#### **AWS Core Services Interview Questions with Detailed Answers**

Q:	Explain	key AV	/S servi	ces 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

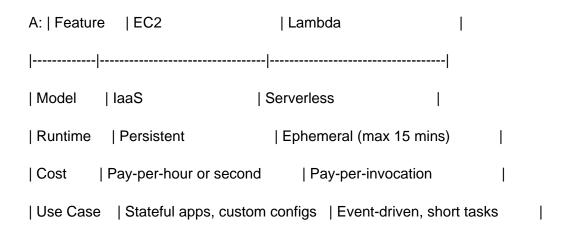
- CodePipeline: CI/CD orchestration

- 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?



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

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.