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## AWS Questions & Answers

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1. **What is AWS?** AWS (Amazon Web Services) is a comprehensive cloud computing platform offering a mix of infrastructure as a service (IaaS), platform as a service (PaaS), and packaged software as a service (SaaS).
2. **What is EC2?** EC2 (Elastic Compute Cloud) provides scalable virtual servers in the cloud.
3. **What is S3?** S3 (Simple Storage Service) is an object storage service that offers scalability, data availability, security, and performance.
4. **What is RDS?** RDS (Relational Database Service) is a managed relational database service supporting various database engines.
5. **What is Lambda?** Lambda is a serverless compute service that runs code in response to events and automatically manages the underlying compute resources.
6. **What is VPC?** VPC (Virtual Private Cloud) allows you to provision a logically isolated section of the AWS cloud where you can launch AWS resources in a virtual network.
7. **What is CloudFront?** CloudFront is a content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to users globally with low latency and high transfer speeds.
8. **What is IAM?** IAM (Identity and Access Management) enables you to manage access to AWS services and resources securely.
9. **What is Route 53?** Route 53 is a scalable DNS (Domain Name System) web service designed to route end-user requests to internet applications.
10. **What is DynamoDB?** DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability.
11. **What is SQS?** SQS (Simple Queue Service) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications.
12. **What is SNS?** SNS (Simple Notification Service) is a fully managed pub/sub messaging service that enables you to decouple and scale microservices, distributed systems, and serverless applications.
13. **What is Elastic Beanstalk?** Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services.
14. **What is CloudWatch?** CloudWatch is a monitoring and observability service built for DevOps engineers, developers, site reliability engineers (SREs), and IT managers.

15. **What is the AWS Well-Architected Framework?** It is a set of best practices and guidelines to help you design, build, and operate reliable, secure, efficient, and cost-effective systems in the cloud.
16. **What is AWS Auto Scaling?** Auto Scaling automatically adjusts the number of compute resources to match the demand.
17. **What is AWS CloudFormation?** CloudFormation gives developers and businesses an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.
18. **What is AWS Fargate?** Fargate is a serverless compute engine for containers that works with both Amazon ECS and Amazon EKS.
19. **What is the difference between EBS and EFS?** EBS (Elastic Block Store) provides persistent block storage for EC2 instances, whereas EFS (Elastic File System) provides scalable file storage for use with AWS cloud services and on-premises resources.
20. **What is AWS Glue?** Glue is a fully managed extract, transform, and load (ETL) service that makes it easy to prepare and load data for analytics.
21. **What is AWS Kinesis?** Kinesis is a platform for real-time processing of streaming data at massive scale.
22. **What is AWS CloudTrail?** CloudTrail is a service that enables governance, compliance, and operational and risk auditing of your AWS account.
23. **What is AWS CodePipeline?** CodePipeline is a continuous integration and continuous delivery service for fast and reliable application and infrastructure updates.
24. **What is AWS CodeCommit?** CodeCommit is a fully managed source control service that makes it easy for teams to host secure and scalable Git repositories.
25. **What is AWS CodeBuild?** CodeBuild is a fully managed continuous integration service that compiles source code, runs tests, and produces software packages.
26. **What is AWS CodeDeploy?** CodeDeploy automates code deployments to any instance, including Amazon EC2 instances and instances running on-premises.
27. **What is AWS Config?** Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources.
28. **What is AWS Systems Manager?** Systems Manager provides a unified user interface to view operational data from multiple AWS services and allows you to automate operational tasks across your AWS resources.
29. **What is AWS Organizations?** Organizations is a service that allows you to centrally manage and govern your environment as you grow and scale your AWS resources.
30. **What is AWS ElastiCache?** ElastiCache is a web service that makes it easy to deploy, operate, and scale an in-memory cache in the cloud.
31. **What is AWS Aurora?** Aurora is a MySQL- and PostgreSQL-compatible relational database built for the cloud, combining the performance and availability of high-end commercial databases with the

simplicity and cost-effectiveness of open-source databases.

