AWS Services Interview Questions and Answers

EC2 (Elastic Compute Cloud)

Q1: What is EC2 and what are the different instance types?

A: EC2 provides resizable compute capacity in the cloud. Types include:

- General Purpose: t3, m5

- Compute Optimized: c5

- Memory Optimized: r5, x1

- Storage Optimized: i3, d2

- GPU: p3, g4

Q2: Difference between stopping and terminating EC2?

A:

- Stop: Shuts down, EBS volume persists

- Terminate: Deletes instance and EBS (default)

Q3: Ensuring high availability?

A:

- Auto Scaling + multiple AZs

- ELB + CloudWatch alarms

EBS (Elastic Block Store)

Q1: EBS Volume types?

A:

- gp3/gp2: General Purpose SSD

- io2/io1: Provisioned IOPS

- st1: Throughput HDD

- sc1: Cold HDD

Q2: Attach EBS to multiple EC2s?

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A: io1/io2 support multi-attach for specific use cases.

Q3: EBS snapshot?

A: Incremental backups stored in S3.

S3 (Simple Storage Service)

Q1: Data durability?

A: 11 9s durability (99.999999999%) across multiple AZs.

Q2: Storage classes?

A:

- Standard, Intelligent-Tiering, One Zone-IA, Glacier, Deep Archive

Q3: Security?

A:

- Bucket policies, IAM, Encryption (SSE-S3, KMS), Object Lock, MFA Delete

FSx (File System)

Q1: FSx variants?

A:

- FSx for Windows (SMB)

- FSx for Lustre (HPC)

- FSx for NetApp ONTAP

- FSx for OpenZFS

Q2: FSx vs EFS?

A:

- FSx: Windows/HPC workloads, file locking, SMB/NFS

- EFS: Linux shared storage

VPC (Virtual Private Cloud)

Q1: Key components?

A: Subnets, Route Tables, NACLs, Security Groups, IGW, NAT, Peering

Q2: NACL vs Security Group?

A:

- NACL: Stateless, Subnet-level, Allow & Deny
- SG: Stateful, Instance-level, Only Allow

Q3: NAT Gateway?

A: Enables private subnet to access internet

ELB / NLB

Q1: Load Balancer types?

A:

- ALB: Layer 7
- NLB: Layer 4
- Classic: Legacy

Q2: ALB vs NLB?

A:

- ALB: HTTP/S, path routing
- NLB: TCP/UDP, static IP

Q3: Health checks?

A: Configurable on protocol, port, and path. Instances failing checks are deregistered.