

AWS Certified Solutions Architect – Associate (SAA-C03)

Level: Associate

Duration: 40–50 Hours

Course Overview

This course prepares you for the **AWS Certified Solutions Architect – Associate (SAA-C03)** certification. It covers core AWS services, architecture best practices, and the skills needed to design scalable, reliable, and cost-effective solutions on the AWS Cloud.

Course Objectives

- Understand AWS architectural principles and services
 - Design secure, scalable, and high-performing systems on AWS
 - Identify and select the appropriate AWS services for specific use cases
 - Prepare for and pass the AWS SAA-C03 certification exam
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Course Outline

Module 1: Introduction to AWS Cloud and Certification

- AWS global infrastructure: Regions, AZs, and Edge Locations
 - Overview of AWS services and use cases
 - Introduction to the AWS Well-Architected Framework
 - Exam overview and certification path
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Module 2: Compute Services

- Amazon EC2 instances, AMIs, and EBS volumes
- Auto Scaling and Elastic Load Balancing (ELB)
- AWS Lambda and serverless fundamentals
- Elastic Beanstalk and AWS Fargate basics

Module 3: Storage Solutions

- Amazon S3: Buckets, versioning, lifecycle policies
- Amazon EBS vs. EFS
- Amazon Glacier for long-term storage
- Storage gateway and hybrid storage scenarios

Module 4: Networking and Content Delivery

- VPC fundamentals: Subnets, route tables, NAT gateways
- Internet gateways and VPC peering
- Security groups vs. network ACLs
- Route 53 and CloudFront basics

Module 5: Databases on AWS

- Amazon RDS: Supported engines and backup options
- Amazon DynamoDB: Key concepts and best practices
- Amazon Aurora overview
- Redshift and ElastiCache introduction

Module 6: Security and Identity Management

- AWS IAM: Users, roles, groups, and policies
- Shared Responsibility Model
- Encryption options: KMS and S3 encryption
- AWS Shield, WAF, and GuardDuty overview

Module 7: Monitoring, Logging, and Automation

- Amazon CloudWatch for monitoring and alerts
 - AWS CloudTrail for auditing
 - AWS Config and Trusted Advisor
 - Infrastructure as Code with CloudFormation
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Module 8: Designing Resilient and Cost-Optimized Architectures

- High availability and fault-tolerant design
 - Designing for elasticity and scalability
 - Cost optimization strategies
 - Disaster recovery and backup plans
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Module 9: Practice and Exam Preparation

- Domain-wise question breakdown
 - Practice questions and mock exams
 - Exam strategies and time management
 - Final review and Q&A
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Target Audience

- IT professionals, system administrators, developers
 - Cloud practitioners pursuing AWS certification
 - Anyone designing or deploying cloud solutions on AWS
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Prerequisites

- Basic understanding of cloud concepts
- Prior exposure to AWS services (recommended but not mandatory)