32. **What is AWS Redshift?** Redshift is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and your existing Business Intelligence (BI) tools.
33. **What is AWS OpsWorks?** OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.
34. **What is AWS Step Functions?** Step Functions is a serverless orchestration service that lets you combine AWS Lambda functions and other AWS services to build and run applications.
35. **What is AWS Elastic Load Balancer (ELB)?** ELB automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses.
36. **What is AWS Glue DataBrew?** DataBrew is a visual data preparation tool that makes it easy for data analysts and data scientists to clean and normalize data.
37. **What is AWS QuickSight?** QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.
38. **What is AWS X-Ray?** X-Ray helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture.
39. **What is Amazon WorkSpaces?** WorkSpaces is a fully managed, secure Desktop-as-a-Service (DaaS) solution.
40. **What is Amazon Elastic Container Service (ECS)?** ECS is a fully managed container orchestration service that helps you deploy, manage, and scale containerized applications.
41. **What is AWS AppSync?** AppSync is a fully managed service that makes it easy to develop GraphQL APIs by handling the heavy lifting of securely connecting to data sources.
42. **What is AWS CloudShell?** CloudShell is a browser-based shell that makes it easy to securely manage, explore, and interact with your AWS resources.
43. **What is Amazon Comprehend?** Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text.
44. **What is Amazon Rekognition?** Rekognition is a service that makes it easy to add image and video analysis to your applications using proven, highly scalable, deep learning technology.
45. **What is AWS Shield?** Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards applications running on AWS.
46. **What is AWS WAF?** WAF (Web Application Firewall) helps protect your web applications from common web exploits and vulnerabilities.
47. **What is AWS Batch?** Batch enables developers, scientists, and engineers to easily and efficiently run hundreds of thousands of batch computing jobs on AWS.
48. **What is AWS Transit Gateway?** Transit Gateway connects VPCs and on-premises networks through a central hub, simplifying your network and putting an end to complex peering relationships.

49. **What is AWS Control Tower?** Control Tower offers an easy way to set up and govern a secure, multi-account AWS environment based on AWS best practices.
50. **What is Amazon Sagemaker?** SageMaker is a fully managed service that provides every developer and data scientist with the ability to build, train, and deploy machine learning models quickly.

## AWS Technical Support

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1. **What is the primary function of EC2?** EC2 provides resizable compute capacity in the cloud.
2. **How do you secure an S3 bucket?** Use bucket policies, IAM policies, and enable server-side encryption.
3. **What steps would you take to troubleshoot an EC2 instance not starting?** Check instance status, system status checks, and review logs for errors.
4. **How can you connect to an EC2 instance?** Use SSH for Linux instances and RDP for Windows instances.
5. **What is IAM and why is it important?** IAM manages access to AWS services and resources securely.
6. **What could cause an EC2 instance to be unreachable?** Misconfigured security groups, network ACLs, or VPC configuration issues.
7. **How do you monitor AWS resources?** Use CloudWatch for monitoring and setting up alarms.
8. **What is the difference between a security group and a network ACL?** Security groups act at the instance level, while network ACLs act at the subnet level.
9. **How do you handle high CPU utilization on an EC2 instance?** Check running processes, scale the instance, or offload tasks to other instances.
10. **What is the purpose of a VPC?** VPC allows you to create a private network within the AWS cloud.
11. **How can you automate deployments in AWS?** Use services like CodeDeploy, CodePipeline, and CloudFormation.
12. **What is an ELB and its types?** Elastic Load Balancer distributes incoming traffic; types include Classic, Application, and Network Load Balancers.
13. **How do you back up data in AWS?** Use services like S3, EBS snapshots, and RDS snapshots.
14. **What is AWS CloudTrail used for?** CloudTrail records AWS API calls for auditing.
15. **How do you handle a DDoS attack on AWS?** Use AWS Shield, WAF, and CloudFront for mitigation.
16. **What is the difference between EBS and Instance Store?** EBS is persistent storage; Instance Store is ephemeral and tied to the lifecycle of the instance.
17. **How do you migrate an on-premises application to AWS?** Use services like AWS Migration Hub, Server Migration Service, and Database Migration Service.

