AWS INTERVIEW QUESTIONS

1. Name 5 AWS services you have used and what's the use cases?
2. What is the difference between EC2 and S3?
3. Explain the difference between On-Demand, Reserved, and Spot instances in EC2. When would you choose one over the others?
4. What is an Amazon Machine Image (AMI)? How do you create a custom AMI, and what are the benefits of using custom AMIs?
5. How does EC2 Auto Scaling work, and what are the key components involved? Explain how you can use Auto Scaling to maintain application availability and optimize resource usage.
6. What is an EC2 instance profile, and how is it used for granting permissions to EC2 instances?
7. What is an EC2 instance metadata service? How can you leverage it within your EC2 instances?
8. What is an EC2 instance user data, and how can you use it to automate instance configurations during launch?
9. How does Elastic Network Interface (ENI) work in EC2? Discuss its role in network connectivity and the benefits it offers.
10. Explain the concept of EC2 instance types and the factors you consider when choosing the appropriate instance type for your workload.
11. What is Amazon S3, and what are its key features and benefits?
12. Explain the difference between S3 Standard, S3 Intelligent-Tiering, S3 Standard-IA, and S3 One Zone-IA storage classes in terms of durability, availability, and cost.
13. How can you control access to S3 buckets and objects? Describe the various options available for managing S3 bucket policies, IAM policies, and access control lists (ACLs).
14. What is the difference between S3 object-level and bucket-level logging? How can you enable logging for an S3 bucket?
15. Explain the concept of S3 versioning and its use cases. How can you enable and manage versioning for S3 buckets?
16. What is S3 lifecycle management? Describe how you can use lifecycle policies to automate the transition and expiration of objects in S3.
17. How can you secure your S3 data at rest and in transit? Discuss the options available for encrypting S3 objects and configuring SSL/TLS for data transfer.
18. Explain the concept of S3 Cross-Region Replication (CRR) and how it can be used for data replication and disaster recovery.
19. How can you optimize S3 performance and reduce costs? Discuss techniques such as multipart uploads, S3 transfer acceleration, and S3 Select.
20. What are S3 event notifications, and how can you use them to trigger actions or workflows when objects are uploaded, modified, or deleted in an S3 bucket?
21. What is the AWS CLI, and why would you use it?
22. How do you install and configure the AWS CLI on your local machine?
23. What are the different authentication methods supported by the AWS CLI? Explain how you can configure access keys, roles, and profiles.

24. How do you interact with AWS services using the AWS CLI? Provide examples of CLI commands to perform common tasks, such as creating an EC2 instance or uploading a file to S3.
25. How can you automate AWS CLI commands and scripts? Discuss the options available for scripting and automation using the AWS CLI.
26. What is the difference between the AWS CLI and the AWS SDKs? When would you choose one over the other?
27. What is the purpose of VPC (Virtual Private Cloud) in AWS?
28. How does Auto Scaling work in AWS?
29. Explain the difference between an AMI and an EBS snapshot.
30. What is AWS Lambda and how does it work?
31. Describe the various storage classes available in Amazon S3.
32. What is Amazon VPC, and why is it used?
33. What are the components of a VPC?
34. What is the difference between a public subnet and a private subnet in a VPC?
35. How does network ACL differ from security groups in a VPC?
36. Can you connect multiple VPCs together? If yes, how?
37. How can you secure communication between your VPC and on-premises infrastructure?
38. How does VPC peering work, and what are its limitations?
39. Explain the concept of an Internet Gateway (IGW) and its role in a VPC.
40. What is a NAT Gateway, and why would you use it in a VPC?
41. Can you change the IP range of an existing VPC?
42. Can you establish a VPC peering connection between VPCs in different AWS accounts and different regions?
43. How can you achieve high availability and fault tolerance in a VPC? Explain the concept of VPC Elastic IP addresses and their role in achieving this.
44. What are the considerations for connecting on-premises networks to VPCs in AWS? Describe the options available for establishing secure connectivity.
45. How can you control traffic between VPCs using security groups and network ACLs? What are the differences between the two and when should each be used?
46. Can you do VPC peering in different AWS regions?
47. Can you do VPC peering in same AWS region from different AWS accounts?
48. How can you achieve connectivity between VPCs in different AWS regions?
49. Explain the concept of VPC endpoints and their benefits. Provide examples of services that can be accessed privately via VPC endpoints.
50. What is VPC flow logs, and how can they be used for network monitoring and troubleshooting in AWS?
51. What are the tools used to send logs to the cloud environment?
52. What are AWS IAM, and what are its key components?
53. What are IAM Roles? How do you create /manage them?
54. What is the difference between IAM users and IAM roles?
55. How can you grant permissions to an IAM user or role in AWS?
56. What are IAM policies, and how do they work?
57. How can you enforce multi-factor authentication (MFA) for IAM users?

