Basic AWS Interview Questions

Q: What is AWS?

A: AWS (Amazon Web Services) is a comprehensive cloud computing platform offering services like computing power, storage, and databases on a pay-as-you-go basis.

Q: What are the three basic types of cloud services?

A: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).

Q: What is Amazon EC2?

A: Amazon EC2 (Elastic Compute Cloud) provides scalable virtual servers for running applications.

Q: What is Amazon S3?

A: Amazon S3 (Simple Storage Service) offers scalable object storage for data backup and archiving.

Q: What is AWS Lambda?

A: AWS Lambda is a serverless compute service that runs code in response to events without provisioning servers.

Q: What is Amazon RDS?

A: Amazon RDS (Relational Database Service) is a managed service for setting up, operating, and scaling relational databases.

Q: What is Amazon VPC?

A: Amazon VPC (Virtual Private Cloud) allows you to provision a logically isolated section of the AWS cloud.

Q: What is IAM in AWS?

A: IAM (Identity and Access Management) enables you to manage access to AWS services and resources securely.

Q: What is Auto Scaling?

A: Auto Scaling automatically adjusts the number of EC2 instances to handle the load for your application.

Q: What is the difference between scalability and elasticity?

A: Scalability is the ability to increase capacity to handle growth, while elasticity is the ability to automatically increase or decrease resources as needed.

Intermediate AWS Interview Questions

Q: What are security groups in AWS?

A: Security groups act as virtual firewalls to control inbound and outbound traffic for AWS resources.

Q: What is the difference between stateful and stateless firewalls?

A: Stateful firewalls track the state of active connections, while stateless firewalls treat each packet in isolation.

Q: What is Amazon CloudFront?

A: Amazon CloudFront is a content delivery network (CDN) that delivers data with low latency and high transfer speeds.

Q: What is Amazon Route 53?

A: Amazon Route 53 is a scalable DNS and domain name registration service.

Q: What is the difference between Amazon S3 and Amazon EBS?

A: S3 is object storage for unstructured data, while EBS is block storage for use with EC2 instances.

Q: What is the use of Amazon CloudWatch?

A: CloudWatch monitors AWS resources and applications, providing metrics and logs.

Q: What is AWS Elastic Beanstalk?

A: Elastic Beanstalk is a PaaS for deploying and managing applications without worrying about the infrastructure.

Q: What is Amazon SNS?

A: Amazon SNS (Simple Notification Service) is a fully managed messaging service for sending notifications.

Q: What is Amazon SQS?

A: Amazon SQS (Simple Queue Service) is a fully managed message queuing service.

Q: What is the difference between Amazon SQS and Amazon SNS?

A: SQS is a message queue service for decoupling components, while SNS is a pub/sub messaging service for broadcasting messages.

Advanced AWS Interview Questions

Q: What is the difference between vertical and horizontal scaling?

A: Vertical scaling involves adding resources to a single instance, while horizontal scaling involves adding more instances.

Q: What is AWS CloudFormation?

A: CloudFormation allows you to model and provision AWS resources using templates.

Q: What is AWS Elastic Load Balancing?

A: Elastic Load Balancing automatically distributes incoming application traffic across multiple targets.

Q: What is Amazon EFS?

A: Amazon EFS (Elastic File System) provides scalable file storage for use with AWS Cloud services and on-premises resources.

Q: What is the difference between Amazon EBS and Amazon EFS?

A: EBS is block storage for a single EC2 instance, while EFS is a shared file storage for multiple instances.

Q: What is AWS Direct Connect?

A: AWS Direct Connect establishes a dedicated network connection from your premises to AWS.

Q: What is Amazon Redshift?

A: Amazon Redshift is a fast, scalable data warehouse that makes it simple to analyze data.

Q: What is Amazon Kinesis?

A: Amazon Kinesis is a platform for real-time data processing of streaming data.

Q: What is AWS Glue?

A: AWS Glue is a fully managed ETL (extract, transform, and load) service.

Q: What is Amazon Athena?

A: Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3

using SQL.

Scenario-Based AWS Interview Questions

Q: How would you design a highly available and scalable web application on AWS?

A: Use Elastic Load Balancer, Auto Scaling groups, and deploy across multiple Availability Zones.

Q: How do you secure data at rest and in transit in AWS?

A: Use encryption (e.g., SSE for S3, KMS for keys), SSL/TLS for data in transit, and IAM policies for access control.

Q: How do you monitor and troubleshoot performance issues in AWS?

A: Use CloudWatch for metrics and alarms, CloudTrail for auditing, and X-Ray for tracing application requests.

Q: How do you manage and automate infrastructure deployment in AWS?

A: Use AWS CloudFormation or Terraform for infrastructure as code, and AWS CodePipeline for CI/CD.

Q: How do you implement disaster recovery in AWS?

A: Use multi-region deployments, regular backups, and services like AWS Backup and Route 53 for failover.

Q: Your EC2 instance is not reachable. What steps would you take?

A: Check instance state, security groups, route tables, network ACLs, and ensure the correct key pair and internet gateway configuration.

Q: A Lambda function times out. How would you fix it?

A: Increase timeout settings, optimize the function code, and check VPC configurations that might delay execution.

Q: How would you optimize S3 storage costs for archived data?

A: Use lifecycle policies to transition data to Glacier or S3 Intelligent-Tiering.

Q: How would you design a secure multi-account AWS environment?

A: Use AWS Organizations, SCPs, centralized IAM, and consolidated billing with CloudTrail and Config for auditing.

Q: How can you handle failover between AWS regions?

A: Use Route 53 with health checks, S3 cross-region replication, and multi-region deployments for stateless services.