AWS Solutions Architect – Associate (SAA-C03)

Interview Prep Guide

Prepared for GoHackersCloud Students

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Top 25 AWS Solutions Architect – Associate Interview Questions

1. Explain the AWS Shared Responsibility Model.

   AWS manages the cloud infrastructure, while customers manage security in the cloud (data, apps, IAM, configs).

2. How do you design a highly available web application in AWS?

   Use ALB, Auto Scaling Groups, multi-AZ RDS, S3 for static content, CloudFront for CDN, Route 53 for DNS failover.

3. Difference between Vertical vs Horizontal scaling in AWS?

   Vertical = bigger instance size, Horizontal = more instances with load balancing. Horizontal preferred for elasticity.

4. Explain the difference between Multi-AZ and Read Replica in RDS.

   Multi-AZ = HA/failover, synchronous replication. Read Replica = scaling reads, async replication.

5. What are design considerations for VPC subnets?

   Separate public/private subnets, use NAT for private outbound, apply Security Groups and NACLs, route tables per subnet.

6. How would you design a secure VPC for a 3-tier app?

   Public subnet for ALB, private for app servers, private isolated for DB. Security groups layered. Use VPC endpoints for S3/DynamoDB.

7. What are AWS Well-Architected Framework pillars?

   Operational Excellence, Security, Reliability, Performance Efficiency, Cost Optimization, Sustainability.

8. How to choose between S3, EBS, and EFS?

   S3: object storage, EBS: block storage, single EC2, EFS: shared POSIX file system for multiple EC2s.

9. How does Elastic Load Balancer support fault tolerance?

   Distributes traffic across multiple AZs, health checks, integrates with Auto Scaling.

10. Explain use cases for CloudFront.

    Global CDN, caching static/dynamic content, DDoS protection with Shield, lower latency.

11. How do you migrate a monolith to AWS?

    Lift-and-shift to EC2, then refactor to microservices (ECS/EKS/Lambda), RDS migration with DMS.

12. How do you secure data at rest and in transit?

    Use KMS/SSE for at rest, TLS for in transit, enforce encryption policies, enable CloudTrail logging.

13. How would you optimize AWS costs for a web app?

    Rightsize EC2, Spot/Reserved instances, S3 lifecycle, use CloudWatch alarms, auto-scheduling for non-prod.

14. How do you design multi-region disaster recovery?

    Active-active or active-passive, Route 53 latency/health checks, cross-region S3 replication, Aurora Global Database.

15. What are IAM best practices?

    Least privilege, IAM roles instead of keys, MFA, SCPs, IAM Access Analyzer.

16. Explain Infrastructure as Code benefits.

    CloudFormation/Terraform provide repeatability, automation, version control, drift detection.

17. Difference between Security Groups and NACLs.

    SGs: stateful, instance-level, allow rules only. NACLs: stateless, subnet-level, allow/deny rules.

18. Explain Route 53 routing policies.

    Simple, weighted, latency, geolocation, failover, multi-value. Use for blue/green and failover designs.

19. What is Amazon Aurora and why use it?

RDS-compatible DB with better performance, replication, serverless option, global database.

20. How does CloudWatch help architects?

Monitors metrics/logs, sets alarms, dashboards, integrates with Auto Scaling and Ops automation.

21. Explain lift-and-shift vs re-architecture.

Lift-and-shift: migrate as-is. Re-architecture: redesign for cloud-native (microservices, serverless).

22. How do you design secure cross-account access?

Use IAM roles with trust policies, AWS Organizations SCPs, cross-account VPC peering or Transit Gateway.

23. Explain caching strategies in AWS.

Use ElastiCache (Redis/Memcached), CloudFront, cache-aside vs write-through patterns.

24. How to handle compliance requirements in AWS?

Choose compliant regions, use Config, GuardDuty, Security Hub, encrypt data, audit with CloudTrail.

25. Walk me through designing an e-commerce architecture on AWS.

Route 53 → ALB → Auto Scaling EC2/EKS → RDS/Aurora → S3/CloudFront for static → ElastiCache → CloudWatch/GuardDuty for monitoring.

How to leverage GoHackersCloud certifications for SAA success

1) Align with GoHackersCloud SAA Learning Path

Follow the structured plan (videos → labs → practice tests). Focus on design labs.

2) Reference Architecture Labs

Highlight VPC, multi-AZ, RDS failover labs in interviews as real-world scenarios.

3) Use Practice Tests

Take GoHackersCloud SAA mocks under timed conditions.

4) STAR Stories from Labs

Frame design decisions as STAR answers for scenario questions.

5) Resume Portfolio

Include GoHackersCloud certification badge and links to architecture diagrams.

4-Week Prep Plan (GoHackersCloud SAA Path)

Week 1 — Core AWS Services

EC2, S3, IAM, VPC basics labs, watch GoHackersCloud SAA intro videos.

Week 2 — Networking & HA

Deep dive into VPC, ALB, Auto Scaling, RDS Multi-AZ, practice design questions.

Week 3 — Advanced Services

Aurora, DynamoDB, CloudFront, KMS, complete scenario-based labs.

Week 4 — Mock Interviews

Full-length mocks, finalize resume, practice top 25 SAA Qs, mentor feedback.

Resume / LinkedIn tips

• Place SAA certification & GoHackersCloud badge near top. • Highlight 3–5 architecture projects with outcomes. • Add GitHub diagrams and lab documentation.

Good luck — use GoHackersCloud labs, practice tests, and mentorship to showcase real AWS architecture expertise.