

AWS Solution Architect Associate level

Week 1:

Module 1: Leveraging Global Infrastructure

- On-Premises Infrastructure Mapped to AWS
- AWS Global Infrastructure
- Authenticating to AWS
- Federation with AWS Security Token Service

Lab 1: Working with Amazon Identity and Access Management

Module 2: Extending On-Premises into the Cloud

- Virtual Private Cloud (VPC) concepts and security
- VPC Peering
- Use Cases
- VPC consideration

Lab 2: Extending On-Premises into the Cloud

Module 3: Computing in the Cloud

- Compute Capacity in the AWS Cloud: Amazon EC2
- Elastic Network Interface
- Architectural Consideration
- Amazon EC2 Security

Lab 3: Working with Amazon EC2

Week 2:

Module 4: Designing Storage Subsystems Group

- Block versus object storage
- Amazon Elastic Block Store
- Amazon S3 and Amazon Glacier
- Manage Encryption keys using AWS Key management service

Group Discussion 1: Forklifting an existing application

Module 5: Distributed Environments

- Elastic Load Balancing vs Do-It-Yourself load balancer
- Amazon Route 53

Module 6: Choosing a Datastore

- Data Storage in the Cloud
- NoSQL Database: Amazon DynamoDB
- Managed Relational Database: Amazon Relational Database Service
- Migrate Existing Database to Amazon RDS

Week 3:

Module 7: Designing Web-Scale Media Hosting

- Web-Scale Media Hosting Using Amazon S3
- Amazon CloudFront
- Securing your Contents

Module 8: Event-Driven Scaling

- Monitoring Your AWS Resources Using Amazon CloudWatch
- Track Events Using Amazon CloudTrail
- On-Demand Scaling: Auto Scaling
- Scaling Datastore

Lab 4: Working with Auto Scaling

Group Discussion 2 : WebApplication

Module 9: Infrastructure as Code

- Manual vs. Automated Configuration
- Automate Everything Through AWS CloudFormation
- Facts About AWS Application Management services

Lab 5: Exploring CloudFormation

Week 4:

Module 10: Orchestrating Batch Processing

- Amazon Simple Queue Service
- Amazon Simple Notification Service
- Amazon Simple Workflow
- Amazon Simple Email Service
- Use Amazon CloudSearch to set Up a Search solution

Lab 6 : Creating a Batch Processing Cluster

Group Discussion 3: Batch Processing

Module 11: Reviewing Large Scale Design Patterns

- Stream Processing
- Sensor Network Data Ingestion and Processing
- Mobile Gaming
- AWS Mobile Solution
- Transcode and Serving Video Files with AWS

Week 5:

Module 12: Designing-for-cost

- Fundamentals of Cost optimization
- Understanding the Amazon EC2 Pricing Model
- Cost-Conscious Decisions
- Total Cost of Ownership
- Amazon EC2 Cost Calculation Exercise

Module 13: Planning for High Availability and Disaster Recovery

- High Availability vs Fault Tolerance
- Common Patterns of Disaster Recovery on AWS