

Amazon EC2 Interview Questions

Basic Level Questions (Beginner/Fresher)

1. What is Amazon EC2?
2. What are the features of Amazon EC2?
3. What are the different instance types in EC2?
4. What is the difference between On-Demand, Reserved, and Spot instances?
5. What is the use of security groups in EC2?
6. What is an AMI (Amazon Machine Image)?
7. What is an EBS volume? How is it different from Instance Store?
8. What are key pairs in EC2?
9. How can you connect to an EC2 instance?
10. What are the steps to launch an EC2 instance?
11. What are the default ports open when launching an EC2 instance?
12. Can you stop and start an EC2 instance? What happens to the data?

Intermediate Level Questions (23 Years Experience)

1. What are EC2 instance lifecycle states?
2. What happens when you stop or terminate an EC2 instance?
3. Explain EC2 pricing models with real-world examples.
4. Difference between EC2 Instance Store and EBS volume?
5. What is the use of Elastic IP in EC2?
6. What is the difference between Public IP and Elastic IP?
7. How do you resize an EC2 instance?
8. How can you automate the deployment of EC2 using CloudFormation?
9. What is the difference between EC2 and Lambda?

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10. What happens to your data when an EC2 instance is terminated?
11. How do you attach and detach EBS volumes in EC2?
12. What are placement groups in EC2 and their types?
13. What are the options for load balancing EC2 instances?

Security Related EC2 Questions

1. What are security groups and NACLs?
2. Difference between security group and network ACL?
3. How do you secure an EC2 instance from unauthorized SSH access?
4. What is Bastion Host? How is it used in EC2 architecture?
5. How would you restrict SSH access to a specific IP range?
6. Can security groups be shared across instances?

Advanced / FAANG-Level Questions

1. How do you achieve high availability and fault tolerance using EC2?
2. Explain how to use Auto Scaling with EC2.
3. How do you implement Blue-Green Deployment using EC2 and Load Balancer?
4. How do you monitor and optimize EC2 performance?
5. What are EC2 Spot Fleets and how do they reduce cost?
6. What is the role of EC2 in a microservices-based architecture?
7. Describe a use case where you used EC2 with other AWS services.
8. How would you set up a VPC with public and private subnets to run EC2?
9. How do you handle configuration drift in EC2 instances?
10. How would you use AWS Systems Manager with EC2?

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11. How do you create a custom AMI and use it in an Auto Scaling group?
12. Can you simulate failure of EC2 to test resiliency? How?
13. Whats the difference between a Dedicated Host and Dedicated Instance?
14. How do you configure EBS encryption in an EC2 architecture?
15. Explain EC2 Nitro system and its advantages.
16. How would you automate patching and updates on EC2 instances?
17. How do you troubleshoot EC2 instance boot issues?
18. What is the instance metadata and how can it be accessed securely?
19. How would you secure sensitive data on an EC2 instance at rest and in transit?

Bonus (Scenario-Based Questions)

1. You are running an EC2 instance hosting a web server and it suddenly becomes unresponsive. How would you troubleshoot?
2. You need to migrate your on-premise application to EC2 with minimal downtime. How would you do it?
3. How would you implement a CI/CD pipeline that deploys to EC2 instances?
4. Your EC2 instance is under DDoS attack. What steps do you take?
5. You have a CPU-intensive app. How do you select the right EC2 instance type?