

AWS Solution Architect in Associate

The AWS Solution Architect Course is designed to help learners build expertise in designing, deploying, and managing scalable, highly available, and secure cloud solutions using Amazon Web Services (AWS). This course covers core AWS services, architecture best practices, networking, storage, security, monitoring, and real-world implementation scenarios required for cloud professionals and solution architects.

Who It's For

- Beginners who want to start a career in AWS Cloud Computing.
- System Administrators, Network Engineers, and IT Professionals looking to move into cloud technologies.
- DevOps Engineers who want to strengthen their AWS architecture knowledge.
- Developers interested in designing and deploying cloud-native applications.
- Professionals preparing for AWS Solution Architect certifications.

- Anyone interested in learning how enterprise applications are designed and managed on AWS.

What You'll Learn

- Fundamentals of Cloud Computing and AWS Global Infrastructure.
- Designing highly available, scalable, and cost-optimized cloud architectures.
- Deploying and managing EC2 instances and storage services.
- Working with EBS, EFS, and Amazon S3 storage solutions.
- Designing secure networks using Amazon VPC.
- Managing DNS using Route 53 and content delivery using CloudFront.
- Monitoring AWS resources using CloudWatch and CloudTrail.
- Implementing Load Balancers and Auto Scaling.
- Managing users, permissions, and security using IAM.
- Working with AWS databases and managed directory services.
- Building real-world cloud architectures using AWS best practices.

Benefits You'll Gain

- Gain hands-on experience with the most widely used cloud platform.
- Learn industry-standard architecture and deployment practices.
- Build practical skills through real-world AWS labs.
- Understand cloud security, networking, and monitoring concepts.
- Prepare for AWS Solution Architect certification exams.

- Develop skills required for Cloud Engineer, Solution Architect, and DevOps Engineer roles.
- Learn cost optimization and operational best practices used in enterprise environments.

Course Details

- **Duration:** 60 days (1 hour per day)
- **Mode:** Fully online – attend live
- **Start Date:** Flexible enrollment – begin anytime!

Topics that will be covered

AWS Cloud Computing Overview

- What is Cloud Computing
- History & a comparison with Client Server computing
- Advantages of Cloud Computing
- Why AWS is different from other vendors.
- Service Model of Cloud
- Deployment Model of Cloud
- Parts of Cloud
- AWS Fundamentals
- AWS Certifications
- AWS Regions and Services
- AWS Domain and Services
- Accessing AWS

AWS Elastic Compute Cloud in Compute

- Launching EC2 Instance and Connect
- Windows Instance
- Linux Instance

- EC2 Types
- EC2 Instance Pricing Options
- Types of AMIs to Launch EC2 Instance
- AWS Published
- AWS Marketplace
- Creating from existing Instance
- Upload Virtual Services
- AWS Service Limits and Support Plans
- Summary of EC2 Services

AWS Storage Service (Block Storage)

- Understanding Cloud Storage
- Advantages of Cloud Storage
- Understanding Terminologies of Cloud Storage
- Physical Hard Disk
- Virtual Hard Disk
- Volume
- HDD/SSD
- IOPS
- Disk I/O
- Storage Memory in GiB, MiB, KiB
- AWS Elastic Block Store
- EBS Volumes and Types
- EBS Snapshots
- AMIs using EBS Snapshots
- EBS Snapshot LifeCycle Manager
- Summary of Cloud and EBS Storage

AWS Storage Services (File and Object)

- AWS File Storage using Elastic File System
- Create and Mount File Share in EFS
- Object vs Block vs File Storage
- AWS Simple Storage Service (S3)

- S3 Basics and Benefits
- S3 Pricing
- S3 Bucket Permissions
- Block Public Settings
- ACL
- Policy
- CORS
- S3 Bucket Features
- Versioning
- Server and Object access Logging
- Static Web Hosting
- Object lock and Tags
- Event and Encryption
- S3 Storage Classes
- Standard
- Standard-IA
- One-Zone IA
- Reduced Redundancy
- S3 Bucket Management
- LifeCycle Policy
- Replication
- Metrics
- Analytics
- S3 Glacier and Vault

AWS Virtual Private Cloud

- Virtual Private Cloud Basics
- Subnets
- Route Tables
- Internet Gateway
- Security Groups and Network ACLs
- Nat Instance and Nat Gateways
- EIP and E-NICs
- Virtual Private Gateway,

- Customer Gateway
- Virtual Private Network
- VPC Peering
- AWS Direct Connect
-

AWS Route53

- Domain Name Service
- AWS Route53
- Domain Registration
- Hosted Zones
- Record Sets

AWS CloudFront

- Content Delivery Network
- AWS Edge Locations
- Distributions
- CloudFront

AWS Management Tools

- CloudWatch
- CloudWatch Metrics
- Monitor EC2 Instance
- Create Alarm on EC2
- Monitor VPC Flow Logs
- CloudWatch Logs
- CloudWatch Rules
- CloudWatch Billing Alerts
- Cost Management
- AWS Organizations
- CloudTrail
- CloudTrail Logs in S3 Bucket for all API Calls
- Simple Notification Service

- Cloud Formation

Load Balancing and Auto Scaling of EC2 Instance and Traffic

- Target Groups
- Load Balancer
- Load Balancers Types
 - Application
 - Network
- Load Balancer Configuration
- Service Health Check
- Launch Configurations
- Scaling Groups
- Scaling Policies
- Building Fault Tolerant and Highly Available Applications
- Summary of Auto Scaling and Load Balancers

AWS Command Line Interface, Identity and Access Management

- Install and Configure AWS CLI
- AWS CLI Reference
- Build AWS Resources using AWS CLI
- IAM Principles
- Creating Users
- Creating Groups
- Understanding Policies
- Understanding Console and Programmatic Access
- Access Keys and Secret Key
- IAM Roles
- Security and Policies

Database Services

- AWS RDS
- Read Replica
- Snapshots
- Restoring Snapshots
- Multi-AZ Deployment
- LAMP Stack
- Summary of Database services

Directory Services and Workspaces

- Authentication and Authorization
- Workgroup and Domain Model
- Windows Active Directory
- Directory Services
- Types of Directory Services in AWS
- Virtual Desktop Infrastructure
- AWS Workspaces