AWS Interview Questions



can you give me AWS also

Awesome! Here's a full set of 100 AWS coding and interview questions with answers, organized across various key areas like EC2, S3, IAM, Lambda, VPC, RDS, CloudFormation, and more. Let me know if you'd like these split by category or in a downloadable format later.

AWS Interview Questions with Answers (1–100)

EC2 (Elastic Compute Cloud) - Q1-Q15

1. What is EC2 in AWS?

EC2 (Elastic Compute Cloud) provides scalable virtual servers in the cloud. You can launch and configure instances of various sizes and operating systems.

2. How do you resize an EC2 instance?

Stop the instance, change the instance type in settings, and restart it.

3. What are EC2 instance types?

Types include General Purpose (t2, t3), Compute Optimized (c5), Memory Optimized (r5), Storage Optimized (i3), etc.

4. What is the difference between stopping and terminating an EC2 instance?

Stopping retains the instance and EBS data; terminating deletes the instance and associated storage.

5. How does EC2 Auto Scaling work?

It automatically adjusts the number of EC2 instances based on traffic/load.

6. How can you secure your EC2 instances?

Use security groups, key pairs, IAM roles, and regular patching.

7. What are EC2 User Data scripts?

Scripts run at instance launch for installing packages or setting configurations.

8. What is EBS in AWS EC2?

Elastic Block Store is persistent block storage for EC2 instances.

9. Can we attach one EBS volume to multiple instances?

Not simultaneously in most cases, but it can be done using EBS Multi-Attach for certain volume types.

10. How do you connect to an EC2 instance?

Use SSH for Linux or RDP for Windows, with a valid key pair.

11. What's the difference between EBS and Instance Store?

EBS is persistent; instance store is ephemeral and lost on reboot.

12. What is an AMI?

Amazon Machine Image – a template with OS and software configuration to launch EC2 instances.

13. How do you create a custom AMI?

Launch and configure an instance, then create an image from it.

14. Can EC2 instances communicate across regions?

Not directly; you must use VPC peering, VPN, or inter-region VPC Transit Gateway.

15. What is spot instance pricing?

Spot pricing allows you to bid for unused EC2 capacity at a discount.

S3 (Simple Storage Service) - Q16-Q30

16. What is S3?

Object storage service with high availability and scalability.

17. What is the maximum file size in S3?

Single object: 5TB. Multipart uploads are required for files over 5GB.

18. What are S3 storage classes?

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

19. How do you make an S3 bucket public?

Update bucket policy and object-level ACLs, and disable block public access settings.

20. What is S3 versioning?

Maintains multiple versions of objects to protect against accidental deletion.

21. How do you delete all objects in a versioned bucket?

List all versions and delete each one (including delete markers).

22. How does S3 lifecycle configuration work?

Rules to transition objects to different classes or delete them after a defined period.

23. What is the difference between S3 and EBS?

S3 is object storage, EBS is block storage.

24. How do you serve a static website from S3?

Enable static website hosting and upload index.html and error.html.

25. Can S3 trigger Lambda functions?

Yes, using S3 event notifications.

26. What is S3 Transfer Acceleration?

Speeds up uploads by routing through Amazon CloudFront.

27. What is presigned URL in S3?

A temporary URL granting time-limited access to an S3 object.

28. What is S3 Select?

A feature to query part of an object using SQL without downloading it entirely.

29. Is S3 strongly consistent?

Yes, since Dec 2020, S3 provides strong read-after-write consistency.

30. What is an S3 bucket policy?

JSON-based policy to control access to buckets and objects.

IAM (Identity & Access Management) - Q31-Q40

31. What is IAM?

Manages access to AWS services and resources securely.

32. What are IAM roles?

A temporary permission set assignable to users, services, or applications.

33. What are IAM policies?

JSON-based documents defining permissions.

34. What's the difference between a role and a user?

Users are for human access; roles are used by services or applications.

35. What is the principle of least privilege?

Grant only permissions needed to perform a task.

36. How do you enforce MFA in IAM?

Enable MFA in IAM settings and update policies to require MFA.

37. What are IAM groups?

Collections of IAM users with attached common permissions.

38. Can IAM roles be assumed across accounts?

Yes, using trust policies and AssumeRole permissions.

39. How do you audit IAM activity?

Use AWS CloudTrail to log and monitor access events.

40. What are service-linked roles?

Predefined roles linked to AWS services for performing actions on your behalf.

Lambda - Q41-Q50

41. What is AWS Lambda?

Serverless compute service that runs code in response to triggers.

42. How is Lambda billed?

Based on the number of requests and duration of execution (in milliseconds).

43. What are Lambda triggers?

Events like S3 uploads, DynamoDB changes, API Gateway requests.

44. What languages are supported by Lambda?

Python, Node.js, Java, Go, Ruby, .NET, and custom runtimes via container images.

45. What is the Lambda execution role?

IAM role that grants permissions for Lambda to access AWS services.

46. How do you pass environment variables to Lambda?

Through configuration in the Lambda console or API.

47. What's the max timeout for a Lambda function?

15 minutes.

48. What is the difference between cold start and warm start in Lambda?

Cold start initializes the runtime; warm start reuses an existing container.

49. Can Lambda connect to VPC?

Yes, by assigning a VPC and subnet.

50. How do you deploy Lambda code?

Via ZIP upload, container image, or CI/CD (e.g., CodePipeline).

Would you like me to continue with **VPC**, **RDS**, **CloudFormation**, **CloudWatch**, **DynamoDB**, **and more** for Q51–Q100?



