Course Content for AWS Cloud Training

Public cloud: Amazon Web Services-Essentials

Course Objectives:

- ❖ Recognize terminology and concepts as they relate to the AWS platform

- ❖ Navigate the AWS Management Console Understand the security measures AWS provides

- ❖ Differentiate AWS Storage options and create an Amazon Simple Storage Service (S3) bucket

- ❖ Recognize AWS Compute and Networking options and use Amazon Elastic Compute Cloud (EC2) and Amazon Elastic Block Storage (EBS)

- ❖ Identify Deployment and Management options

- ❖ Load balance and Auto-Scale with EC2

- ❖ Use EC2 APIs

- ❖ Debug AWS EC2 instance

Why Choose Apponix for AWS Cloud Training?

- Apponix has excellent qualified AWS Trainers
- 100% student satisfaction rate, we will continue that in future.
- 5000+ satisfied students overall till now.
- Excellent Lab facility for AWS Training
- There are no hard & fast rules for timings.
- All our trainers are min 7+ years of AWS cloud experience.

1: Introduction to AWS

- Navigate the AWS Management Console
- Recognise AWS Global Infrastructure
- Describe the security measures AWS provides
- Create an Amazon EC2 instance
- Remotely connecting to an EC2 instance
- Setting up Amazon Linux and Apache web server
- Browsing Amazon Machine Images (AMI)
- Specifying security groups and key pairs
- Creating new images off of running instances

2: AWS Storage

- Identify key AWS storage options
- Describe Amazon EBS
- Use Amazon EBS with Amazon EC2
- Working with Volumes and snapshots
- Transmitting data in/out of the Amazon cloud

3: Installing Software in your Amazon Instance

- Implementing a Web server in an Amazon Linux/Windows Instance
- Configure the firewall to access a Web server

4: Security in Public Cloud

- Security issues in Public Cloud
- Securing the Access : Creating a RSA Public/Private Key for VMs
- Creating a software firewall
- Configuring firewall rules
- Securing the access with an Elastic IPs
- Managing users with Identity Access Management (IAM)

5: Alternate access

- Using EC2 Command Line APIs [from Windows/Linux machines]

6: Load-balancing with EC2 and Auto Scaling

- Creating and using Load Balancers
- Distributing incoming traffic with elastic load balancing
- Dynamically adding and removing instances with Auto Scaling

7: CloudWatch to be seen along with Auto Scaling

- Overview of Monitoring and Setting Alarms
- Visualising utilization metrics with CloudWatch
- Setting alarms to send and receive notifications

8: Simple Notification Services [to be seen along with Auto Scaling

- Using SNS to send Notifications

9: Amazon S3 Basics

- Creating Buckets
- Creating Folders
- Uploading Objects
- Making Objects Public
- Creating Buckets
- Securing Bucket/Object access
- Configuring a Bucket as Static Web Page
- Controlling Life Cycle of a Bucket
- Accessing Amazon Buckets from Windows/Linux desktops/Servers

10: Virtual Private Cloud

- Create a VPC [VPC with a Single Public Subnet]
- Create and attach an Internet gateway

- Create an Amazon VPC subnet
- Set up routing in the VPC
- Set up a security group to control the inbound and outbound traffic
- Launch an instance into the subnet
- VPC console to allocate an Elastic IP address and assign it to the instance
- Amazon EC2 console to terminate your instance and the Amazon VPC console to delete your VPC

11: AWS-RDS

- Overview of AWS RDS
- Launching a MySQL Database in RDS
- Creating Backups/Snapshots and Read Only DBs
- Connecting to RDS-DB using local DB-Clients
- Terminating a DB instance

12: AWS-IAM

- Creating Groups and Defining access policy
- Creating Users
- Login to AWS account using new users

13: Installing Software in your Amazon Instance

- Implementing a Web server in an Amazon Linux/Windows Instance
- Configure the firewall to access a Web server

14: AWS-CloudFormation

- Introduction to Cloud Formation
- Launching instances in EC2 using Templates

15: AWS-CloudFront

- Concepts of AWS-CloudFront
- Host a Website with CloudFront

16: AWS-Route53

- Creating a Failover setup for Load Balancers running in different AWS regions [users need to have a registered Domain]
- Health Check a private website

17 : AWS-CloudTrial

- Using CloudTrial to trail the API Calls

18 : Hosting Applications with Elastic Beanstalk

- Improving application delivery with Platform as a Service (PaaS)
- Deploying scalable applications on the AWS cloud
- Selecting and launching an application environment (sample application in PHP and MySQL)

19 : DynamoDB

- Overview of AWS DynamoDB
- DynamoDB Tables and Naming Conventions
- Data Types in DynamoDB
- DynamoDB Capacity Units
- Configuring Alarms
- Tacking Backup and Restore

20 : Lambda Function

- Overview of AWS Lambda
- Creating a Lambda Function with Node.js
- Lambda Pricing & Uploading Code
- Connecting Lambda Functions to API Gateway Endpoints
- Accessing Lambda Logs
- Getting Started with Body Mapping Templates

21 : API Gateway

- Overview of API Gateway
- Create a REST API
- Create Resource
- Create HTTP Methods
- Deploy API
- Integrating with Lambda function

22 : Simple Queue Service

- Overview of SQS
- Create Standard queue
- Create FIFO queue
- With Timer or Delay to a Standard queue

- Content De-duplication
- Delete the queue

23 : Compute

- 2 and 3 tier web architecture running in EC2 (windows and Linux)
- Multiple Child application Running in EC2 (windows and Linux)
- Light sail implementation
- ECS and ECR launching Docker images
- Understanding of launching OnDemand Instances, Reserved, spot, Dedicated Hosts and Dedicated Instance

24 : AWS-Automation with Python Boto3 module

- Complete In Depth understanding and implantation AWS-Automation by using Boto3 Module
- Launching EC2 and Entire VPC creation by using Python code.
- Creation S3 Buckets by writing python boto3 module
- Creating IAM users and Roles and Polices by using Python boto3 module

25 : Security, Identity and Compliance Management

- Securing the web application by using the WAF
- AWS Inspector
- AWS security Manager (SSL/TLS Certificates)
- AWS Shield
- AWS Artifact
- AWS Key Management Service

26 : End user Computing, Organization setup and Resource Sharing with (SSO)

- Directory services (Launching Aws managed AD)
- SSO integration with AD users
- Work Email
- Work docks
- Work spaces
- Aws management SSO login

27 : AWS System Manager

- Run command

- Compliance
- Patch Manager

28 : AWS Cost Management

- AWS Cost Explorer
- AWS Budgets
- AWS Marketplace Subscriptions

29 : Customer Engagement

- Simple Email Service

30 : Developer Tools

- CodeCommit
- CodeBuild
- CodeDeploy
- CodePipeline