

Amazon Web Services Syllabus (Total Duration-35hrs)

Module 1: Linux Fundamentals (Duration-2hrs)

- Overview of all basic commands
- Vim editor modes
- Filesystem hierarchy – Basic topics
- File and directory creation
- Grep
- Filter commands (head,tail,more,less)
- Creating users and groups
- Important files related
- Modifying,deleting users and groups
- Linux permissions
- Basic permissions overview
- Software management
- Yellowdog update modifier(yum)
- Yum commands
- Different runlevels
- Services and daemons

Module 2: AWS Solution Architect Certification Training

- Why Cloud ? Duration-1hr
- Why Cloud and What is Cloud Computing?
- Identify the features and benefits of cloud computing
- Different types of Cloud Computing deployment model

- Public Cloud, Private Cloud, Hybrid Cloud
- Virtualization – An essential in cloud
- Virtualization in Cloud model
- Different types of virtualization
- Hypervisor – Benefits
- Different types of services and its difference in Cloud computing
- IaaS, PaaS, SaaS
- Importance of scaling in cloud computing
- Different types of scaling and its applications
- Issues we overcome using cloud and applications
- Cost model that we use in cloud computing

Module 3: AWS – An overview (Duration-1hr)

- Describe the features of AWS
- The features of AWS marketplace
- Describe the features of Amazon Compute Services
- Describe the features of Amazon Storage Services
- Describe the features of Amazon Network Services
- Describe the features of Amazon Database services
- Describe about various services in AWS
- Global Infrastructure – Regions and Availability Zones
- Create a free tier account in AWS and onboarding
- Introduction AWS management console

Module 4: Understand Identity Access Management of AWS (Duration-2hrs)

- Protect your AWS by different authentication system
- Password policies set for users
- AWS User Account and Groups in detail
- Creating custom policies in AWS
- Introduction about Roles and its use
- Creating Roles and associating policies
- Creating programmatic access and management console access for users
- Associating policies to the user and groups

Module 5: EC2 Instance (Duration-4hrs)

- Describe AMI and AWS Marketplace templates
- Launch a basic EC2 instance
- Different types of Instances Reserved, On-demand, Spot, Dedicated
- Security groups and tags for EC2 instance
- Public key – Private key introduction and protecting EC2 with keys
- Attaching and detaching EBS volumes
- Launch an ec2 instance from an AMI
- Create custom AMI and working with different region
- Make use of amazon EBS volume and create snapshots
- Manage the configuration of your application
- Deploying a new instance from the created AMI

Module 6: Auto-scaling (Duration-2hrs)

- Get Started with Auto Scaling Using the Console
- Creating Launch configurations and make use of it for autoscaling groups
- Maintain a Fixed Number of Running EC2 Instances
- Dynamic Scaling
- The lifecycle of autoscaling
- Policies of autoscaling

Module 7: Load Balancing (Duration-2hrs)

- Introduction to Loadbalancer (ELB)
- Different types of Load balancer in AWS
- Application Load balancer
- Network Load balancer
- Classic Load balancer
- Migrating classic load balancer to new load balancer
- Components and types of load balancing

Module 8: EBS (Elastic Block Storage) (Duration-2hrs)

- Create EBS volumes
- Delete EBS Volumes
- Attach and detach EBS volumes with EC2 instance
- Creating and deleting snapshots

Module 9: Object Storage in Cloud (Duration-3hr)

- Understanding S3 durability and redundancy
- Introduction about S3 Buckets
- How S3 Uploading works and how to Download
- How to S3 Permissions
- How to implement S3 Object Versioning S3 Lifecycle Policies
- Storage Gateway
- Import Export
- S3 Transfer Acceleration
- Glacier storage

Module 10: CloudFront (Duration-1hr)

- Describing cloud front
- Creating a cloud front distribution
- Hosting a website of cloud front distribution
- Implementing global restrictions
- Configuring origins and behaviors

Module 11: Route53 (Duration-2hrs)

- Describe Hosted zones and Domain name understanding
- How to create hosted zones
- Hosting a website with custom domain name
- Understanding routing policies

Module 12: AWS Security Management (Duration-1hr)

- Describing Security Practices for Cloud Deployment
- AWS Shared Responsibilities and Securities
- Importance of Cloud Trail
- Describing Trust advisor

Module 13: Amazon Virtual Private Cloud (VPC) (Duration-5hrs)

- Introduction to Amazon Virtual Private Cloud (VPC).
- VPC Advantages and understanding IP addressing CIDR
- Default and Non-default VPC
- Different Components in VPC
- Describe, create, and manage Amazon Virtual Private Cloud
- Amazon VPC, Private Subnet, and Public Subnet
- AWS Networking, Security Groups, and Network ACLs
- Configuration and management of VPN connectivity
- Subnet and Subnet Mask

Module 14: Relational Database Service (RDS) (Duration-1hr)

- Introduction to RDS
- Different database services of AWS: Amazon RDS, DynamoDB, Redshift etc.
- Create MYSQL RDS Instance, Oracle RDS Instance, MS SQL RDS Instance
- Configuring the database
- Configuring backups
- Configuring the maintenance windows
- Connecting to the database

Module 15: DynamoDB (Duration-1hr)

- Creating a dynamo dB
- Adding data manually
- Learn about strong and eventual consistency
- Calculating Read write consistency
- Configuring alarms

Module 16: Monitoring Services (Duration-1hr)

- Knowledge on Cloud watch – A monitoring service
- Create and Configuring Monitoring services
- How to perform Setting thresholds and Configuring actions
- Creating a cloud watch alarm
- Getting statistics for ec2 instances
- Monitoring other AWS services
- Configuring Notifications
- Integrating cloud watch with Autoscaling

Module 17: Application Services – An Overview (Duration-1hr)

- What is SNS
- Creating a topic
- Create subscription
- Subscribed to the subscription
- SQS & SES
- Lambda and Elastic Beanstalk

Module 18: AWS Troubleshooting (Duration-1hr)

- Troubleshooting EC2 instance
- Troubleshooting using Cloud watch
- Troubleshooting using ELB
- Troubleshooting by using Cloud front

Module 19: AWS Architecture and Design (Duration-1hr)

- Backup and Disaster Recovery
- How to manage Disaster Recovery and Backups
- Best Practice for DR and Backups
- AWS High Availability Design

Module 20: DevOps Fundamentals (Duration-1hr)

- An understanding of DevOps and the modern DevOps toolsets
- The ability to automate all aspects of a modern code delivery and deployment pipeline using:
- Source code management tools – CVS, Git
- Build tools – Apache ant, Maven
- Test automation tools – JUnit
- Continuous Integration Tools – Jenkins, Team city
- Configuration management tools – Chef, Puppet, Ansible