



AWS Certified Solutions Architect Associate SAA-C02 Course Outline

Introduction:

- Course Introduction
- About the Training Architect
- Exam Guide

AWS Fundamentals:

- The Building Blocks of AWS: Availability Zones and Regions
- Who Owns What in the Cloud?
- Compute, Storage, Database, and Networking
- What is the Well-Architected Framework
- Aws Fundamentals Exam Tips

Identity and Access Management (IAM)

- Securing The root Account
- Controlling User's Actions with IAM Policy Documents
- Permanent IAM Credentials
- IAM Exam Tips
-

Simple Storage Service (S3)

- S3 Overview
- Securing your bucket with s3 block public access
- Hosting a Static website using S3
- Versioning Objects in S3
- S3 Storage classes
- Lifecycle Management with S3
- S3 Object Look and Glacier Vault Look
- Encrypting S3 Objects
- Optimizing S3 Performance
- Backing up Data with S3 replication
- S3 Exam Tips

Elastic Compute Cloud (EC2)

- EC2 Overview
- Demo: Launching an EC2 instance
- AWS Command Line
- Using Role
- Security Group and Bootstrap Scripts
- EC2 Metadata and user data
- Networking with EC2
- Optimizing with EC2 Placement Group
- Solving Licensing issue with Dedicated Hosts
- Timing workloads with Spot instances and Spot Fleets
- Ec2 Exam Tips

Elastic Block Storage (EBS) and Elastic File System (EFS)

- EBS overview
- Volumes and Snapshot
- Protecting EBS Volumes with Encrypting
- EC2 Hibernation
- EFS Overview
- Fsx Overview
- Amazon Machine Images: EBS vs. Instance Store
- AWS Backup
- EBS Exam Tips

Databases on AWS

- Relational Database Service (RDS Overview)
- Increasing Read Performance with Read Replica
- Whats is amazon Aurora
- DynamoDB
- When do you use DynamoDB Transactions
- Saving your data with DynamoDB Backups
- Taking your data Global with DynamoDB Streams and Global Tables
- Database Exam Tips

Virtual Private Cloud (VPC) Networking

- VPC Overview
- Demo: Provisioning a VPC - Part 1
- Demo: Provisioning a VPC - Part 2
- Using NAT gateway for internet access
- Protecting your resources with security groups
- Controlling subnet traffic with Network ACLs
- Private Communication Using VPC Endpoints
- Building Solutions across VPCs with Peering
- Network Privacy with AWS Private Link
- Securing your network with VPN CloudHub
- Connecting on premise with direct connect
- Simplifying Networks with transit gateway
- VPV Networking Exam Tips

Route 53

- DNS 101
- Register a Domain Name - Demo
- Route 53 Routing Policies Available on AWS
- Route 53: Simple Routing Policy - Demo
- Route 53: Weighted Routing Policy - Demo
- Route 53: Latency-Based Policy - Demo
- Route 53: Failover Routing Policy - Demo
- Route 53: Geolocation Routing Policy - Demo
- Route 53: Geo Proximity Routing Policy (Traffic Flow Only) - Demo
- Route 53: Multivalue Answer Policy - Demo
- Route 53 Exam Tips

Elastic Load Balancing (ELB)

- ELB overview
- Using Application Load Balancer
- Extreme Performance with Network Load Balancers
- Using the classic load balancer
- Getting “Stuck” with sticky sessions
- Leaving the load balancer with Deregistration Delay
- ELB Exam Tips

Monitoring

- Cloudwatch Overview
- Application Monitoring with Cloudwatch logs
- Monitoring Exam Tips

High Availability and Scaling

- Horizontal vs vertical scaling overview
- What are launch templates and launch configurations
- Scaling EC2 instances with auto scaling
- Diving deeper into auto scaling policies
- Scaling relational databases
- Scaling non-relational databases
- High availability and auto scaling Exam Tips

Decoupling workflows

- Decoupling workflows overview
- Messaging with SQS
- Sidelining Messages with dead-letter queues
- Ordered messages with SQS FIFO
- Delivering messages with SNS
- Fornting Applications with API Gateway
- Decoupling workflows Exam Tips

Big Data

- Exploring large Redshift Database
- Processing Data with EMR (Elastic MapReduce)
- Streaming Data with Kinesis
- Amazon Athena and AWS Glue
- Visualizing Data with QuickSight
- Analyzing Data with Elasticsearch
- Big Data Exam Tips

Serverless

- Serverless Overview
- Computing with Lambda
- Container Overview
- Running Containers in ECS or EKS
- Removing Servers with Fargate
- Amazon EventBridge (CloudWatch Events)
- Serverless Architecture Exam Tips

Security

- DDoS Overview
- Logging API Calls with CloudTrail
- Protecting Applications with Shield
- Filtering Traffic with AWS WAF
- Guarding Your Network with GuardDuty
- Monitoring S3 Buckets with Macie
- Securing Operating Systems with Inspector
- Managing Encryption Keys with KMS and CloudHSM
- Storing Your Secrets in Secrets Manager
- Storing Your Secrets in Parameter Store
- Temporarily Sharing S3 Objects Using Presigned URLs or Cookies
- Advanced IAM Policy Documents
- AWS Certificate Manager
- Security Exam Tips

Automation

- Why Do We Automate?
- CloudFormation
- Elastic Beanstalk
- Systems Manager
- Automation Exam Tips

Caching

- Caching Overview
- Global Caching with CloudFront
- Caching your data with ElastiCache and DAX
- Fixing IP Caching with Global Accelerator
- Caching Exam Tips

Governance

- Managing accounts with Organizations
- Sharing Resources with AWS RAM
- Setting up cross-account role access
- Inventory Management with AWS Config
- Offloading Active Directory to Directory Service
- Exploring with Cost Explorer
- Using AWS Budgets
- Auditing with Trusted Advisor
- Using AWS Budgets
- Auditing with Trusted Advisor
- Governance Exam Tips

Migration

- Migrating Data with AWS Snow Family
- Storage Gateway
- AWS DataSync
- AWS Transfer Family
- Moving to the cloud with Migration HUB
- Migration Exam Tips