
AWS - Amazon Web Services - Developer

Duration: 6-7 Weeks

Prerequisites

- Basic Knowledge of Operation & Infrastructure

Basics for AWS

1. Linux Basics

- Intro to Linux
- Basic Commands
- Network Configuration
- Software Management
- User and Group management.

2. Networking Basics

- IP assignment.
- Dns(Domain name systems)
- Service Ports usage.

- Firewall.

- Troubleshooting network.

- Secure Copy and login.

3. Storage Basics

- Filesystem usage.
- Mount Options.
- Checking free space.
- Giving permissions.
- Increasing Filesystem space.

AWS: Basic and Advanced

1. Introduction to Cloud & AWS

- Defining cloud computing.
- Cloud computing Infrastructure.
- The requirements that need to be fulfilled to qualify as a cloud service.
- Cloud service and deployment models.
- Common misconceptions about cloud computing.
- Common cloud Implementations.
- Virtualization

2. Amazon Elastic Compute Cloud (EC2)

- Defining EC2 Instances
- Different type of Images (AMI)
- Storage for Instances. Volumes (EBS)
- Security Groups
- Creating Ec2 Instances
- Key Pairs
- Different type of volumes/ persistent storage.
- Maximizing output out of volumes.
- Moving data around between instances.
- Understanding billing aspects of volumes.

3. Identity And Access Management Techniques (IAM)

- Creating roles .
- Distribution of access control.
- Giving access to users.
- Restricting different services for users.

4. Elastic Block Storage and S3

- Creating a S3 Bucket.

- Putting and retrieving data out of S3 bucket.

- Giving privileges into Our S3 bucket.

- lifecycle, versioning

- S3 RRS, S3 IA and Glacier

- CORS

5. SNS,SWF and SQS

- Working with simple notification system.
- Creating a notification subscription.
- Understanding queuing service.
- Sending and retrieving a message to queue.
- SNS and SQS real-time use case
- Introduction to SWF and its usage

6. Networking: Setting up VPC and NAT

- Subnets, ACLs, Routing rules.
- Security groups at instance.
- Creating a notification subscription.
- Hands on -Creating a VPC.
- Securing your network.

7. Amazon Auto Scaling Groups

- Launch configuration .
- Auto scaling policies.
- Hands On- configuration of auto-scaling rules.
- Automatically scale Ec2 instances.

8. Elastic IPs

- Creation and assigning Elastic Ip.
 - Freeing Up and reassigning Ip's.
 - Understanding cost associated with Ip's.
-

9. Orchestrating Aws Infra

- Configuring Aws Cli.
- Using Aws Cli to create ec2 instances and other resources.
- Using CloudFormation to orchestrate aws Infra.
- Introduction to other orchestration tools.

10. Application Services

- R53 and DNS
- Domain registration
- Types of routing policies
- Routing policies in detail
- Cloud Formation
- Elastic Beanstalk

11. DynamoDB

- Creating dynamoDb tables
- Indexes
- Dynamodb
- Provisioned throughput
- Important aspects of dynamoDB

12. Project: Work

- Hands-on workshop/Project: Deploying a 3-tier web-application using AWS services
- Bonus: Brief introduction to Vagrant and Chef
- Hands-on workshop/Project: Automated deployment of Test/Dev environments using Vagrant, Chef and AWS

13. Brief introduction to Hadoop and Big-Data

- AWS Service Overview – Elastic Mapreduce (EMR)
- Q&A session for all previously covered topics, preparation tips for AWS SA-Developer Level Certification exam