

## AWS Solutions Architect Associate Course content

35 hours

### Introduction

#### Let's get started with AWS

- AWS History
- Private cloud vs Public Cloud
- Basic understanding on Virtualization
- Region & AZ
- Cloud Computing Advantages
- Shared Responsibility model
- AWS Global Infrastructure
- Difference between PaaS, SaaS and IaaS
- AWS Account creation steps

### IAM & AWS CLI

#### Additional topics

- AWS Policy Simulator
- AWS EC2 Instance Metadata
- AWS SDK Overview
- Security Token Service (STS)
- Identity Federation & Cognito
- Directory Services
- Organizations
- Resource Access Manager (RAM)
- AWS Single Sign On (SSO)

### EC2

#### Additional topics

- EC2 auto recovery
- EC2 On demand, Reserved and Spot instances.
- Placement Groups
- EC2 user data
- Enhanced Fabric Adapter
- EC2 Hibernate
- Elastic Network Interfaces (ENI) - Overview
- ENI - Extra Reading
- EC2 Hibernate
- EC2 Hibernate - Hands On
- EC2 - Advanced Concepts (Nitro, vCPU, Capacity Reservations)

## **Storage**

- EBS
- EFS
- S3
- S3 additional concepts
  - S3 Versioning
  - S3 Encryption
  - S3 Security & Bucket Policies
  - S3 Websites
  - S3 CORS
  - S3 CORS Hands On
  - S3 Consistency Model
  - S3 MFA Delete
  - S3 Access Logs
  - S3 Pre-signed URLs
  - Athena
  - S3 Lock Policies & Glacier Vault Lock

## **Glacier**

### **Storage extras**

- AWS Snow Family Overview
- Architecture: Snowball into Glacier
- Amazon FSx
- Storage Gateway
- Amazon FSx File Gateway
- AWS Transfer Family
- All AWS Storage Options Compared

## **High Availability and Scalability – ELB & ASG**

- Additional topics
  - Gateway Load Balancer (GWLB)

## **RDS and ElastiCache**

- Additional topics
  - Aurora
  - RDS Encryption + Security

## **Route 53**

## **S3 & Athena**

## **CloudFront and Global Accelerator**

Additional topics

CloudFront Signed URL / Cookies

## **SQS, SNS, Kinesis and MQ**

Additional topics

SQS Queue Access Policy

SQS - Message Visibility Timeout

SQS - Dead Letter Queues

SQS - Delay Queues

SQS - Long Polling

SQS - Request Response

SQS - FIFO Queues

SQS + Auto Scaling Group

Amazon SNS

SNS and SQS - Fan Out Pattern

## **ECS, Fargate, EKS and ECR**

### **Serverless Concept**

#### **Lambda**

Additional topics

Lambda@Edge

#### **API gateway**

Additional topics

API Gateway Security

#### **AWS Cognito Overview**

#### **Serverless Application Model (SAM) Overview**

#### **Dynamo DB**

## **Redshift**

## **Glue**

## **Neptune**

## **Amazon ElasticSearch is now OpenSearch**

## **ElasticSearch / OpenSearch**

## **CloudWatch, CloudTrail and Config**

Additional topics

EventBridge Overview

## **Security and Encryption- KMS, SSM, Parameter Store, CloudHSM, WAF and Shield**

### Additional topics

- Encryption 101
- KMS Overview
- KMS Key Rotation
- SSM Parameter Store Overview
- AWS Secrets Manager
- CloudHSM
- Shield - DDoS Protection
- Web Application Firewall (WAF)
- GuardDuty
- Inspector
- Macie

## **Networking – VPC**

### Additional topics

- Bastion Hosts
- VPC Reachability Analyzer
- VPC Peering
- VPC Endpoints
- VPC Flow Logs
- AWS PrivateLink - VPC Endpoint Services
- AWS ClassicLink
- Transit Gateway
- VPC Traffic Mirroring

## **Disaster Recovery and Migration**

### Additional topics

- Database Migration Service (DMS)
- DataSync - Overview
- AWS Backup

## **Bonus Topics**

- High Performance Computing (HPC) on AWS
- CICD Introduction
- CloudFormation Intro
- Step Functions & SWF
- EMR
- OpsWorks
- AWS Workspaces
- AppSync
- Cost Explorer

Well Architected Framework  
Trusted Advisor

**Interview prep**

**Exam Prep**

**e-gain Certificate**