Top 20 AWS Questions & Answers

1. at is AWS EC2 and how do you launch an instance?
Answer: AWS EC2 (Elastic Compute Cloud) provides scalable virtual servers. You can launch an instance via the AWS Management Console or CLI by selecting an AMI, instance type, and configuring settings like security groups and key pairs.

2. How does AWS S3 handle object storage?
Answer: AWS S3 (Simple Storage Service) is used for storing and retrieving any amount of data. It uses a flat namespace and objects are stored in buckets, with features like versioning and lifecycle policies for data management.

3. What is an IAM role, and how does it differ from an IAM user?
Answer: An IAM (Identity and Access Management) role is a set of permissions assigned to AWS services or users, allowing them to perform specific actions. An IAM user has long-term credentials and direct access to AWS resources.

4. Explain VPC and its primary components.
Answer: A VPC (Virtual Private Cloud) is a private network within AWS where you can define subnets, route tables, internet gateways, and NAT gateways to control network traffic.

5. What is AWS Lambda, and when would you use it?
Answer: AWS Lambda is a serverless compute service that runs code in response to events, such as changes in data or HTTP requests. It is used for running backend services or automating tasks without managing servers.

6. Describe a scenario where you would use Blue-Green Deployment.
Answer: Blue-Green Deployment is used to minimize downtime during application updates. You maintain two identical environments (Blue and Green). After deploying updates to the Green environment, you switch traffic from Blue to Green.

7. What is AWS Route 53, and how is it used?
Answer: AWS Route 53 is a scalable DNS and domain registration service. It translates domain names into IP addresses, allowing users to access applications hosted on AWS.

8. How do you set up CI/CD pipelines using AWS?
Answer: Use AWS CodePipeline to define the stages of your deployment process, integrate with AWS CodeBuild for building code, and AWS CodeDeploy for deploying applications to EC2 or Lambda.

9. What are the advantages of using AWS CloudFormation?
Answer: AWS CloudFormation allows you to define infrastructure as code using templates, automating the setup and configuration of AWS resources. It helps with version control, repeatability, and reduces manual errors.

10. How do you implement Automated Testing in AWS CloudFormation?
Answer: Automated testing in AWS CloudFormation can be implemented using tools like AWS CodePipeline with integration for automated testing tools or using AWS CloudFormation StackSets for testing across multiple accounts.

11. What is a Scenario-based Real-Time Question in AWS interviews?
Answer: Scenario-based Real-Time Questions involve providing solutions to practical problems or use cases involving AWS services, such as designing a scalable architecture or troubleshooting issues in a cloud environment.

12. Explain the process of upgrading AWS services and infrastructure.
Answer: Upgrading AWS services involves applying updates through AWS Management Console or CLI, ensuring compatibility with existing infrastructure, and testing changes in a staging environment before deployment.

13. How do you manage access permissions using IAM?
Answer: Access permissions are managed using IAM policies and roles. Policies define what actions are allowed or denied, and roles are assigned to users or services to grant them those permissions.

14. What is AWS CodeDeploy, and how does it support Blue-Green Deployment?
Answer: AWS CodeDeploy automates the deployment of applications to EC2 instances, Lambda, or on-premises servers. It supports Blue-Green Deployment by allowing you to deploy changes to a new environment and switch traffic once validated.

15. Describe the benefits of using Automated Testing in a CI/CD pipeline.
Answer: Automated Testing in a CI/CD pipeline ensures code quality and stability by running tests automatically whenever code is committed. It helps identify issues early, reduces manual testing efforts, and speeds up the release process.

16. What is the purpose of AWS CloudWatch?
Answer: AWS CloudWatch monitors AWS resources and applications in real time, collecting and tracking metrics, logs, and events to provide insights into system performance and operational health.

17. How do you handle scaling in AWS Lambda?
Answer: AWS Lambda automatically handles scaling by running multiple instances of your function in response to incoming events. It scales based on the number of events or requests, without the need for manual intervention.

18. What are the key differences between AWS Elastic Load Balancer (ELB) and AWS Application Load Balancer (ALB)?
Answer: ELB distributes incoming application traffic across multiple targets, while ALB operates at the application layer (Layer 7) and supports features like URL-based routing and host-based routing.

19. How do you use AWS CloudTrail for auditing?
Answer: AWS CloudTrail logs API calls made on your AWS account, providing visibility into user activity and changes. It helps with auditing, security analysis, and compliance by storing event history.

20. Explain how to set up a VPC peering connection.
Answer: To set up a VPC peering connection, you need to create a peering connection request from one VPC to another, accept the request from the other VPC, and then update route tables to allow traffic to flow between the peered VPCs.