

# **AWS (AMAZON WEB SERVICES)**

## **Introduction to Cloud Computing**

- What is Cloud Computing?
- Why Cloud?
- Types of Cloud Deployment Models
- Types of Cloud Services
- IaaS Vs. SaaS Vs. PaaS
- Future of Cloud Technologies
- Advantages and Disadvantages of Cloud
- Cloud Providers

## **Introduction to Amazon Web Services(AWS)**

- What is AWS?
- How to Subscribe for AWS account
- What is the AWS Free Usage Tier
- AWS Certification
- Introduction to the AWS managementConsole
- List of services given by AWS

## **Elastic Compute Cloud (EC2)**

- What is Amazon EC2?
- Features of Amazon EC2
- Managing the EC2 infrastructure
- EC2 Dashboard
- Pricing for Amazon EC2

## **AWS Regions and Availability Zones**

- Describing Regions
- Availability Zones, and Endpoints
- Managing instances in an Availability Zone

## **Amazon Machine Images (AMI)**

- ☐ Managing AMIs
- Working with Windows, Linux AMIs
- Shared and Paid AMI
- Making an AMI Public

## **EC2 Instances**

- Instance Type
- Instance life cycle
- Differences between reboot, stop, and terminate
- Building an EC2 windows and linux instances
- To install instance in public and private subnet
- Security via Key Pairs
- EC2 Class and VPC Security Groups
- Managing Elastic IP's
- Pricing model in EC2 instances
- EC2 with Amazon command line interface

## **Amazon Elastic Block Store (EBS)**

- Features of Amazon EBS
- Amazon EBS volumes
- Managing EBS volumes
- Increasing the volume size
- Amazon EBS snapshots

## **Load Balancing (ELB)**

- Creating a load balancer
- Internal and external load balancer
- Load balancing protocols
- Security groups for the load balancer
- Health check for the load balancer
- Cross-zone load balancing
- Connection Draining

## **Auto Scaling**

- What is auto scaling?
- Auto scaling components

## **Advantages of auto scaling**

- Creation of launch configuration
- Configuration of auto scaling policies
- Advantages of using auto scaling with ELB

## **Network & Security**

- Security Groups
- Elastic IPs
- Placement Groups
- Key Pairs
- Network Interfaces

## **Networking Services Amazon Virtual Private Cloud (VPC)**

- What is Amazon VPC?
- VPC Essentials
- Default and Non Default VPC
- VPC Networking and ACL
- Security Groups
- DNS and DHCP Options Sets
- VPC Peering and Endpoints
- Subnet Routing
- VPC Internet Gateway
- Elastic IP addresses and network interfaces
- VPC integration with many other AWS services
- Creating a NAT instance in a VPC
- Configuring a Web application in VPC
- Pricing for Amazon VPC

## **Amazon Route 53**

- Route 53 as your DNS service
- Using Traffic Flow
- Route 53 Health Checks
- Configuring DNS Failover
- Latency Based Routing
- Weighted Routing Policies
- Hosting web portal using Route53
- Bucket Policies

## **Security & Identity Services Identity Access Management (IAM)**

- IAM Features
- Getting Started With IAM
- Creation of user, groups, roles
- Managing & Writing policies
- Credential Report
- IAM Console and the Sign-in Page

## **Storage & Content Delivery Services Amazon S3**

- What is object Storage?
- Data as objects
- Lifecycles of S3
- Managing Buckets
- Accessing S3 storage via tools
- Creation of a static website using S3storage

## **Database Services Relational Database Service (RDS)**

- RDS Essentials
- Launching RDS instance
- Selecting the Engine
- Configuring the Database Engine
- Managing RDS Database
- Setting up automatic backups
- Authorizing access to the DB

## **Amazon Cloud Watch**

- Amazon CloudWatch Architecture
- List of services monitored by CloudWatch
- Collect and track metrics
- Monitoring memory and disk Metrics
- Monitoring logs, Graphs
- Set Alarms

## **Cloud Formation**

- Building AWS infrastructure as a code
- Design a template
- Create a Stack
- Create a Template from your ExistingResources
- Introduction to JSON

## **Application Services Amazon Simple Email Service (SES)**

- Simple email service overview
- Configuring Amazon email service
- Amazon SES and Deliverability
- Amazon SES Email-Sending Process
- Email format and Limits of SES
- Amazon Simple Queue Service (SQS)

- Simple Queue service overview
- SQS for background work task
- Creating a Queue
- Confirming the Queue exists
- Add a permission to the Queue

### **Amazon Simple Notification Service (SNS)**

- Simple Notification Service overview
- SNS architecture
- Publishers and subscribers
- Creation of a topic
- Subscribing to topic via Email
- Setting notification for EC2 instancechanges

### **Real-time Applications Deployments**

- Deploying Web Application

### **Interview Guide**

- Resume Preparation
- Frequently Asked Interview Questions
- Interview Tips & Tricks

