FUSION SOFTWARE INSTITUTE

WWW.FUSION-INSTITUTE.COM

-Intro to Cloud Computing

-Intro to Datacenters

-Intro to Cloud Models. IaaS, PaaS and SaaS.

-Intro to Amazon Web Services.

-Intro to AWS Management Console

NETWORKING IN AWS

-Intro to AWS VPC

-VPC Elements (VPC, Subnets, Internet Gateway,Routing Table, Routes)

-Creating your first VPC in AWS Management Console

-Create VPC in AWS CLI and Cloud Shell

-Inter VPC Peering

-NAT Gateway

-Site-to-Site IPSec VPN

-Security Groups and Access Control Lists

Virtualization in AWS

-Introduction to EC2

-Create your Instance in EC2

-Placement Groups, Boot Scripts, Key Pairs, etc.

-Elastic Block Store volumes.

-EBS Snapshots

-AMI (Amazon Machine Image

-Monitoring EC2 Instances with CloudWatch

-Configuring notification with Simple

Fusion Software

NotificationService (SNS)

-Configuring Identity with Identity Access Management (IAM)

-User Accounts, Groups, Custom Policies, Roles, MFA, Password Policies, etc.

-Configuring application high availability withElastic Load Balancer (ELB)

-Configuring dynamic scaling with AutoScaling Groups (ASG)

Database in AWS

-Understanding Relational Database in AWS (RDS)

-Implementing RDS Database instance in AWS

-Accessing RDS in AWS

-Understanding NoSQL Database in AWS

-Implementing and Configuring Dynamo DB in AWS

-Intro to AWS ElastiCache

Web Application hosting in AWS

Fusion Software

Introduction to Name Resolution in AWS

-Intro to DNS Name Resolution
-Intro to Route 53
-Domain registration
-Zone Hosting
-Creating Records in Zones
-Record Types

Intro to Storage in AWS

-Intro to Shared Storage
-Implementing Elastic File System (EFS)
-Mounting EFS Share on Linux Instances
-Intro to traditional Backups
-Intro to Glacier
-Creating Glacier Vault
-Backup and Restore data
-Intro to Object Storage
-Introduction to Simple Storage Service (S3)
-Create S3 bucket
-Upload file in S3 Bucket
-S3 Object Class
-Object URL
-S3 Versioning
-S3 Object Lock

Fusion Software

-S3 Public Access

-S3 Replication and Lifecycle Rules

-End user access to S3

-Application connectivity to S3

-CloudFront with S3

Containers in AWS

-Intro to Containers

-Intro to Docker

-Intro to Elastic Container Services (ECS)

-ECS Cluster, Task Definitions,
Service andLoad Balancer

-ECS with IAM, Data Volumes and Auto Scaling

-Intro to Image Repository

-Intro to Elastic Container Registry (ECR)

