

Course Agenda

AWS Certified Solution Architect Professional Certification

Lesson 01 - Introduction

Lesson 02 - Data Stores

- Introduction
- Concepts
- Glacier
- Elastic Block Storage
- Elastic File System
- Storage Gateway
- WorkDocs
- EC2 Databases
- RDS
- Deploy an Amazon RDS Multi-AZ and Read Replica in AWS

Lesson 03 - Networking

- Introduction
- Concepts
- Network to VPC Connectivity
- VPC to VPC Connectivity
- Internet Gateways
- Routing
- Enhanced Networking
- Route 53
- CloudFront
- Elastic Load Balancers
- Creating a Multi-Region Network with VPC Peering Using SGs, IGW, and RTs
- Creating and Configuring a Network Load Balancer in AWS
- Troubleshooting Amazon EC2 Network Connectivity

Lesson 04 - Security

- Introduction
- Concepts
- Multi-Account Management
- Network Controls and Security Groups
- Troubleshooting AWS Network Connectivity: Security Groups and NACLs
- Hands-On Lab
- AWS Directory Services
- Credentials and Access Management
- Encryption
- Distributed Denial of Service Attacks
- IDS and IPS
- Service Catalog

Lesson 05 - Migrations

- Introduction
- Migration Strategies
- Cloud Adoption Framework
- Hybrid Architecture
- Migration Tools
- Network Migrations and Cutovers
- Snow Family
- Migrating from a Relational Database to DynamoDB
- Using the AWS DMS to Migrate Data to an Aurora Database

Lesson 06 - Architecting to Scale

- Introduction for Architecting to Scale
- Introduction
- Concepts
- Auto-Scaling
- Kinesis
- DynamoDB Scaling

- CloudFront Part 2
- SNS
- SQS
- Scaling EC2 Using SQS
- Lambda, Serverless Application Model and EventBridge
- Simple Workflow Service
- Step Functions and Batch
- Coordinating AI Services with Step Functions
- Elastic MapReduce

Lesson 07 - Business Continuity

- Introduction
- Concepts
- AWS Continuum of HA
- Storage HA Options
- Compute HA Options
- Database HA Options
- Network HA Options

Lesson 08 - Deployment and Operations Management

- Introduction
- Types of Deployments
- Continuous Integration and Deployment
- Elastic Beanstalk
- CloudFormation
- Understanding CloudFormation Template Anatomy
- Elastic Container Service
- API Gateway
- Management Tools
- AWS System Manager
- Enterprise Apps
- Machine Learning Landscape

Lesson 09 - Cost Management

- Introduction
- Concepts
- Cost Optimization Strategies
- Tagging and Resource Groups
- Spot and Reserved Instances
- Cost Management Tools