58. What is IAM federation, and how does it enable single sign-on (SSO) for AWS accounts?
59. How can you delegate access to AWS resources using IAM cross-account access?
60. Explain the concept of IAM groups and how they simplify permission management.
61. How can you audit and monitor IAM activities using AWS CloudTrail and IAM access analyser?
62. What are IAM conditions and how are they used in IAM policies? Provide examples of scenarios where conditions can be helpful.
63. Explain the concept of IAM roles for EC2 instances. How do they enhance security and simplify access management?
64. How can you integrate IAM with AWS services such as Amazon S3, Amazon DynamoDB, or AWS Lambda? Describe the different IAM mechanisms available for these services.
65. What is IAM access key rotation, and why is it important? Discuss the best practices for managing access keys and rotating them regularly.
66. How can you implement fine-grained access control using IAM? Describe the use of IAM policy variables and IAM policy conditions to achieve granular permissions.
67. What is AWS Organizations, and how does it enable centralized management of IAM across multiple AWS accounts?
68. How can you automate IAM user provisioning and deprovisioning using AWS services such as AWS Lambda and AWS CloudFormation?
69. How to upgrade or downgrade a system with zero downtime?
70. What is infrastructure as code and how do you use it?
71. What is a load balancer? Give scenarios of each kind of balancer based on your experience.
72. What is CloudFormation and why is it used for?
73. Difference between AWS CloudFormation and AWS Elastic Beanstalk?
74. What are the kinds of security attacks that can occur on the cloud? And how can we minimize them?
75. Can we recover the EC2 instance when we have lost the key?
76. What is a gateway?
77. What is the difference between the Amazon RDS, DynamoDB, and Redshift?
78. Do you prefer to host a website on S3? What's the reason if your answer is either yes, or no?
79. How does Amazon CloudFront work as a content delivery network (CDN)?
80. What is Amazon RDS, and what are its key features and benefits?
81. What are the different database engines supported by Amazon RDS? Explain the differences between Amazon RDS for MySQL, PostgreSQL, Oracle, and SQL Server.
82. How does RDS handle database backups and point-in-time recovery? Explain the options available for automated backups and database snapshots.
83. How can you scale an RDS instance? Discuss the options available for scaling compute and storage resources in RDS.
84. What is Amazon CloudWatch, and what are its key features and benefits?
85. How can you monitor AWS resources using CloudWatch? Discuss the different types of CloudWatch metrics and how you can collect and analyse them.