18. **What are AWS Availability Zones?** Distinct locations within a region that are isolated from failures in other zones.
19. **How can you ensure data encryption in transit and at rest?** Use SSL/TLS for in-transit encryption and AWS KMS or service-specific encryption features for at-rest encryption.
20. **What steps would you take if a customer reports slow performance on an RDS instance?** Check instance type, storage type, performance metrics, and database queries.
21. **What is Amazon RDS Multi-AZ?** Multi-AZ provides high availability by automatically replicating data to a standby instance in a different availability zone.
22. **How do you handle a failed deployment in AWS Elastic Beanstalk?** Check environment health, logs, and application versions, then roll back to a previous version if needed.
23. **What is AWS CloudFormation?** CloudFormation allows you to model and provision AWS resources using templates.
24. **How do you enable logging for an S3 bucket?** Enable server access logging and specify a target bucket for logs.
25. **What is AWS Auto Scaling?** Auto Scaling automatically adjusts the number of EC2 instances based on demand.
26. **How do you set up a VPN connection to an AWS VPC?** Use AWS VPN services to establish a secure connection between your on-premises network and AWS VPC.
27. **What is AWS Direct Connect?** Direct Connect provides a dedicated network connection from your premises to AWS.
28. **How do you configure a highly available application using AWS services?** Use ELB, Auto Scaling groups, Multi-AZ deployments, and RDS with read replicas.
29. **What are some best practices for securing your AWS environment?** Implement IAM best practices, use MFA, encrypt data, and regularly review access logs.
30. **How do you manage application secrets in AWS?** Use AWS Secrets Manager or AWS Systems Manager Parameter Store.
31. **What is AWS Lambda@Edge?** Lambda@Edge allows you to run Lambda functions at AWS Edge locations in response to CloudFront events.
32. **How do you implement CI/CD in AWS?** Use CodePipeline, CodeBuild, and CodeDeploy to automate build, test, and deployment processes.
33. **What is an AWS Availability Zone?** An Availability Zone is a distinct location within an AWS region, engineered to be isolated from failures in other zones.
34. **How do you troubleshoot VPC peering issues?** Verify route tables, security groups, and network ACLs for correct configurations.

35. **What is Amazon EFS?** EFS (Elastic File System) provides scalable file storage for use with AWS cloud services and on-premises resources.
36. **How do you enforce compliance in your AWS environment?** Use AWS Config, AWS CloudTrail, and AWS Security Hub to monitor and enforce compliance.
37. **What is the use of Amazon Macie?** Macie uses machine learning to automatically discover, classify, and protect sensitive data in AWS.
38. **How do you use AWS Cost Explorer?** AWS Cost Explorer helps you visualize and manage your AWS costs and usage over time.
39. **What is Amazon Inspector?** Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.
40. **How do you recover an accidentally deleted EC2 instance?** Restore from snapshots or AMIs if they were taken prior to deletion.
41. **What are AWS Reserved Instances?** Reserved Instances provide a discount compared to On-Demand pricing in exchange for committing to a specific instance type in a particular region for a term of 1 or 3 years.
42. **How do you manage resource tags in AWS?** Use AWS Resource Groups and Tag Editor to organize and manage resource tags.
43. **What is the AWS Shared Responsibility Model?** AWS is responsible for security of the cloud, and the customer is responsible for security in the cloud.
44. **How do you set up cross-region replication for an S3 bucket?** Enable cross-region replication in the S3 bucket settings and specify the destination bucket.
45. **What is AWS Trusted Advisor?** Trusted Advisor provides real-time guidance to help you provision your resources following AWS best practices.
46. **How do you use AWS Snowball?** Snowball is used for large-scale data transfers into and out of AWS.
47. **What is Amazon Lightsail?** Lightsail provides easy-to-use virtual private servers with a predictable pricing model.
48. **How do you configure AWS Shield Advanced?** Subscribe to Shield Advanced and associate it with the resources you want to protect.
49. **What is AWS CloudHSM?** CloudHSM is a cloud-based hardware security module that enables you to generate and use your own encryption keys.
50. **How do you perform disaster recovery in AWS?** Implement strategies like backup and restore, pilot light, warm standby, and multi-site active-active.