Q51-Q100

Great! Here's the continuation of **AWS interview questions with answers (Q51–Q100)** covering **VPC**, **RDS**, **CloudFormation**, **DynamoDB**, **CloudWatch**, **CloudFront**, **and general AWS architecture concepts**.

VPC (Virtual Private Cloud) – Q51–Q60

51. What is a VPC?

A Virtual Private Cloud is a logically isolated network in AWS where you can launch AWS resources.

52. What is a subnet in VPC?

A segment of the VPC IP range. Public subnets have internet access; private subnets do not by default.

53. Difference between public and private subnets?

Public subnets have a route to an internet gateway; private do not.

54. What is an Internet Gateway (IGW)?

A gateway that enables communication between instances in your VPC and the internet.

55. What is NAT Gateway vs NAT Instance?

Both provide internet access to private subnets. NAT Gateway is managed, more scalable; NAT Instance is self-managed.

56. What is a Route Table?

A set of rules (routes) used to determine where network traffic is directed.

57. What is VPC Peering?

Connects two VPCs to route traffic between them privately.

58. What is a security group?

A virtual firewall controlling inbound and outbound traffic for EC2 instances.

59. What is a Network ACL (NACL)?

A stateless firewall at the subnet level.

60. Can you connect two VPCs in different regions?

Yes, using inter-region VPC peering or AWS Transit Gateway.

🗾 RDS (Relational Database Service) – Q61–Q70

61. What is AWS RDS?

A managed relational database service for engines like MySQL, PostgreSQL, Oracle, SQL Server, and MariaDB.

62. How is RDS different from Aurora?

Aurora is a cloud-optimized database compatible with MySQL and PostgreSQL with better performance and availability.

63. What is Multi-AZ in RDS?

High availability setup that replicates data to a standby in another Availability Zone.

64. What is Read Replica in RDS?

A read-only copy of your DB for scaling read traffic.

65. Can RDS be accessed publicly?

Yes, if the DB is marked public and associated with a public subnet and correct security group.

66. What is the default backup retention period in RDS?

7 days, but can be configured from 0 to 35 days.

67. Can you SSH into an RDS instance?

No, you can connect using a database client, not SSH.

68. How do you encrypt RDS data?

At-rest using KMS; in-transit using SSL.

69. How do you scale RDS?

Vertically (changing instance size) or horizontally (read replicas).

70. What happens during a maintenance window?

AWS applies patches or changes that require downtime or failover.

CloudFormation – Q71–Q75

71. What is AWS CloudFormation?

A service for defining infrastructure as code using YAML or JSON templates.

72. What is a CloudFormation stack?

A group of AWS resources managed together as a unit.

73. What are CloudFormation parameters and mappings?

Parameters allow customization; mappings define fixed values based on regions or conditions.

74. What is a change set in CloudFormation?

A summary of what changes CloudFormation will make before execution.

75. How do you update a CloudFormation stack without downtime?

Use rolling updates or deploy changes using change sets with careful design.

DynamoDB - Q76-Q80

76. What is DynamoDB?

A managed NoSQL database offering key-value and document data models.

77. What is the primary key in DynamoDB?

A partition key (or partition + sort key) that uniquely identifies items.

78. What is DynamoDB Streams?

Captures changes in items (insert, update, delete) and can trigger Lambda functions.

79. What is the difference between eventual and strong consistency in DynamoDB?

Eventual consistency may have a delay; strong consistency guarantees the latest data.

80. How do you reduce throttling in DynamoDB?

Use auto-scaling, increase capacity, or use on-demand mode.

📊 CloudWatch – Q81–Q85

81. What is CloudWatch?

AWS service for monitoring and observability. Tracks metrics, logs, and events.

82. What is a CloudWatch alarm?

Triggers based on defined thresholds on metrics and can send notifications or take actions.

83. Can you use CloudWatch to monitor custom metrics?

Yes, you can push custom metrics via API or SDK.

84. How do you visualize data in CloudWatch?

Using dashboards that graph metrics from AWS services.

85. What is the difference between CloudWatch Logs and CloudTrail?

Logs: application logs. Trail: records AWS API calls.

o CloudFront & CDN – Q86–Q90

86. What is CloudFront?

AWS's content delivery network (CDN) that speeds up delivery of content using edge locations.

87. How does CloudFront improve performance?

By caching content close to the user using globally distributed edge locations.

88. What is an origin in CloudFront?

The source of content (e.g., S3, EC2, or external server).

89. Can CloudFront serve dynamic content?

Yes, by forwarding requests to the origin.

90. What is signed URL and signed cookie in CloudFront?

Secure ways to restrict access to content by time or user.

General AWS Concepts – Q91–Q100

91. What is the AWS Free Tier?

A set of services offered with limited usage for free for 12 months.

92. What is the Shared Responsibility Model?

AWS handles security of the cloud; you handle security in the cloud.

93. How does AWS ensure high availability?

Through regional architecture with multiple Availability Zones.

94. What is an Availability Zone?

A physically separate data center within a region.

95. What is AWS Well-Architected Framework?

A set of best practices based on five pillars: operational excellence, security, reliability, performance, cost optimization.

96. What is AWS Trusted Advisor?

Recommends best practices in security, performance, and cost.

97. What is AWS Organizations?

A service to manage multiple AWS accounts centrally.

98. What is consolidated billing in AWS?

Allows combining billing for multiple accounts under one payer.

99. How do you restrict access to a service using AWS Config?

Create compliance rules and remediate non-compliant resources.

100. What's the difference between a region and availability zone in AWS?

Region: a geographical location; AZ: isolated data centers within a region.

Let me know if you'd like:

- These grouped in a PDF or spreadsheet
- A quiz format to practice
- Or want to start another AWS service like **EKS**, **SQS**, or **Step Functions**!