

## AWS Certified Solution Architect Associate Curriculum

Duration: - 30-45Days

### **Trainer Details: Santhosh**

#### **Overall IT experiences of 9 years.**

In this course we will start with a broad overview of the AWS platform and then deep dive into the individual elements of the AWS platform. You will explore Route, EC2, S3, Cloud Front, Autoscaling, Load Balancing, VPC etc.

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#### Course Content:

##### Chapter 1: Introduction to AWS

This chapter provides an introduction to the AWS Cloud computing platform. It discusses the advantages of cloud computing and the fundamentals of AWS. It provides an overview of the AWS Cloud services that are fundamentally important for the exam.

- What is Cloud Computing?
- Types of Cloud.
- Cloud Service Models.
- Advantages of Cloud Computing.
- Disadvantages of Cloud Computing.
- Introduction to AWS.
- AWS Fundamentals.
- AWS Cloud Computing Platform.
- Accessing Cloud Computing Platform.

##### Chapter 2: AWS Basics Steps to Follow

This chapter provides you with a basic steps to follow before beginning to AWS Cloud Platform. This chapter describes you prerequisites to create AWS Account, Steps to Login to AWS Account and Steps to Create IAM User.

- Prerequisite to Create AWS Account.
- Steps to Create AWS Account.
- Steps to Login to AWS Account.
- Steps to Create a User using AWS IAM.

### Chapter 3: Amazon Simple Storage Service (Amazon S3)

This chapter provides you with a basic understanding of the core object storage services available on AWS: Amazon Simple Storage Service (Amazon S3). These services are used to store objects on AWS.

- Introduction.
- Object store versus Traditional Block and File Storage.
- Amazon S3 Basics.
- Advantages of S3 Bucket.
- Amazon S3 Advanced Features.
- Amazon S3 Limits.
- Amazon S3 Pricing.
- Amazon Glacier.
- Hosting website on S3 Bucket and Accessing from Internet.
- Demo.

### Chapter 4: Amazon Glacier

This chapter describes Amazon Glacier storage service. Amazon Glacier is an extremely low-cost storage service that provides durable storage with security features for data archiving and backup. In this Chapter you will Learn Glacier Data Models and Operation of Glacier.

- Introduction to AWS Glacier.
- Vault & Archive Glacier Data Model.
- Job & Notification Configuration Glacier Data Model.
- Supported Operation in Amazon Glacier.
- Demonstration of Glacier using AWS CLI.
- AWS Glacier Console.

### Chapter 5: Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Elastic Block Store (Amazon EBS)

In this chapter, you will learn how Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Elastic Block Store (Amazon EBS) provide the basic elements of compute and block-level storage to run your workloads on AWS.

- Introduction to Amazon EC2.
- Features of Amazon EC2.
- Basic Concepts of EC2.
- Instances and AMIs
- Regions and Availability Zones.
- Instance Types.
- Tags.

- Networking and Security.
- Amazon EC2 Advance Features.
- Amazon Elastic Block Store.
- Amazon EC2 Limitation.
- Amazon EC2 Pricing.
- Demo

## Chapter 6: Amazon Virtual Private Cloud (Amazon VPC)

This chapter describes Amazon Virtual Private Cloud (Amazon VPC), which is a custom-defined virtual network within AWS. You will learn how to design secure architectures using Amazon VPC to provision your own logically isolated section of AWS.

- Overview of Amazon VPC.
- Introduction to Amazon VPC.
- Introduction to Subnet.
- Basic Concepts of VPC.
- Amazon VPC Advance Features.
- Working with VPC & Subnets.
- Amazon VPC Networking Concepts.
- Network Interface.
- Route Tables.
- Internet Gateways.
- NAT (Network Address Translation).
- VPN Connections.
- Amazon VPC Limitation.
- Amazon VPC Pricing.
- Demo and Scenarios.

## Chapter 7: Elastic Load Balancing.

In this chapter, you will learn how Elastic Load Balancing automatically distributes your incoming application traffic across multiple targets, such as EC2 instances.

- Overview of Amazon ELB.
- Introduction to Amazon ELB.
- How Load Balancer work?
- Concept of Elastic Load Balancer.
- Features of Elastic Load Balancing.
- Types of Elastic Load Balancer.
- Listeners.
- Targets.
- Limits.
- Demo of Elastic Load Balancers.

## Chapter 8: Auto Scaling.

Auto Scaling is a web service designed to launch or terminate Amazon EC2 instances automatically based on user-defined policies, schedules, and health checks. Application Auto Scaling automatically scales supported AWS services with an experience similar to Auto Scaling for EC2 resources.

- Overview of AWS Auto Scaling.
- Introduction to AWS Auto Scaling.
- What Is Auto Scaling?
- Concept of Auto Scaling.
- Benefits of Auto Scaling.
- Auto Scaling Lifecycle.
- Launch Configurations.
- Auto Scaling Groups.
- Scaling Your Group.
- Auto Scaling Limits.
- Demo of Auto Scaling.

## Chapter 9: AWS IAM.

This chapter covers AWS Identity and Access Management (IAM), which is used to secure transactions with the AWS resources in your AWS account. With IAM, you can centrally manage users, security credentials such as access keys, and permissions that control which AWS resources users and applications can access.

- Overview of AWS IAM.
- Introduction to AWS IAM.
- What Is IAM?
- Security Feature outside of IAM.
- Permission and Policies.
- Create an IAM Admin User and Group.
- IAM Console and Sign-in Page.
- Users.
- Groups.
- Roles.
- Best Practices and Use Cases.

## Chapter 10: AWS Cloud Watch.

This chapter covers Amazon CloudWatch, which provides a reliable, scalable, and flexible monitoring solution that you can start using within minutes. You no longer need to set up, manage, and scale your own monitoring systems and infrastructure.

- Overview of AWS CloudWatch.
- Introduction to AWS CloudWatch.
- What Is AWS CloudWatch?
- How Amazon CloudWatch works?
- Concept of CloudWatch.
- Getting Started with CloudWatch.
- Using Dashboard.
- Using Metrics.
- Metrics and Dimensions.
- Amazon CloudWatch Limits.
- Demo of Cloud Watch.