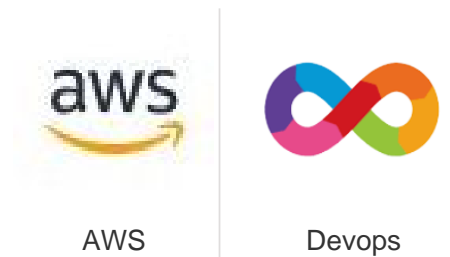


## Fundamentals of DevOps With AWS

This course cover the essential topics for mastering **DevOps** practices using **Amazon Web Services(AWS)** . Adjust the depth of each module based on the audience's prior knowledge and the duration of the crash courses. Hands-on labs and practical exercises will be crucial for reinforcing the theoretical concepts covered in these courses.

### Tech Stack To Be Covered



## Devops With AWS

### Outline:

1. Introduction to DevOps and AWS
2. Infrastructure as Code (IaC) with AWS
3. Continuous Integration and Continuous Deployment (CI/CD) on AWS
4. Monitoring and Logging
5. Security and Compliance in AWS DevOps
6. Best Practices and Case Studies

## **Detailed Syllabus:**

### **Module 1: Introduction to DevOps and AWS**

- Understanding DevOps principles and practices
- Overview of AWS services relevant to DevOps
- Setting up an AWS account and navigating the AWS Management Console

### **Module 2: Infrastructure as Code (IaC) with AWS**

- Introduction to Infrastructure as Code (IaC) and its benefits
- AWS CloudFormation basics
- Automating infrastructure with AWS CloudFormation and AWS CDK (Cloud Development Kit)
- Using Terraform for provisioning AWS resources

### **Module 3: Continuous Integration and Continuous Deployment (CI/CD) on AWS**

- Introduction to CI/CD concepts
- Setting up AWS CodePipeline for CI/CD
- Using AWS CodeBuild for build automation
- Deploying applications with AWS CodeDeploy
- Integrating Git repositories with AWS CodePipeline

### **Module 4: Monitoring and Logging**

- Monitoring applications with Amazon CloudWatch
- Centralized logging with AWS CloudTrail and Amazon CloudWatch Logs
- Using AWS X-Ray for debugging and analyzing applications

### **Module 5: Security and Compliance in AWS DevOps**

- AWS Identity and Access Management (IAM) fundamentals

- Implementing security best practices in AWS
- Managing secrets with AWS Secrets Manager
- Ensuring compliance with AWS Config and AWS Trusted Advisor

#### **Module 6: Best Practices and Case Studies**

- DevOps best practices on AWS
- Cost management and optimization strategies
- Real-world case studies of DevOps implementations on AWS