option for users who are new to AWS, or who need a simple, cost-effective way to get started.

# Q129) What is EBS?

Amazon EBS Provides persistent block level storage volumes for use with Amazon EC2 instances. Amazon EBS volume is automatically replicated with its availability zone to protect component failure offering high availability and durability. Amazon EBS volumes are available in a variety of types that differ in performance characteristics and Price.

# Q130) How to compare EBS Volumes?

Magnetic Volume (Standard):

Storage Size: 1 GiB to 1 TiB

Max Throughput: ~40–90 MB/s

Cold HDD (sc1):

Storage Size: 125 GiB to 16 TiB

Max Throughput: 250 MB/s

Throughput-Optimized HDD (st1):

Storage Size: 125 GiB to 16 TiB

Max Throughput: 500 MB/s

General-Purpose SSD (gp3):

Storage Size: 1 GiB to 16 TiB

Max Throughput: 1,000 MB/s

Provisioned IOPS SSD (io2):

Storage Size: 4 GiB to 16 TiB

Max Throughput: 1,000 MB/s

# Q131) What are the Defaults services we get when we create custom AWS VPC?

Route Table

Network ACL

Security Group

**Q132)What is AWS Lambda?**

AWS Lambda is a serverless compute service that allows you to run code in response to events without provisioning or managing servers.

# Q133) What is EBS Snapshot?

* It can back up the data on the EBS Volume. Snapshots are incremental backups.
* If this is your first snapshot it may take some time to create. Snapshots are point in time copies of volumes.

# Q134) How to connect EBS volume to multiple instance?

We can’t able to connect EBS volume to multiple instance, but we can able to connect multiple EBS Volume to single instance.

# Q135) What is Amazon Dynamo DB?

Amazon Dynamo DB is fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. Dynamo DB makes it simple and Cost effective to store and retrieve any amount of data.

**Q136)Explain the difference between Amazon RDS and Amazon DynamoDB.**

Amazon RDS is a service for managing relational databases, meaning it stores data in structured tables with rows and columns, while Amazon DynamoDB is a NoSQL database service that uses a key-value data model, allowing for flexible, unstructured data storage and highly scalable performance.

# Q137) What are the advantage and disadvantage of EFS?

# Advantages:

* Fully managed service
* File system grows and shrinks automatically to petabytes
* Can support thousands of concurrent connections  
  Multi AZ replication
* Throughput scales automatically to ensure consistent low latency   
    
  Disadvantages:
* Not available in all region
* Cross region capability not available
* More complicated to provision compared to S3 and EBS

# Q138) what are the things we need to remember while creating s3 bucket?

* This means bucket names must be unique across all AWS
* Bucket names can contain upto 63 lowercase letters, numbers, hyphens and
* You can have upto 100 per account

# Q140) Explain Amazon s3 lifecycle rules?

Amazon S3 lifecycle configuration rules, you can significantly reduce your storage costs by automatically transitioning data from one storage class to another or even automatically delete data after a period of time.

* Store backup data initially in Amazon S3 Standard
* After 30 days, transition to Amazon Standard IA
* After 90 days, transition to Amazon Glacier
* After 3 years, delete

# Q141) What is the relation between Amazon S3 and AWS KMS?

To encrypt Amazon S3 data at rest, you can use several variations of Server-Side Encryption. Amazon S3 encrypts your data at the object level as it writes it to disks in its data centers and decrypt it for you when you access it’ll SSE performed by Amazon S3 and AWS Key Management Service (AWS KMS) uses the 256-bit Advanced Encryption Standard (AES).

# Q142) What is the function of cross region replication in Amazon S3?

Cross region replication is a feature allows you asynchronously replicate all new objects in the source bucket in one AWS region to a target bucket in another region. To enable cross-region replication, versioning must be turned on for both source and destination buckets. Cross region replication is commonly used to reduce the latency required to access objects in Amazon S3

# Q143) What are the Authentication in AWS?

* User Name/Password
* Access Key
* Access Key/ Session Token

# Q144) Explain stateful and Stateless firewall.

Stateful Firewall: A Security group is a virtual stateful firewall that controls inbound and outbound network traffic to AWS resources and Amazon EC2 instances. Operates at the instance level. It supports allow rules only. Return traffic is automatically allowed, regardless of any rules.

Stateless Firewall: A Network access control List (ACL) is a virtual stateless firewall on a subnet level. Supports allow rules and deny rules. Return traffic must be explicitly allowed by rules.

# Q145) What is NAT Instance and NAT Gateway?

A NAT instance and a NAT gateway are both used to allow private subnets to access the internet in AWS, but they have some differences:

Purpose

A NAT gateway connects instances in a private subnet to the internet or AWS services, while a NAT instance allows resources in a private subnet to communicate with destinations outside the virtual private cloud (VPC).

Security

A NAT gateway keeps instances in private subnets anonymous, isolating them from the public internet. A NAT instance keeps a private subnet secure by only sending response packets to the private subnet.

**Q146) What are the different record types available in Route 53?**

• A record: This type of record, known as Address Record, is used to map a domain name to an IPv4 address. For example, it associates the domain "www.example.com" with the corresponding IPv4 address "10.0.0.1."

• AAAA record: The IPv6 Address Record, or Quad-A record, maps a domain name to an IPv6 address. This is essential for supporting the transition to IPv6, which offers a larger address space.

• CNAME record: The Canonical Name record **creates an alias for another domain name.** It is often used when you want one domain to reference another domain's address. For instance, you might use a CNAME record to make "blog.example.com" an alias for "www.example.com."

• MX record: The Mail Exchange record specifies mail exchange servers responsible for **receiving email on behalf of the domain.** This record is crucial for setting up email services associated with a domain.

• Alias records: These are special types of records **used to route traffic to AWS resources seamlessly.** They can be used to associate a domain with AWS resources such as CloudFront distributions, S3 buckets, or Elastic Load Balancers. Alias records help in achieving flexibility and scalability within the AWS ecosystem.

**Q147) How do you upgrade or downgrade a system with near-zero downtime?**

**You can upgrade or downgrade a system with near-zero downtime using the following steps of migration:**

Open EC2 console

Choose Operating System AMI

Launch an instance with the new instance type

Install all the updates

Install applications

Test the instance to see if it’s working

If working, deploy the new instance and replace the older instance

Once it’s deployed, you can upgrade or downgrade the system with near-zero downtime.

# **Q148) Name some of the AWS services that are not region-specific**

# **AWS services that are not region-specific are:**

# IAM

# Route 53

# Web Application Firewall

# CloudFront