

## Outline

This course is designed to help you develop the skills you need to begin your journey with AWS Cloud.

You will learn the terminology, latest trends, and best practices of the field—and become industry-ready to help you qualify for a position as a high-quality AWS professional.

You will not only learn how cloud computing is redefining the rules of architecting IT Infrastructure, but also how to design, plan, and scale your AWS Cloud implementation with best practices recommended by Amazon.

## Course Outline

At the completion of this course, attendees will be able to;

- Build and manage applications in AWS
- Formulate solution plans and provide guidance on architectural best practices
- Design and deploy scalable, highly available, and fault tolerant systems on AWS
- Identify the lift and shift of an existing on-premises application to AWS
- Decipher the ingress and egress of data to and from AWS
- Select the appropriate AWS service based on data, compute, database, or security requirements
- Identify appropriate use of AWS architectural best practices
- Estimate AWS costs and identifying cost control mechanisms

### Who should go for this course?

- who want to pursue a career in AWS cloud computing

### What are Pre-Requisites for the course?

Basic understanding of servers

Basic understanding of IP networks

### How will I do practicals in Online Training?

You need to register on AWS portal by providing the Credit card details and use free tier options.

Course Outline detailed

## Duration

**1 Session, 1.5 Hours**

1. Introduction to Cloud Computing (30- 45 Minutes)
  - Why Cloud computing?
  - Benefits of Cloud computing
  
2. Introduction to AWS((30- 45 Minutes))
  - Setting up of AWS account
  - AWS free tier- Limits and usages
  - Introduction to AWS Management Console
  
3. Elastic compute cloud Essentials (30- 60 Minutes)
  - Regions and availability zones
  - Amazon Machine Images
  - Pricing Model in EC2 Instances
  - Deciding between on-demand instances, spot instances, reserved instances, scheduled instances& dedicated Hosts.
  - EC2 Reserved instances Market Place
  
4. EC2 Instances(60 – 90 Minutes)
  - Building EC2 windows & Linux Instances
  - Working with Security Groups
  - Assigning Elastic IP's

- Creating your own AMI
- Placement Groups

## 5. Elastic Block Store (EBS) (60 – 90 Minutes)

- Creating and deleting Volumes
- Attaching and detaching volumes and increasing the volume size
- Mounting and un-mounting the attached volume
- Creating snapshots

## 6. Elastic Load Balancer (60 – 90 Minutes)

- Creating a Load Balancer
- Internal and External Load Balancer
- Security groups for the load Balancer
- Configure health check for the Load Balancer
- Adding multiple instance for the Load Balancer
- Cross zone Load Balancing
- Connection Draining

## 7. Auto Scaling(30-45 Minutes)

- What is Auto Scaling
- Auto Scaling components
- Creation of Launch Configuration
- Configuration of Auto scaling policies based on the Load on EC2 Instance
- Advantages of Auto Scaling with Elastic Load Balancer (ELB)

## 8. Simple Storage Service (S3) (60 – 90 Minutes)

- Creating and deleting buckets
- Adding objects into buckets
- Getting objects and deleting objects
- Creation of Static website using S3 Storage
- Working with permissions of S3

- Life-cycles in S3

## 9. Glacier Storage (30-45 Minutes)

- Creating Vaults
- Accessing the Glacier Vault using tools
- Using Glacier for backups
- Retrieval period

## 10 . Identity and Access Management(30-45 Minutes)

- Creation of User accounts in AWS
- Setting up Multi factor Authentication
- Roles in IAM
- Groups in IAM
- Delegation of permission for users
- Creation of custom polices for delegation

## 12. Virtual Private Cloud (VPC) (60 – 90 Minutes)

- Creating a New VPC
- Subnets & Route Tables
- ACL & Security Groups
- Creation of Internet Gateway
- Connecting to instances in the gateway
- VPN & Direct Connect

## 13 . Amazon Route53(30-45 Minutes)

- Hosted Zones
- Records
- Failover using Route53
- Algorithms

#### 14. Rational Database Service (RDS) (60 – 90 Minutes)

- Discussion on types of Databases available in AWS
- Creating Database Engine
- Configuring Database Engine
- Redshift
- Multi-AZ configuration
- Setting up automatic backup's

