

Course Agenda

AWS – Solution Architect Associate Level

Lesson 01 - Course Introduction

- Course Introduction

Lesson 02 - AWS Overview

- Section Introduction
- Introduction to AWS
- Core AWS Services
- Accessing AWS Services
- Assisted Practice: Set up the AWS Command Line Interface
- Key Takeaways

Lesson 03 - Amazon Elastic Compute Cloud

- Section Introduction
- Introduction to Amazon EC2
- Amazon Machine Image
- Assisted Practice: Create a Linux-based EC2 Instance
- Assisted Practice: Create a Windows-based EC2 Instance
- Assisted Practice: Create a Custom AMI
- Assisted Practice: Create an Instance Using a Custom AMI
- Introduction to Amazon EBS
- EBS Snapshot
- Assisted Practice: Create and Attach an EBS Volume to a Linux Instance
- Assisted Practice: Create a Snapshot of an Existing EBS Instance
- Elastic IP Address
- EC2 Instance Metadata

- Elastic File System
- Difference between EFS and EBS
- EC2 Instance Pricing
- AWS EC2 Best Practices
- Amazon FSx
- High Performance Computing (HPC)
- Key Takeaways
- Setting up an Instance with EBS Volume and Snapshot

Lesson 04 - Amazon Storage Services

- Section Introduction
- Introduction to Amazon S3
- Components of Amazon S3
- Assisted Practice: Creating an S3 bucket
- Version Control in Amazon S3
- Assisted Practice: Configuring Bucket Versioning
- Static Web Hosting
- Amazon S3 Policies
- Assisted Practice: Configure an S3 Bucket for Static Website Hosting
- Amazon S3 Storage Classes
- Amazon S3 Pricing
- Amazon S3 Select and S3 Glacier Select
- Sharing an S3 bucket between multiple accounts
- Backup and DataSync
- Amazon CloudFront
- Assisted Practice: Configure a new CloudFront distribution with an S3 bucket
- AWS Snowball
- Amazon Athena and Macie
- Key Takeaways
- Setting Up a CloudFront Distribution with an S3 Bucket



Lesson 05 - Amazon Virtual Private Cloud

- Section Introduction
- Introduction to Amazon VPC
- Assisted Practice: Create a Custom VPC
- Amazon VPC Components
- IP Addresses
- Elastic Network Interface
- VPCs and Subnets
- Internet Gateways
- Network Address Translation (NAT) Gateway
- Assisted Practice: Create a Public and Private Subnet
- Controlling Traffic in Amazon VPC
- Assisted Practice: Create and Configure a Custom Route Table
- VPC Peering
- Assisted Practice: Create and Accept a VPC Peering Connection
- Bastion Host
- Direct Connect
- Virtual Private Network (VPN) Connections
- Auto Scaling
- Amazon Elastic Load Balancer
- Types of Amazon Load Balancers
- Assisted Practice: Set Up an Auto scaled Environment
- Key Takeaways
- Set Up Multiple Virtual Networks on the AWS Cloud

Lesson 06 - Databases on AWS

- Section Introduction
- Introduction to Databases
- Amazon Relational Database Service (RDS)
- Assisted Practice: Create an RDS Database Instance
- Amazon Aurora



- Amazon Redshift
- Assisted Practice: Create an Amazon Redshift Cluster
- Amazon DynamoDB
- Assisted Practice: Create a Table Using the DynamoDB Console
- Amazon ElastiCache
- Key Takeaways
- Create and Query a Database Table with Amazon DynamoDB

Lesson 07 - Amazon Route 53

- Section Introduction
- Domain Name System (DNS)
- Introduction to Amazon Route 53
- Amazon Route 53 Concepts and Terminologies
- Amazon Route 53 Policies
- Assisted Practice: Register a New Domain Name
- Assisted Practice: Create a Public Hosted Zone
- Amazon Route 53 Best Practices
- Amazon Route 53 Costs
- Limitations of Amazon Route 53
- Key Takeaways
- Register a New Domain and Create a Hosted Zone and a Record Set

Lesson 08 - IAM and Security on AWS

- Section Introduction
- Introduction to Identity and Access Management
- Terminologies in AWS IAM
- IAM Users
- Assisted Practice: Creating an IAM user
- IAM Groups
- Assisted Practice: Creating and Adding IAM user to an IAM group



- IAM Roles
- Assisted Practice: Creating an IAM role for an IAM user
- IAM Policies
- Types of IAM Policies
- Assigning IAM roles to Amazon Services
- Assisted Practice: Creating an IAM role for Amazon EC2 Service
- Features of AWS IAM
- AWS Directory Service
- Resource Access Manager
- AWS Organizations
- AWS Single Sign-On
- Assisted Practice: Enabling AWS Single Sign-On for a user
- AWS Multi Factor Authentication
- Assisted Practice: Enable MFA for the root user
- Key Takeaways

Secure the Access to AWS Services

Lesson 09 - Application and Serverless Services in AWS

- Section Introduction
- Introduction to AWS Application Services
- Amazon Simple Queue Service
- Assisted Practice: Configuring Amazon SQS Using the AWS Console
- Amazon Simple Notification Service (SNS)
- Assisted Practice: Setting Up Amazon SNS Notifications
- Amazon SNS vs. Amazon SQS
- Amazon Simple Workflow Service (SWF)
- Amazon API Gateway
- Assisted Practice: Setting Up API Methods to Access an Amazon S3 Bucket
- Amazon Elastic Transcoder
- Amazon Kinesis
- Application Services Best Practices
- Amazon WorkSpaces
- Introduction to AWS Serverless Services



- AWS Lambda
- Assisted practice: API with Lambda proxy integration
- AWS Serverless Application Model
- Amazon Elastic Container Service
- Key Takeaways

Build a Serverless Website in the AWS Cloud

Lesson 10 - Secure and Highly Available Architecture

- Section Introduction
- AWS Well Architected Framework
- Five Pillars of AWS Well Architected Framework
- AWS CloudFormation
- Create an Amazon EC2 Instance Using AWS CloudFormation
- AWS Elastic Beanstalk
- AWS WAF and AWS Shield
- AWS Key Management Service
- AWS Best Practices
- Accessing AWS References
- Key Takeaways

