**AWS Solution Architect Associate Training.**

**Introduction to Cloud Computing and AWS.**

* What is Cloud Computing?
* Cloud Service and Deployment Models
* How AWS is the leader in the cloud domain?
* Various cloud computing products offered by AWS
* Introduction to AWS S3, EC2, VPC, EBS, ELB, AMI
* AWS architecture and the AWS Management Console, virtualization in AWS (Xen hypervisor)
* What is Auto-scaling?
* AWS EC2 best practices and costs involved.

**EC-2(Elastic Computer)**

* Introduction to EC2
* Regions and Availability Zones(AZs)
* Pre-EC2, EC2 instance types
* Comparing Public IP and Elastic IP
* Demonstrating how to launch an AWS EC2 instance
* Introduction to AMIs, Creating and Copying an AMI
* Introduction to EBS
* EBS volume types
* EBS Snapshots
* Introduction to EFS
* Instance tenancy- Reserved and Spot instances
* Pricing and Design Patterns.

**Hands-on Exercise** –

* Launching an EC2 instance

**Load Balancing, Autoscaling, and DNS**

* Introduction to Elastic Load Balancer
* Types of ELB – Classic, Network, and Application
* Load balancer architecture
* Cross-zone load balancing
* Introduction to Auto Scaling, vertical and horizontal scaling, the lifecycle of Auto Scaling
* Components of Auto Scaling, scaling options and policy, instance termination
* Using load balancer with Auto Scaling
* Pre-Route 53 – How DNS works?
* Routing policy, Route 53 terminologies, Pricing

**Hands-on Exercise** –

* Creating a Classic ELB
* Creating an Application ELB
* Creating an Auto Scaling group

**VPC (Virtual Private Cloud)-**

* What is Amazon VPC?
* VPC as a networking layer for EC2
* IP address and CIDR notations
* Components of VPC – Network interfaces, route tables, internet gateway, NAT
* Security in VPC – Security groups and NACL, types of VPC, what is a subnet, VPC peering with scenarios, VPC endpoints, VPC pricing, and design patterns
* Hands-on Exercise –

**Storage - Simple Storage Service (S3)-**

* Introduction to AWS storage
* Pre-S3 – online cloud storage
* API, S3 consistency models
* Storage hierarchy, buckets in S3
* Objects in S3, metadata and storage classes, object versioning, object lifecycle management, cross-region replication, data encryption, connecting using VPC endpoint, S3 pricing.

**Databases and In-Memory DataStores**

* What is a database, types of databases, databases on AWS
* Introduction to Amazon RDS
* Multi-AZ deployments, features of RDS
* Read replicas in RDS, reserved DB instances
* RDS pricing and design patterns
* Hands-on Exercise –

**Management and Application Services**

* Introduction to CloudFormation
* CloudFormation components
* CloudFormation templates

**Access Management and Monitoring Services**

**Cloud migration.**

* What is Cloud migration?
* Why is migration important?
* Migration process in AWS, the 6 R’s migration strategy
* Virtual machine migration, migrating a local VM onto the AWS cloud

**Introduction of DevOps.**

* What is DevOps.
* Introduction to AWS DevOps.

**AWS Architect Interview Questions.**

**Interview Prepration**

**Placement Assistance**