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AWS Certified Solutions Architect - Associate

(Training leading to AWS Certified Solutions Architect - Associate Exam)

Duration: 40 - 50 Hours

Course Outcome:

By being an AWS Certified Solution Architect - Associate, should be able to evaluate the requirements of the organization or the businesses and make architectural recommendations for implementation and deployment of the application on AWS.

While completing this course, the participants should be able to demonstrate these skills:

- Launch different servers like Linux, Windows, Mac and Manage Storages for Servers and Backups
- Design the overall networking environment for servers
- Scaling Servers based on needs using Auto Scaling
- Deploy, Manage and Scale applications using container orchestration service
- Distributing traffic using Load Balancers
- Monitor Server Resources and Account activities
- Setup Database Engines and Secure Servers and Services
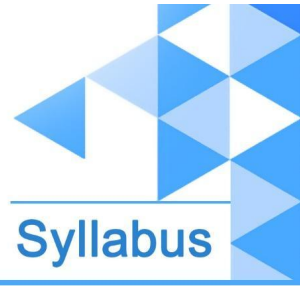
- Storing files securely using Object Storage method and Share Storage Disks among Servers via Network
- Data Migrations and Data Transfer
- Understand different encryption methods and Application level integration services
- Speed up hosted websites using Content Delivery Network

Syllabus

Section 1: **Fundamentals of AWS Cloud Computing**

❏ Introduction to Cloud Computing

❏ Cloud Environment Architecture

❏ Cloud Computing Models

❏ Introduction to Amazon Web Services

❏ AWS Global Infrastructure

Section 2: **Elastic Compute Cloud**

❏ Launching our first EC2 instance

❏ EC2 instance types & Pricing Models

❏ Creating AMI and Image Templates

❏ Understanding Security Groups - a Server side Firewall

Section 3: **Virtual Private Cloud**

❏ Introduction to Network Switches & Virtual Private Cloud

- ❏ VPC & Subnets
- ❏ Private and Public Subnets
- ❏ Internet Gateways, VPC Peering & NAT Gateways
- ❏ VPN Setup
- ❏ IP Addressing in AWS

Section 4: **Storage**

- ❏ Introduction to Block & Object storage mechanism
- ❏ Introduction to Elastic Block Store - EBS
- ❏ EBS Snapshots
- ❏ EBS Volume Types
- ❏ Instance Store Volumes

- ❏ Introduction to Simple Storage Service (S3)
- ❏ Features of S3
- ❏ Storage Types
- ❏ Static Website Hosting
- ❏ Versioning
- ❏ Life Cycle Policy
- ❏ Cross Region Replication
- ❏ Encryption
- ❏ Basics of Athena

- ❏ Introduction to EFS
- ❏ Connect a drive via network
- ❏ Share the drive among multiple servers

Section 5: **Elastic Load Balancers and Elasticity**

❏ Understanding High Availability Configuration

❏ ELB Configuration with Classic and Application Load Balancers

❏ Auto Scaling

Section 6: **Identity & Access Management**

❏ Understanding the IAM Policies

❏ IAM User, IAM Policy and IAM Role

Section 7: **Databases**

❏ Introduction to Relational Databases

❏ Creating our first database structure in MySQL

❏ Getting started with DynamoDB

❏ Know about ElastiCache, Redshift

Section 8: **Decoupling Applications**

❏ Amazon SQS

❏ Amazon SNS

❏ Amazon SES

❏ Kinesis Overview

Section 9: **Domain Name System**

- ❏ Introduction to DNS
- ❏ Understanding DNS Records
- ❏ Introduction to Route53
- ❏ Register a Domain using Route 53
- ❏ Manage DNS Hosts

Section 10: **AWS CloudFront**

- ❏ Introduction to CloudFront
- ❏ CloudFront with S3
- ❏ CloudFront Advanced Concepts

Section 11: **AWS ECS**

- ❏ Getting Started with Containerization
- ❏ ECS Services and Tasks
- ❏ Load Balancing in ECS
- ❏ ECS Scaling

Section 12: **AWS Storage Extras**

- ❏ AWS Snowball
- ❏ Storage Gateways

❏ Hands on API Gateways

Section 13: Serverless Computing

❏ Serverless Introduction

❏ Lambda

❏ Setting up Server Auto Start with a Lambda Function

❏ Elastic Beanstalk

❏ Host a Sample PHP website using Elastic Beanstalk

Section 14: AWS CLI and SDK

❏ Getting Started with AWS CLI

❏ AWS CLI setup on EC2 instances

❏ Connect EC2 instance with other AWS services like S3 or SNS or SES

Section 15: AWS Encryptions

❏ AWS Security

❏ KMS Overview

❏ SSM Parameter Store

❏ CouldHSM

Section 16: Migration Service and Disaster Recovery

❏ Database Migration Services

❏ DataSync Overview

❏ AWS Backups

Section 17: **Monitoring**

❏ Understanding CloudWatch

❏ Setup Alarms for Matrix changes

❏ Auditing AWS environment with CloudTrail

❏ Schedule Event Rules using Target based services

Section 18: **Other Services**

❏ AWS Key Management Service

❏ Systems Manager Parameter Store

Contact Us

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