AWS Architect & DevOps

Course Duration: 32 Hours **Course Code: AWS-ARCH-DEVOPS**

1. Course Overview

The AWS Architect & DevOps course is designed to equip learners with the knowledge and hands-on skills required to design, deploy, and manage scalable applications on AWS. It bridges the gap between architecture and operations by covering key AWS services, DevOps practices, automation, CI/CD pipelines, and infrastructure as code. This course prepares professionals for real-world cloud challenges, ensuring efficient deployment and management of applications in the AWS environment.

2. What You'll Learn?

By the end of this course, participants will be able to:

- Understand AWS global infrastructure and core architectural principles.
- Design and deploy secure, scalable, and highly available systems on AWS.
- Implement DevOps practices using tools such as AWS CodePipeline, Jenkins, Docker, and Kubernetes.
- Automate infrastructure using AWS CloudFormation and Terraform.
- Manage CI/CD pipelines for faster and reliable software delivery.
- Monitor, optimize, and troubleshoot applications on AWS.
- Apply cost-optimization strategies in AWS deployments.

3. Target Audience

This course is ideal for:

- Cloud architects and system administrators.
- DevOps engineers and software developers.
- IT professionals seeking AWS and DevOps expertise.
- Professionals preparing for AWS Certified Solutions Architect or AWS Certified DevOps Engineer exams.
- Anyone looking to build a career in cloud architecture and DevOps practices.

4. Pre-Requisites

- Basic understanding of cloud computing concepts.
- Familiarity with networking, operating systems, and application development.
- Prior experience in any programming or scripting language (recommended).
- Exposure to IT infrastructure or system administration will be helpful.

5. Course Content

Module 1: Introduction to AWS and Cloud Computing

- AWS global infrastructure and core services
- Shared responsibility model
- Identity and Access Management (IAM)

Module 2: Designing AWS Architectures

- VPC, subnets, and networking essentials
- Load balancing and auto-scaling
- High availability and fault-tolerant design

Module 3: AWS Storage and Database Services

- S3, EBS, and Glacier
- RDS, DynamoDB, and Redshift
- Backup and recovery strategies

Module 4: DevOps Fundamentals

- Principles of DevOps and agile practices
- CI/CD pipeline concepts
- Configuration management basics

Module 5: Infrastructure as Code (IaC)

- AWS CloudFormation
- Terraform basics and implementation
- Automating deployments

Module 6: CI/CD on AWS

- AWS CodeCommit, CodeBuild, CodeDeploy, and CodePipeline
- Integrating Jenkins with AWS
- Blue/Green and Canary deployments

Module 7: Containerization and Orchestration

- Docker fundamentals
- Kubernetes on AWS (EKS)
- Amazon ECS and Fargate

Module 8: Monitoring, Logging, and Security

- AWS CloudWatch and CloudTrail
- Centralized logging and monitoring
- Security best practices in AWS

Module 9: Optimization and Cost Management

Phone: +91-999-911-1686 **Mail Us:** info@ssdntech.com

- Cost optimization strategies
- Resource tagging and budgeting tools
- Performance tuning on AWS

Phone: +91-999-911-1686 **Mail Us:** info@ssdntech.com