

# AWS Solutions Architect Associate (SAA-C03) Training – Infrastructure, Serverless, and Certification

## Module 1 – AWS Foundations and Cloud Concepts

- Introduction to Cloud Computing
- IaaS, PaaS, and SaaS Models
- Overview of Amazon Web Services
- AWS Regions and Availability Zones
- Edge Locations and AWS Global Infrastructure
- AWS Shared Responsibility Model
- AWS Management Console, AWS CLI, and Core Concepts
- Overview of the AWS Cost Structure

## Module 2 – AWS Security, IAM, and Governance

- AWS Identity and Access Management
- IAM Users, Groups, Roles, and Policies
- Multi-Factor Authentication (MFA)
- Permissions and the Principle of Least Privilege
- AWS Organizations
- AWS KMS and Data Encryption
- AWS WAF and AWS Shield
- Security Best Practices for the SAA-C03 Exam

## Module 3 – AWS Networking and Connectivity

- Amazon VPC
- Public and Private Subnets
- Route Tables
- Internet Gateway and NAT Gateway
- Security Groups and Network ACLs
- Amazon Route 53 and DNS Management
- Amazon CloudFront and Content Distribution
- Introduction to AWS VPN and Hybrid Architectures
- Hands-On Workshop: Creating a Complete Secure VPC

## Module 4 – AWS Compute Services

- Amazon EC2
- Instance Types and Use Cases
- Amazon Machine Images

- Elastic Load Balancing
- Auto Scaling Groups
- Bastion Hosts and Secure Access
- Introduction to Amazon ECS, Amazon EKS, and AWS Fargate
- Comparing EC2, Containers, and Serverless
- Hands-On Workshop: Deploying a Highly Available Web Infrastructure

## Module 5 – AWS Storage and Databases

- Amazon S3 and Storage Classes
- Versioning, Lifecycle Policies, and Archiving
- Amazon S3 Glacier
- Amazon EBS, Amazon EFS, and Amazon FSx
- Amazon RDS
- Amazon Aurora
- Amazon DynamoDB
- AWS Backup and AWS Storage Gateway
- Comparing S3, EBS, EFS, FSx, RDS, and DynamoDB
- Hands-On Workshop: Deploying a Secure Amazon RDS Database

## Module 6 – Serverless Architectures on AWS

- Introduction to Serverless Computing
- AWS Lambda
- Event Management
- IAM Permissions for Lambda
- Amazon API Gateway
- Deploying REST APIs
- Environment Variables
- Monitoring Lambda Functions
- Hands-On Workshop: Creating a Serverless API with Lambda and API Gateway

## Module 7 – Event-Driven Architecture and Application Integration

- Amazon SNS
- Amazon SQS
- Amazon EventBridge
- AWS Step Functions
- Amazon S3 Triggers
- DynamoDB Streams
- Amazon Cognito
- Comparing SQS, SNS, EventBridge, and Step Functions
- Hands-On Workshop: Creating a Simple Event-Driven Architecture

## Module 8 – High Availability, Resilience, and Architecture Best Practices

- AWS Well-Architected Framework
- The Six Pillars of the Well-Architected Framework

- High Availability and Multi-AZ Architectures
- Scalability and Elasticity
- Resilience and Fault Tolerance
- Disaster Recovery and Backup Strategies
- AWS Elastic Disaster Recovery
- Performance Optimization
- Cost Optimization
- Architecture Scenarios for the SAA-C03 Certification

## Module 9 – Monitoring, Auditing, and Automation

- Amazon CloudWatch
- AWS CloudTrail
- AWS Config
- AWS Health Dashboard
- AWS Trusted Advisor
- Introduction to Infrastructure as Code
- AWS CloudFormation
- Introduction to Terraform
- Monitoring, Logging, and Auditing the AWS Environment

## Module 10 – Preparation for the AWS SAA-C03 Certification

- Overview of the AWS Certified Solutions Architect – Associate Exam
- Domains Covered in the SAA-C03 Exam
- Analyzing Scenario-Based Questions
- Methodology for Selecting the Best AWS Service
- Comparing Frequently Tested AWS Services
- Common Exam Pitfalls
- Review Quizzes
- Practice Exam and Detailed Review