86. Explain the concept of CloudWatch Alarms and how you can use them to set thresholds and trigger actions based on metric conditions.
87. Discuss the integration of CloudWatch with other AWS services, such as Amazon S3, AWS Lambda, and Amazon RDS, and how it enhances monitoring and automation capabilities.
88. What is Amazon SNS, and what are its key features and benefits?
89. How does SNS enable pub/sub messaging? Explain the concepts of topics, subscriptions, and messages in SNS.
90. What are the different protocols supported by SNS for message delivery? Discuss the options available for sending messages via HTTP/S, email, SMS, and mobile push notifications.
91. How can you configure SNS message filtering to selectively deliver messages to different subscribers based on message attributes?
92. What is Amazon ECS, and what are its key features and benefits?
93. Explain the architecture of Amazon ECS and its components, such as clusters, tasks, services, and containers.
94. How do you define and manage containers in Amazon ECS? Discuss the options available for task definitions and container definitions.
95. What is the difference between Amazon ECS Fargate and Amazon EC2 launch types? When would you choose one over the other?
96. How does Amazon ECS handle scaling and load balancing? Discuss the options available for scaling tasks and distributing traffic to containers.
97. How can you integrate Amazon ECS with other AWS services, such as Amazon S3, Amazon RDS, and AWS Lambda?
98. What is Amazon EKS, and what are its key features and benefits?
99. Explain the concept of Kubernetes and how it relates to Amazon EKS.
100. How do you create and manage Kubernetes clusters in Amazon EKS? Discuss the options available for cluster provisioning and management.
101. What is the difference between worker nodes and control plane nodes in Amazon EKS? Explain their roles and responsibilities.
102. How does Amazon EKS handle scaling and high availability for Kubernetes clusters? Discuss the options available for scaling and distributing workloads.
103. What is the Kubernetes API server, and how does it interact with Amazon EKS? Explain the authentication and authorization mechanisms.
104. How can you manage containerized applications in Amazon EKS? Discuss the options available for deploying, updating, and scaling applications.
105. What is the role of Kubernetes namespaces in Amazon EKS? How can you use them to organize and isolate workloads?
106. Explain the concept of Kubernetes pod networking in Amazon EKS. Discuss the options available for networking and communication between pods.
107. How can you monitor and troubleshoot Kubernetes clusters in Amazon EKS? Discuss the options available for logging, monitoring, and debugging.
108. You are working on a project that uses AWS CodePipeline to deploy code to production. The pipeline is failing because of a permissions error. What steps would you take to troubleshoot the issue?

109. You are responsible for managing the AWS infrastructure for a large company. You need to scale the infrastructure to meet the increasing demand for a new product. What steps would you take to scale the infrastructure?
110. You are working on a project that uses AWS Lambda to process large amounts of data. The Lambda functions are not performing as expected. What steps would you take to troubleshoot the issue?
111. You are responsible for monitoring the AWS infrastructure for a company. You notice that there is a sudden increase in the number of errors being logged. What steps would you take to investigate the issue?
112. You are working on a project that uses AWS S3 to store data. You need to create a backup of the data in case of a disaster. What steps would you take to create the backup?
113. You are responsible for managing the AWS security for a company. You need to implement a new security policy. What steps would you take to implement the policy?
114. You are working on a project that uses AWS Elastic Beanstalk to deploy applications. The applications are not starting up as expected. What steps would you take to troubleshoot the issue?
115. You are responsible for managing the AWS costs for a company. You need to reduce the AWS costs without impacting the performance of the applications. What steps would you take to reduce the costs?
116. You are working on a project that uses AWS CloudFormation to create and manage AWS resources. You need to update the CloudFormation template to add a new resource. What steps would you take to update the template?
117. You are responsible for managing the AWS logs for a company. You need to create a dashboard to visualize the logs. What steps would you take to create the dashboard?
118. You are working on a project that uses Amazon VPC to create a private network for a company. You need to create a subnet for the database servers. What steps would you take to create the subnet?
119. You are responsible for managing the Amazon VPC for a company. You need to create a NAT gateway to allow the instances in the private network to access the internet. What steps would you take to create the NAT gateway?
120. You are working on a project that uses Amazon VPC to create a VPN connection to a company's on-premises network. You need to create a VPN gateway and configure the routing. What steps would you take to create the VPN gateway and configure the routing?
121. You are responsible for managing the Amazon VPC for a company. You need to create a security group to control the traffic to and from the instances in the private network. What steps would you take to create the security group?
122. You are working on a project that uses Amazon VPC to create a network load balancer to distribute traffic to the web servers in the private network. What steps would you take to create the network load balancer?
123. You are working on a project that uses ECS to deploy a containerized application. The application is not starting up as expected. What steps would you take to troubleshoot the issue?

124. You are responsible for managing the ECS cluster for a company. You need to scale the cluster to meet the increasing demand for a new product. What steps would you take to scale the cluster?
125. You are working on a project that uses EKS to deploy a containerized application. The application is not performing as expected. What steps would you take to troubleshoot the issue?
126. You are responsible for managing the EKS cluster for a company. You need to update the Kubernetes version of the cluster. What steps would you take to update the version?
127. You are working on a project that uses ECS and EKS to deploy a multi-container application. You need to configure the load balancing between the containers. What steps would you take to configure the load balancing?