



## Amazon Web Service training

### What you will learn in this course

- ✚ Understand what is Cloud computing and AWS.
- ✚ Building applications on AWS using resources like Amazon EC2, Amazon RDS and Amazon S3 etc.
- ✚ Creating application stacks using Amazon Cloud Formation.
- ✚ Configuring AWS as virtual datacenter and enable connectivity using Amazon VPC and VPN.
- ✚ Protecting unauthorized access to AWS resources using Security groups and network ACLs.

**Security:** Identity Access Management (IAM)

**Storage:** S3, Glacier, Snowball, Storage Gateway, S3 Transfer Acceleration

**Compute:** EC2, Lambda, Elastic Beanstalk

**Database:** RDS, DynamoDB, ElastiCache, Redshift

**Networking:** VPC, CloudFront, Route 53, API Gateway

**Application Services:** Simple Notification Service (SNS), Simple Queue Service (SQS), Elastic Transcoder, Kinesis ... and more

### Setup Requirements

- Need to set up an AWS free tier Account.
- (Most of the Services come with AWS free tier eligibility).
- **Windows:** Putty, Putty KeyGen and Web Browser with Internet connectivity.
- **Linux/Mac :** Default Terminal.



# Amazon AWS Course Outline

## CHAPTER 1

### **Introduction to the Course**

Introduction to cloud computing  
Different vendors of Cloud computing  
Importance of cloud computing  
Advantages and disadvantages of cloud computing

### **Cloud deployment methods**

Private cloud  
Public cloud  
Community cloud

### **Cloud Service / Delivery models**

Software as a service (SaaS)  
Platform as a Service (PaaS)  
Infrastructure as a Service (IaaS)  
What You'll Need Getting Started

## CHAPTER 2

### **Brief History of AWS**

The History So Far  
Setting up A Free Tier Account

## CHAPTER 3

### **Identity and Access Management (IAM)**

AWS Global Infrastructure  
IAM Overview  
Creation of user accounts  
Setting up multi factor Authentication (MFA)  
Roles in IAM  
Groups in IAM  
Delegation of permissions for users  
Creation of custom policies for delegation



IAM Lab

Create a Billing Alarm

IAM Summary

## **CHAPTER 4**

### **AWS Object Storage and CDN - S3, Glacier and CloudFront**

S3 Overview

Creating and deleting buckets

Adding objects to buckets

Getting objects

Deleting objects

S3 Version Control

Cross Region Replication

S3 Life Cycle Management & Glacier

CloudFront CDN Overview

Create a CloudFront CDN

S3 Security and Encryption

Storage Gateway

Snowball

S3 Transfer Acceleration

Create A Static Website Using S3

Summary

## **CHAPTER 5**

### **EC2 - The Backbone of AWS**

EC2 Overview

Launch an EC2 Instance

How to use Putty (Windows Users Only)

Assigning Elastic IPs

Security Groups Basics

Upgrading EBS Volume Types

Encrypt Root Device Volume and Create an AMI

AMIs - EBS Root Device Volumes vs Instance Store



Load Balancers and Health Checks

Cloud Watch EC2

The AWS Command Line and EC2

Using IAM Roles with EC2

S3 CLI & Regions

Using Bootstrap Scripts

EC2 Instance Metadata

Autoscaling Groups

EC2 Placement Groups

Elastic File System

Lambda - Concepts

Build a Serverless Webpage

EC2 Summary

## **CHAPTER 6**

### **Route 53(DNS)**

DNS Overview

Register a Domain Name

Setup Our EC2 Instances

Simple Routing Policy

Weighted Routing Policy

Latency Routing Policy

Failover Routing Policy

Geolocation Routing Policy

DNS Exam Tips

## **CHAPTER 7**

### **Databases on AWS**

Databases

Create our first RDS Instance

RDS - Back Ups, Multi-AZ & Read Replicas

DynamoDB



RedShift

Elasticache

Aurora

Databases Summary

## **CHAPTER 8**

### **Virtual Private Cloud (VPC)**

Introduction and Overview of VPC

Build Your Own Custom VPC

Network Address Translation (NAT)

Access Control Lists (ACLs)

Custom VPCs and ELBs

VPC Flow Logs

NATs vs Bastions

VPC End Points

VPC Clean Up

Summary

## **CHAPTER 9**

### **Application Services**

Simple Queue Service (SQS)

Simple Workflow Service (SWF)

Simple Notification Services (SNS)

Elastic Transcoder

API Gateway

Kinesis

Application Services Summary



## **CHAPTER 10**

### **Real time practical - Creating a fault tolerant Word Press Site**

Getting Setup

Setting up EC2

Adding Resilience and CloudFront

Setting up Our AMIs

AutoScaling & Load Testing

CloudFormation!

## **CHAPTER 11**

### **Preparing for the Exam - White Paper Reviews**

