**AWS Solutions Architect Associate Training**

**1.IntroductiontoCloudComputing**

* What is Cloud Computing
* Benefits of Cloud Computing
* Cloud Service Offerings-IaaS SaaS & PaaS
* Cloud deployment models
* Who should learn AWS
* Opportunities & Job Rolesinthe cloud
* AWS Suite
* Virtualization in AWS
* AWS vs Azure vs GCP

**2. Networking Concepts**

* IP Address
* VPC(Virtual Private Cloud)
* Subnets
* Route Table Configuration
* Internet Gateway
* Security Groups
* Private & public subnets
* Calculating CIDR Blocks
* Elastic IPs & public IPs
* NACLs
* VPC Peering Connection
* NAT Gateway
* VPC Endpoints

**3. Elastic Compute Cloud**

* EC2 Introduction
* Region and availability Zones
* EC2 Types
* Amazon Machine Images (AMI)
* Instance Resizing
* Instance Types Generations & Sizes
* Launching Linux and windows family servers
* Connecting Server using different tools
* AMI Creation and copy
* Launching public and private Servers
* Working with Security Groups and NACL

**4. EBS (ElasticBlockStore)**

* EBS Introduction
* Volume Types
* Creating Snapshots (Backups)
* Restoring from Snapshots
* Resizing Volumes
* Migrating Volumes to Another Region

**5. EFS**

* Introduction to EFS
* Creating EFS file system
* Mounting to multiple EC2 instances
* FSx Introduction
* Features of FSx

**6. Elastic Load Balancer (ELB)**

* ELB introduction
* Types of Load Balancers
* Application Load Balancer
* Classic Load Balancer
* Network Load Balancer
* Gateway Load Balancer
* Weighted Routing
* Sticky Session

**7. AutoScaling**

* AutoScaling Introduction
* Components of Autoscaling
* Launch Configuration
* Scaling Policies

**8. Auto Scaling with ELB**

* Application ELB
* Auto scaling
* Dynamic Registration

**9. IAM (Identity & Access Management)**

* User & Service management
* Managing Passwords Policies
* Key Management Service
* Managing Roles
* Activating Multi-Factor Authentication
* Identity Federation
* Managing Programmatic Access
* Writing Custom Policies
* AWS CLI
* AWS CLI Commands

**10.KMS (Key Management Service)**

* What is KMS
* Creating KMS key
* Managing KMS admin and usage permissions

**11.Databases**

* RDS Introduction
* Redshift for DataWarehousing
* NoSQL-DynamoDB
* Taking Automated Backups
* Migrating DB Across Regions
* Dynamo DB Basics
* Dynamo DB Creation and working

**12.DMS**

* Local Database Configuration
* RDS Configuration
* Endpoint URLS
* Migration Task
* Migrating DB Across Regions

**13. Route53 ( DNS & Domain Registration)**

* DNS Flow
* Fundamentals of Route53
* Registering A Domain
* Creating Hosted Zones
* Record Sets (A,AAAA,CNAME)

**14.CloudFront (ContentDeliveryNetwork)**

* CDN
* Gio restriction
* Configuration
* Routing policy (Simple weighted failover geo location & latency based)

**15. S3-SimpleStorageServices**

* Standard Storage
* Standard-Infrequently Accessed
* Reduced Redundancy
* Encrypting Objects
* Uploading deleting &downloading objects
* Versioning
* Lifecycle Management
* Cross Region Replica
* S3 Logging
* Static Website Hosting
* Cross-region Replication
* Configuring Events
* Glacier and Snowball

**16. Elastic Beanstalk**

* Elastic Beanstalk Creation
* Uploading Templates
* View History

**17. Monitoring Cloud Watch**

* Cloud Trail
* Basic & Detailed Monitoring
* Creating custom dashboards & widgets
* Setting up alerts
* Configuring events & rules
* Setting alarms
* f. EC2actions

**18. Simple Services**

* Simple Queue Service(SQS)
* Simple Email Service(SES)
* Simple Notification Service(SNS)

**19. Cloud Formation**

* Stacks Creation
* Stack Modifications
* Launching Services

**20. Python**

* Python Introduction
* Basics of python
* Variables ,Data types and Operators
* Python Functions

**21. Lambda Services**

* EC2 Launching
* Start and Stopping Servers
* S3 Triggering using Lambda Function