

AWS certified Solutions Architect Syllabus

(Total-35 Hours)

1. Introduction to Cloud Computing. (1:30 Hour)

- a) What is Cloud Computing?
- b) Advantages of using Cloud Computing over traditional Data Centres.
- c) Types of Cloud Computing.
- d) Types of cloud computing deployments model.
- e) Introduction to AWS.
- f) Creating a free tier account with AWS.

2. Amazon Web Services (AWS) Identity & Access Management (IAM) (1:30 Hour)

- a) What is IAM?
- b) AWS User.
- c) AWS group.
- d) AWS roles and
- e) AWS policies.
- f) Securing your AWS account with MFA (Multi Factor Authentication).
- g) Creating a billing Alarm using CloudWatch.

3. AWS S3 (6 Hours)

- a) Simple Storage Service (S3).
- b) S3 Storage Tiers.
- c) Creating Buckets and Objects in S3.
- d) Working with Versioning.
- e) Working with S3 cross region replication.
- f) S3 object Life Cycle Management.
- g) CloudFront CDN Overview and creation.
- h) S3 Security and Encryption.
- i) Storage Gateway.
- j) SnowBall.
- k) S3 Transfer Acceleration.
- l) Creating your static website on S3.

4. Elastic Compute Cloud (EC2) (8 Hours)

- a) Introduction to EC2.
- b) Create and Launch your First Server in cloud.

- c) How to use Putty.
- d) Security Groups Basics and how to use them.
- e) What is EBS volumes?
- f) Upgrading EBS volumes types.
- g) How to encrypt root device.
- h) AWS AMI's? EBS root volume vs Instance Store Volumes.
- i) Creating a Load Balancers and configuring Health Checks..
- j) Creating Autoscaling group.
- k) CloudWatch EC2.
- l) AWS Command line in EC2.
- m) Using IAM Roles with EC2.
- n) S3 CLI.
- o) Using Bootstrap Scripts.
- p) EC2 Instance Metadata.
- q) EC2 Placement Groups.
- r) Elastic File System Labs.

5. Route 53: DNS Service from AWS. (4 Hours)

- a) DNS 101.
- b) Route 53 registering a domain.
- c) Routing policies available in AWS Route 53.
- d) Simple Routing Policy Lab.
- e) Weighted Routing Policies Lab.
- f) Latency Routing Policies Lab.
- g) Failover Routing Policies Lab.
- h) Geolocation Routing Policies Lab.
- i) Multivalue Answer Routing.

6. AWS Databases. (4 Hours)

- a) Databases 101.
- b) Create your first RDS instance.
- c) RDS backup, Multi-AZ & Read Replicas.
- d) DynamoDB
- e) Redshift.
- f) ElastiCache.
- g) Aurora.

7. Virtual Private Cloud (Amazon VPC). (5 Hours)

- a) What is VPC?

- b) Creating your own infrastructure using VPC.
- c) Internet Gateway, Rout Tables, Network Access Control List. Security Groups. Subnet.
- d) Bastion Hosts.
- e) VPC Netting: NAT instances vs NAT Gateway.
- f) VPC End Points.
- g) VPC Flow Logs for Monitoring your own Datacenter.
- h) VPC mini project: Proof of Concept.

8. AWS Services (4 Hours)

- a) AWS Lambda
- b) AWS cloud Formation
- c) AWS elastic Beanstalk.
- d) AWS Cloud Watch.
- e) AWS SQS, SNS, SWF
- f) Elastic Transcoder.
- g) AWS Kinesis.
- h) API Gateway.
- i) Containers on AWS.