98 AWS interview questions to hire top engineers

Questions

1. What is cloud computing, and why is AWS a popular choice for it?

2. Can you explain what an AWS Region and an Availability Zone are?

3. What are some of the basic services offered by AWS, such as EC2 and S3? Explain their purpose.

4. Imagine you have a simple website. How would you use AWS S3 to store your website's images and other static content?

5. What is AWS IAM, and why is it important for security?

6. How do you create a virtual machine using AWS EC2? What are the key steps involved?

7. What is the difference between scaling up and scaling out in AWS?

8. Explain the concept of 'pay-as-you-go' pricing in AWS. How does it benefit users?

9. What is AWS Lambda, and what are some use cases for it?

10. How can you monitor the performance of your AWS resources, like EC2 instances?

11. What is the purpose of a Virtual Private Cloud (VPC) in AWS?

12. Describe a scenario where you would use AWS CloudFront.

13. What are some ways to keep your AWS account secure?

14. Explain what AWS Auto Scaling is and why it is useful.

15. What are the differences between AWS EC2, ECS, and EKS?

16. Can you explain the concept of serverless computing and how AWS Lambda fits into it?

17. How would you deploy a containerized application on AWS?

18. What are some methods for backing up data stored in AWS S3?

19. How does AWS help in managing and automating infrastructure as code?

20. Describe how you would set up a basic CI/CD pipeline using AWS services.

21. What is AWS in simple terms, and why do companies use it?

22. Can you explain what a 'region' and an 'availability zone' are in AWS?

23. What is Amazon S3, and what is it commonly used for?

24. What is Amazon EC2, and how would you launch a virtual machine?

25. What is the difference between public, private, and hybrid cloud?

26. What is AWS Lambda, and what are some use cases for it?

27. What is the AWS Management Console?

28. What is the AWS Command Line Interface (CLI), and why is it useful?

29. What are some basic security best practices for AWS?

30. What is the principle of 'least privilege,' and how does it apply to AWS IAM?

31. Explain AWS IAM roles.

32. What is AWS CloudWatch, and what can it monitor?

33. What is the difference between horizontal and vertical scaling?

34. What are some benefits of using AWS CloudFormation or Terraform?

35. What is AWS VPC, and why is it important for networking?

36. What are some common AWS storage options besides S3?

37. What is a CDN, and how does Amazon CloudFront work?

38. What is the purpose of an Elastic Load Balancer (ELB)?

39. What are some ways to reduce AWS costs?

40. What is the difference between a 'stateful' and 'stateless' application?

41. Explain the difference between Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).

42. What is AWS Auto Scaling, and why is it important?

43. How does AWS help with disaster recovery?

44. What are some basic networking concepts relevant to AWS?

45. What is the shared responsibility model in AWS?

46. What are AWS security groups, and how do they work?

47. What is the difference between AWS RDS and DynamoDB?

48. Explain what you know about 'serverless' computing.

49. What is Infrastructure as Code (IaC), and how is it relevant to AWS?

50. Explain how you would use AWS CloudFormation to manage infrastructure as code, including rollback strategies.

51. Describe your experience with implementing CI/CD pipelines using AWS CodePipeline, CodeBuild, and CodeDeploy.

52. How would you design a highly available and scalable web application architecture using AWS services?

53. Explain the differences between AWS SQS, SNS, and Kinesis, and when you would use each service.

54. Describe your experience with securing AWS resources using IAM roles, policies, and security groups.

55. How would you troubleshoot performance issues in an AWS environment, considering factors like CPU utilization, memory usage, and network latency?

56. Explain your approach to cost optimization in AWS, including strategies for rightsizing instances and utilizing reserved instances.

57. Describe your experience with implementing and managing AWS Lambda functions, including considerations for concurrency and error handling.

58. How would you use AWS CloudWatch to monitor the health and performance of your AWS resources?

59. Explain how you would implement a disaster recovery plan for an application running on AWS.

60. Describe your experience with using AWS RDS for database management, including backups, scaling, and performance tuning.

61. How would you approach migrating an on-premises application to AWS, considering factors like data migration and application compatibility?

62. Explain the differences between AWS EBS and EFS, and when you would use each storage service.

63. Describe your experience with using AWS VPC to create a private network in the cloud.

64. How would you use AWS Auto Scaling to automatically adjust the number of EC2 instances based on demand?

65. Explain how you would use AWS S3 for object storage, including versioning, lifecycle policies, and security considerations.

66. Describe your experience with using AWS ECS or EKS to manage containerized applications.

67. How would you implement a multi-region architecture in AWS for high availability and disaster recovery?

68. Explain how you would use AWS Route 53 for DNS management and traffic routing.

69. Describe your experience with using AWS IAM to manage user access and permissions in the AWS environment.

70. How would you design a highly available and scalable web application using AWS services, and what factors would you consider when choosing specific services?

71. Describe a time you had to troubleshoot a performance bottleneck in an AWS environment. What tools and techniques did you use?

72. Explain the differences between AWS CloudFormation, Terraform, and AWS CDK. When would you choose one over the others?

73. How do you approach security in your AWS deployments, and what are some best practices you follow to protect against common threats?

74. Describe your experience with implementing CI/CD pipelines in AWS. What tools and services did you use, and what were some challenges you faced?

75. How would you optimize the cost of an existing AWS infrastructure without compromising performance or availability?

76. Explain the different types of load balancers available in AWS, and when would you use each type?

77. Describe your experience with implementing serverless architectures in AWS using services like Lambda, API Gateway, and DynamoDB.

78. How would you design a disaster recovery plan for a critical application running in AWS, and what are the key considerations?

79. Explain the benefits and drawbacks of using containers in AWS, and what services like ECS, EKS, and Fargate provide.

80. How do you monitor the health and performance of your AWS resources, and what alerting mechanisms do you use to respond to issues?

81. Describe your experience with implementing identity and access management (IAM) policies in AWS to control access to resources.

82. How would you handle data migration from an on-premises environment to AWS, and what are some potential challenges?

83. Explain the different storage options available in AWS, and when would you use each type (e.g., S3, EBS, EFS, Glacier)?

84. Describe your experience with implementing caching strategies in AWS to improve application performance (e.g., using CloudFront, ElastiCache)?

85. How do you stay up-to-date with the latest AWS services and features, and how do you evaluate their potential impact on your organization?

86. Explain how you would design a data lake solution on AWS, considering scalability, security, and cost-effectiveness.

87. How would you automate the process of creating and managing AWS resources using Infrastructure as Code (IaC) principles?

88. Describe a time you had to work with a legacy application in AWS. What were the challenges, and how did you address them?

89. How do you ensure compliance with industry regulations (e.g., HIPAA, GDPR) when deploying applications in AWS?

90. Explain how you would implement a multi-region deployment in AWS for high availability and disaster recovery.

91. How would you design a solution to ingest, process, and analyze large volumes of streaming data in real-time using AWS services?

92. Describe your experience with using AWS security services such as AWS Shield, AWS WAF, and AWS Inspector.

93. How would you approach troubleshooting a complex networking issue in an AWS VPC environment?

94. Explain the different pricing models available for EC2 instances, and how you would choose the most cost-effective option.

95. How do you handle secrets management in AWS, and what tools do you use to protect sensitive information?

96. Describe a time when you had to scale an application in response to a sudden increase in traffic. How did you accomplish this?

97. Explain how you would integrate AWS services with existing on-premises systems or other cloud providers.

98. How would you design a serverless application that uses Step Functions to orchestrate multiple Lambda functions?