#### 15. Cloud Watch(30-45 Minutes)

- Monitoring the AWS Service Health Dashboard
- Debugging Cloud related issues
- Getting Statistics for specific EC2 Instance
- Metrics for other AWS services and related namespaces
- Setting up notifications

#### 16. Simple Notification Service(30-45 Minutes)

- Creation of topic
- Subscribing to topic via email
- Setting notification for EC2 instance changes

#### 17. Simple Queue Service(30-45 Minutes)

- Creation of Queue
- Sending messages to the queue
- Setting SNS to SQS
- Retrieving messages from SQS

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#### 18. Amazon Cloudfront

- CloudFront Essentials

## 19. Cloud Formation(30-45 Minutes)

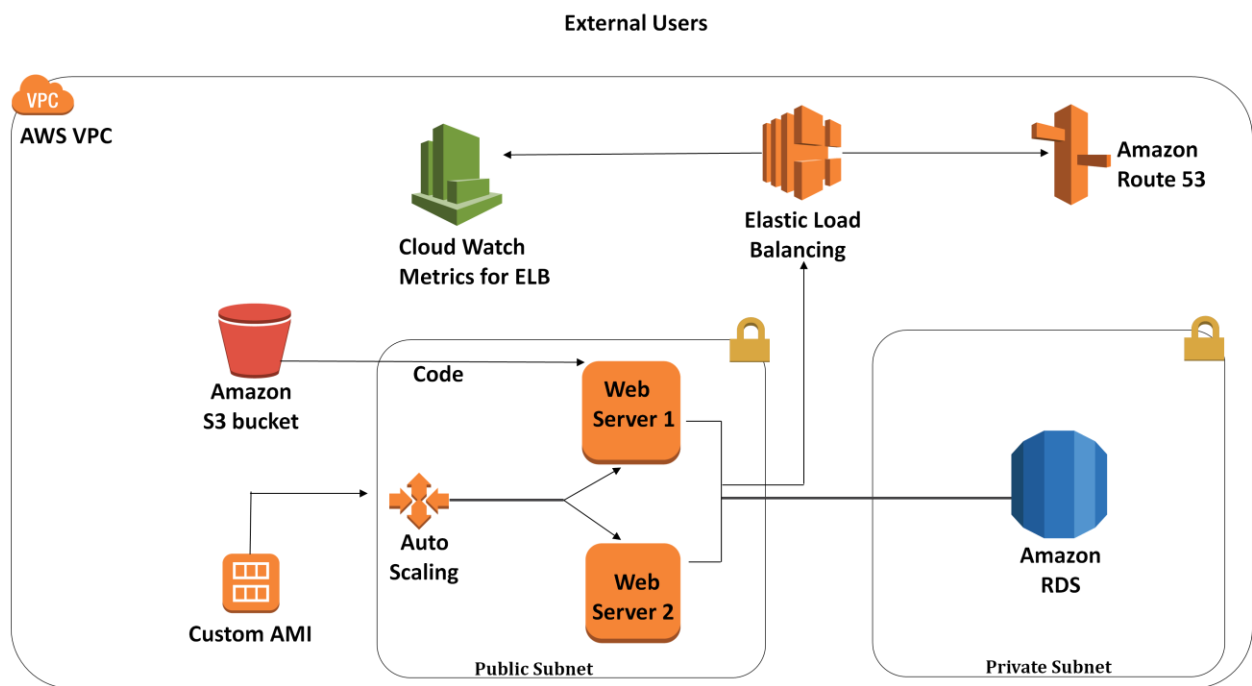
- Building AWS infrastructure as a code
- Utilization of sample templates
- Introduction to JSON

## 20. Amazon Elastic Beanstalk

- Elastic Beanstalk Essentials
- Getting Started With Elastic Beanstalk

### Project work:

Below project will be executed .which will be having major services integrated in single app. This helps to understand real-time application



## Certification

Participant need to peruse certificate as per AWS guidelines  
We will help you in guidance for preparation

