Module 1:-- Introduction and getting started with AWS

In this module, you can learn about the different projects and services of AWS. You can also understand the Global Infrastructure of AWS. Different types of EC2 instances and instance purchasing options.

- Introduction to Cloud Computing
- Different AWS projects and services
- setting up of the AWS account
- AWS Global Infrastructure and its benefits
- EC2 instances
- Different EC2 Instance purchasing options and placement groups

Practical's to be covered: Setting up an AWS account.

Module 2:--Amazon EC2

This module talks about the introduction to the compute offering from AWS called EC2. We will cover different Amazon AMIs. This also includes a demo on launching an AWS EC2 instance, connecting with an instance and hosting a website on the AWS EC2 instance.

- Amazon AMI
- Demo on AMI creation, security groups, key pairs

Practical's to be covered: Launching a free tier Ubuntu Instance

Module 3:--Simple Storage Services and AWS CLI

Learning Objectives - In this module, you can learn about the different storage services offered by AWS, and how they can be used to transfer data from one place to another.

- Traditional storage tiers
- Disadvantages of traditional storage over cloud
- AWS storage options: EBS, S3 & Glacier
- AWS Connecting Storage: Snowball & Storage Gateway

Practical's to be covered: Restoring an Amazon EBS Volume from a Snapshot, hosting a website on Amazon S3.

Module 4:--Virtual Private Cloud & Direct Connect

This module deals with the introduction to Amazon Virtual Private Cloud. It will help you understand how you can make public and private subnets with AWS VPC, along with a demo on creating VPC. This module will also provide an overview of AWS Direct Connect.

- Subnet and Subnet Mask
- VPC and its benefits
- Default and Non-default VPC

- Components of VPC
- Direct Connect

Practical's to be covered: Building a non-default VPC and launching an instance in it.

Module 5:--Database Services

In this module, you can learn about the different database services offered by AWS to deal with structured and unstructured data.

- Different database services of AWS: Amazon RDS, DynamoBD, RedShift, ElastiCache

Practical's to be covered: Creating a Mysql DB Instance

Module 6:--Elastic Load Balancing & Auto Scaling

This module will help you learn the concepts of 'Scaling' and 'Load distribution techniques' in AWS. This module also includes a demo around load distribution and scaling your resources horizontally based on time or activity.

- Components and types of load balancing
- Auto scaling and its benefits
- the lifecycle of auto scaling
- Components and policies of auto scaling

Practical's to be covered: Working with Elastic Load Balancer, maintaining high availability with Auto Scaling.

Module 7:--Route 53 & Management Tools

This module deals with Route 53 and the different management tools which covers monitoring AWS resources, setting up alerts and notifications for AWS resources and AWS usage billing with AWS CloudWatch.

- Overview of Route 53
- Management tools: CloudTrail, CloudWatch, CloudFormation, and Trusted Advisor

Practical's to be covered: Routing Traffic to AWS Resources through Route 53, Enabling CloudTrail, Log Delivery to a S3 Bucket, setting up a billing alert, creating Stack and deploying it in CloudFormation.

Module 8:--Application Services, AWS Lambda & Elastic Beanstalk

In this module, you will come to know how lambda is required.

- AWS Application Services: SQS, SNS, SES
- AWS Compute Services: Lambda and Elastic Beanstalk

Practical's to be covered: Sending an Email through SES, running an application through Beanstalk and Copy an S3 object through Lambda.

Module 9:--Security & Identity Services

Through this module you will learn how to achieve distribution of access control with AWS using IAM.

- Benefits, features and components of OpsWorks
- Benefits of Chef, Cookbook, Recipes
- OpsWorks lifecycle events
- Security and identity services
- IAM and KMS

Practical's to be covered: Creating an OpsWorks stack and deploy an app in the stack, creating an IAM user in AWS account, Encrypt data stored in a S3 bucket using an encryption key.

Module 10: --Hosting a Website on Amazon Web Services

- Configure a Virtual Private Cloud (VPC)
- Create an Application Server within your VPC
- Create a Database Server within your VPC
- Deploy Your App
- Associate a Domain Name with your website