AWS Developer – Associate (DVA-C02)
Interview Prep Guide

Prepared for GoHackersCloud Students

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Top 25 AWS Developer – Associate Interview Questions

1. What AWS services are commonly used by developers?

   Lambda, API Gateway, DynamoDB, SQS, SNS, Step Functions, Cognito, CloudFormation, CodeBuild, CodeDeploy.

2. How do you manage application secrets in AWS?

   Use Secrets Manager or SSM Parameter Store with KMS encryption, enforce least privilege IAM roles.

3. Explain AWS SDKs and their role in development.

   SDKs simplify calls to AWS services in languages like Python (boto3), Java, Node.js. Handle retries, auth, error handling.

4. How do you build a serverless API in AWS?

   API Gateway + Lambda + DynamoDB backend, integrate with Cognito for auth, CloudWatch for monitoring.

5. What is the difference between synchronous and asynchronous Lambda invocations?

   Sync: caller waits (API Gateway). Async: decoupled (S3 event, SNS). DLQs or EventBridge for retries.

6. How do you handle versioning and aliases in Lambda?

   Versions are immutable snapshots, aliases point to versions, enable weighted traffic shifting for canary releases.

7. How do you optimize DynamoDB performance?

   Use proper partition key design, GSIs/LSIs, on-demand vs provisioned, DAX caching, avoid hot partitions.

8. How do you integrate CI/CD pipelines on AWS?

   CodeCommit → CodeBuild → CodeDeploy → CodePipeline. Or integrate with GitHub/Jenkins.

9. Explain Step Functions and use cases.

   Serverless workflow orchestration. Use for microservice coordination, retries, error handling, long-running tasks.

10. How do you secure an API in AWS?

    Use Cognito/JWT, API keys, WAF, throttling, usage plans, IAM-based authorization.

11. Difference between SQS and SNS?

    SQS = queue (polling), SNS = pub/sub (push). Often used together for fan-out.

12. What are Lambda execution context and cold starts?

    Execution context reused across invocations. Cold start = first init, impacted by runtime, package size, VPC config.

13. How do you debug serverless apps?

    Use CloudWatch logs, X-Ray tracing, AWS SAM CLI local testing.

14. How do you manage application configuration?

    Use AppConfig, SSM Parameter Store, environment variables, avoid hardcoding secrets.

15. What is EventBridge and when to use it?

    Event bus for event-driven architectures, integrates with SaaS, use for decoupling microservices.

16. How do you deploy applications using containers in AWS?

    Use ECS (Fargate/EC2) or EKS, define task definitions, service discovery, ALB ingress.

17. How do you ensure idempotency in AWS Lambda?

    Use DynamoDB conditional writes, SQS deduplication IDs, design functions to handle retries safely.

18. How do you test AWS serverless applications locally?

    Use AWS SAM CLI, LocalStack, mocking services, unit tests with moto library for Python.

19. How do you optimize API Gateway performance?

Enable caching, use edge-optimized APIs, set appropriate throttling, deploy stages.

20. How do you integrate third-party APIs securely?

Use VPC endpoints, private integrations, API keys, Cognito authorizers, Secrets Manager for credentials.

21. How do you monitor Lambda costs?

Use CloudWatch metrics (duration, invocations), X-Ray traces, Cost Explorer, Lambda Power Tuning.

22. How do you implement blue/green deployments with Lambda?

Use aliases with weighted routing, CodeDeploy for canary/linear deployments.

23. How do you manage dependencies in Lambda functions?

Use Lambda layers for shared code, package dependencies with SAM/Serverless framework.

24. What is SAM (Serverless Application Model)?

IaC framework for serverless, simplified CloudFormation syntax, supports local testing.

25. Walk me through designing a chat app backend using AWS.

API Gateway + WebSocket, Lambda for events, DynamoDB for messages, Cognito for auth, S3 for media storage.

How to leverage GoHackersCloud certifications for DVA success

1) Follow GoHackersCloud DVA Learning Path

Hands-on with Lambda, API Gateway, DynamoDB, CI/CD labs.

2) Build Real Serverless Apps

Deploy sample apps (chat app, todo app) and reference in interviews.

3) Practice Coding + SDKs

Work with AWS SDKs in Python/Node, share GitHub repos.

4) STAR Answers

Use stories from debugging labs, CI/CD pipelines, or serverless apps.

5) Portfolio

Show certification badges, app demos, GitHub repos in resume/LinkedIn.

4-Week Prep Plan (GoHackersCloud DVA Path)

Week 1 — Core Developer Services

Lambda, API Gateway, DynamoDB basics, complete GoHackersCloud labs.

Week 2 — CI/CD & Containers

Practice CodePipeline labs, ECS/EKS basics, integrate with GitHub.

Week 3 — Advanced Serverless

Step Functions, EventBridge, Cognito, debugging with SAM/X-Ray.

Week 4 — Mock Interviews

Focus on coding Qs, SDK usage, Lambda scenarios, resume review.

Resume / LinkedIn tips

• Place DVA certification & GoHackersCloud badge near top. • Highlight serverless/CI-CD projects with outcomes. • Link GitHub repos and app demos.

Good luck — use GoHackersCloud labs, practice tests, and mentorship to showcase developer skills in AWS.