AWS DevOps Interview Questions (4 Years Experience)

AWS Core Services Interview Questions with Detailed Answers

Q: Explain key AWS services used in DevOps.

A: Key AWS DevOps services include:

- CodeCommit: Git-based source control
- CodeBuild: Build and test automation
- CodeDeploy: Automate deployments to EC2/Lambda/ECS
- CodePipeline: CI/CD orchestration
- CloudFormation: Infrastructure as Code
- CloudWatch: Monitoring and logging

Real-time example: We used CodePipeline with CodeCommit, CodeBuild, and CodeDeploy to automate deployment of a microservice architecture to ECS.

Q: Difference between EC2 and Lambda?

A:

Feature	EC2	Lambda
Model	IaaS	Serverless
Runtime	Persistent	Ephemeral (max 15 mins)
Cost	Pay-per-hour or second	Pay-per-invocation
Use Case	Stateful apps, custom configs	Event-driven, short tasks

Real-time example: We used EC2 for a web server needing NGINX tuning, and Lambda for thumbnail generation triggered by S3 uploads.

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Q: How do you manage access control in AWS?

A: Access control is managed via IAM (Identity and Access Management).

Components:

- Users, Groups, Roles
- Policies (JSON-based permissions)
- MFA, access keys, SSO

Best practices:

- Least privilege principle
- Use IAM roles over users for services

Real-time example: We used IAM roles for EC2 to access S3 buckets without storing credentials. Developers had restricted IAM user access with MFA enabled.

Q: How does S3 versioning help in DevOps?

A: S3 versioning keeps multiple variants of an object.

Benefits:

- Rollback to previous versions
- Prevent accidental deletion
- Improve auditing

Real-time example: We stored application artifacts (e.g., JARs, Docker images) in versioned S3 buckets. In case of a bad deployment, we rolled back using the prior version.

Q: Explain use of Auto Scaling and Load Balancer together.

A: Auto Scaling ensures high availability and elasticity by adjusting EC2 capacity.

ALB (Application Load Balancer) distributes traffic across EC2 instances.

Combined Workflow:

1. ALB receives traffic
2. Routes to healthy EC2 instances in ASG
3. ASG scales based on metrics (CPU, etc.)

Real-time example: Our backend API used ASG + ALB. During peak load, ASG scaled from 2 to 10 instances based on CPU, and ALB balanced traffic across AZs.

Q: What are different types of ELBs and when to use which?

A: Types:

1. ALB Application Load Balancer (Layer 7): for HTTP/HTTPS, path-based routing.
2. NLB Network Load Balancer (Layer 4): for high-performance TCP/UDP apps.
3. CLB Classic Load Balancer: legacy use.

Use Case:

- ALB: Web apps, microservices (path-based routing)

- NLB: Financial apps needing low latency

- CLB: Legacy migrations

Real-time example: We used ALB to route `/api` and `/admin` to different target groups in a microservices deployment.