

Syllabus Amazon Web Services (AWS)

Course Duration: 6 Weekends

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Getting Started with Amazon Cloud:

- Introduction to cloud computing
- Models of cloud computing
- Setting up AWS accounts
- Evaluating Service Level Agreements (SLA)
- Various AWS Services
- AWS Management Console
- The AWS CLI - using credentials
- The AWS CLI- using roles
- AWS Global Infrastructure

Identity Access Management:

- Introduction to IAM
- IAM users and their access
- IAM roles and their permission
- Active Directory Federation
- Web Identity Federation
- IAM Best Practices
- Assignment
Configuring IAM users, groups and policies, AWS CLI/SDK access to manage services using Credentials and Roles lab

Virtual Private Cloud (VPC) & Direct Connect:

- VPC Overview
- VPC & its benefits
- VPC Security
- Default & non-default VPC
- VPC NAT
- VPC ACL
- NAT vs Bastion host
- Creating Bastion Host
- Direct Connect Overview
- Building your custom VPC
- Assignment
Building your custom VPC, Cleaning VPC, Defining ACL rules, Configuring Bastion Host, Cross Account access

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Amazon EC2:

- EC2 Overview
- Amazon Machine Images (AMI)
- AMI creation
- Security groups
- Key pairs
- Assigning elastic IP address
- Elastic IP v/s Public IP
- Bootstrap Scripts
- Overview of Amazon EBS
- EBS Volume intro
- EBS vs Instance Store
- Upgrading EBS volume
- Management Tools
- CloudTrail
- CloudWatch
- CloudFormation
- Trusted Advisor
- Assignment

Creating EC2, Various login ways from different OS, putty and putty keygen use, Assigning EIP, AMI assignment, Creating and restoring snapshot, snapshot to AMI, EC2 Bootstrapping, CloudFormation & CloudWatch.

Amazon Simple Storage Service (S3):

- Introduction to S3
- Creating an S3 bucket
- S3 Version Control
- S3 Lifecycle Management & Glacier
- S3 Uploading & Downloading
- S3 durability & redundancy
- Cloud front overview
- Create a CDN
- Security & Encryption
- Storage Gateway
- Import & Export using Snowball
- Cross region replication
- Static website using S3
- Assignment –

Creating S3 bucket, S3 ACL, S3 permissions, hosting static website on S3, Cross region replication assignment, S3 lifecycle assignment

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Elastic Load Balancing and Auto Scaling:

- Components and types of load balancing
- Auto scaling and its benefits
- Life cycle of auto scaling
- Components and policies of auto scaling
- Assignment

Configure Load Balancer, Auto scaling as per utilization in different situations

Route 53:

- Route53 Overview
- Creating Zones
- Understanding Routing Policies
- Simple routing policy
- Failover routing policy
- Geolocation routing policy
- Latency routing policy
- Multivalued answer routing policy
- Weighted routing policy
- Assignment

Components of Hosted Zones, ELB name configuration, Routing Policy

Database Services:

- Database overview
- Amazon Relational Database Service (RDS)
- AMI databases
- Amazon Redshift
- DynamoDB
- Amazon ElastiCache
- AWS Database Migration Service (DMS)
- Amazon Aurora
- Assignment

Creating RDS instance, DB backups, RDS Read Replica

Elastic Beanstalk and Lambda:

- Managing applications using Beanstalk
- Copy S3 object through Lambda
- Assignment

Deploy & scale a stack using Elastic Beanstalk

Amazon Application Services Overview:

- Simple Email Service
- Simple Queue Service
- Simple Notification Service
- Amazon SWF