-Implementing ECR

-Intro to Fargate

Other AWS Services Over View

- 2 Live Projects
- 100% Job Assurance
- Weekly Mock Interviews

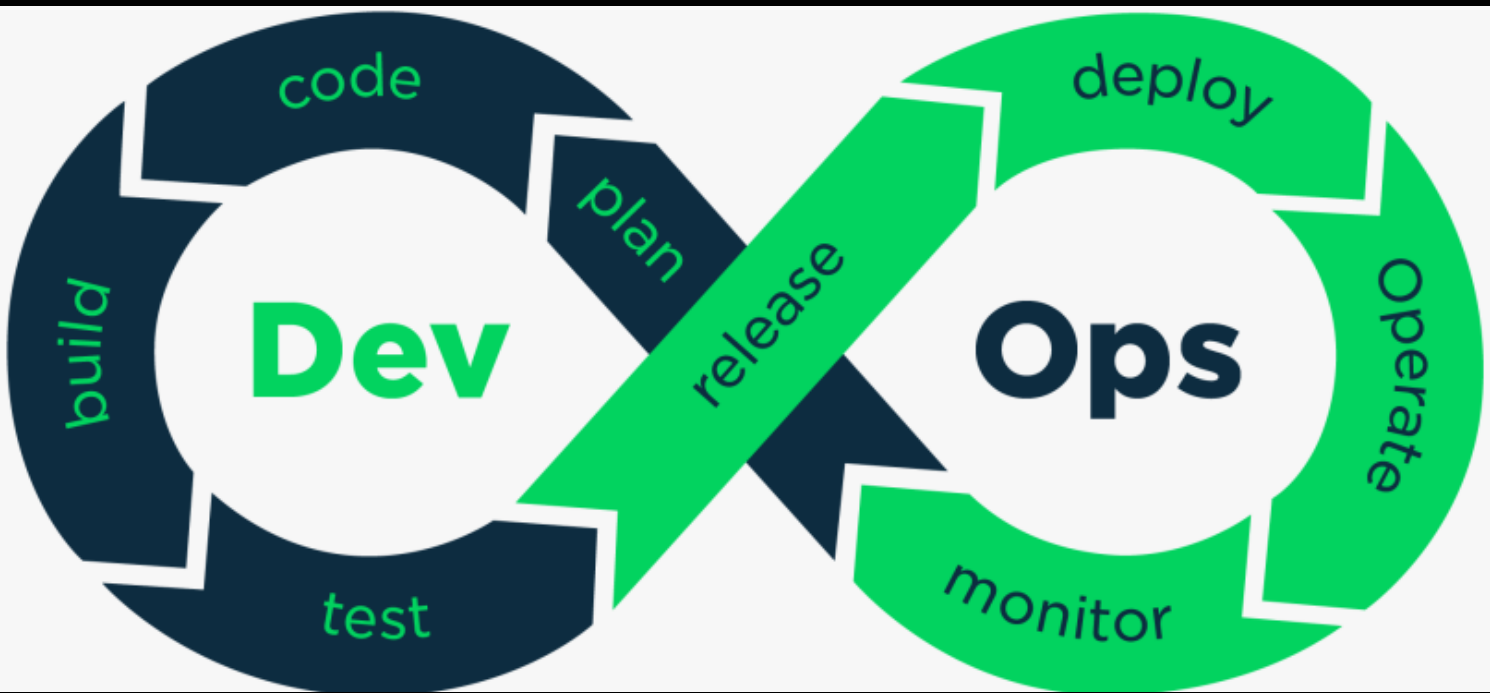
Fusion Software

Fusion Software

Fusion Software Institute

WWW.FUSION-INSTITUTE.COM

DEVOPS



WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

1. INTRODUCTION TO DEVOPS

- *What Is Software Development?*
- *Software Development Life Cycle*
- *Traditional Models For SDLC*
- *Why DevOps?*
- *What Is DevOps?*
- *DevOps Lifecycle*
- *DevOps Tools*
- *Installation Of DevOps Tools On AWS*

2. SOFTWARE VERSION CONTROL

- *What Is Version Control*
- *Types Of Version Control*
- *System Introduction To SVN*
- *Introduction To Git*
- *Git Lifecycle*
- *Common Git Commands*
- *Working With Branches In Git*
- *Merging Branches*
- *Resolving Merge Conflicts*
- *Git Workflow*

WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

3. PUPPET

- *Need Of Configuration Management*
- *Configuration Management Tools*
- *What Is Puppet?*
- *Puppet Architecture*
- *Setting Up Master Slave Using Puppet*
- *Puppet Manifests*
- *Puppet Modules*
- *Applying Configuration Using Puppet*
- *Puppet File Server*

4. DOCKER

- *Introduction To Docker*
- *Understanding Docker Lifecycle*
- *Components Of Docker Ecosystem*
- *Common Docker Operations*
- *Creating DockerHub Account*
- *Committing Changes In Container*
- *Pushing Container Image To DockerHub*
- *Creating Custom Docker Images Using Dockerfile*
- *What Are Docker Volumes?*
- *Deploying Multi-Tier Application Using Docker Network*
- *Using Docker Compose To Deploy Containers*
- *What Is Container?*
- *Orchestration Container*
- *Orchestration Tools*

WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

5. ANSIBLE

- *What Is Ansible?*
- *Ansible Vs Puppet*
- *Ansible Architecture*
- *Setting Up Master Slave Using Ansible*
- *Ansible Playbook*
- *Ansible Roles*
- *Applying Configuration Using Ansible*

6. CONTINUOUS TESTING

- *What Is Continuous Testing?*
- *Introduction To Maven*
- *Running Test Cases On Chromium Web Driver*
- *What Is Headless Mode?*

7. JENKINS

- *What Is Continuous Integration?*
- *Introduction To Continuous Integration Jenkins*
- *Master Slave Architecture*
- *Understanding CI/CD Pipelines*
- *Creating End To End Automated CI/CD Pipeline*

WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

8. KUBERNETES

- *What Is Continuous Orchestration?*
- *Introduction To Kubernetes*
- *Docker Swarm Vs Kubernetes*
- *Kubernetes Architecture*
- *Deploying Kubernetes Using Kubeadms*
- *Different ways Of Deploying Kubernetes*
- *YAML Files*
- *Creating Deployment In Kubernetes Using YAML*
- *Services In Kubernetes*
- *Ingress In Kubernetes*

9. NAGIOS

- *What Is Continuous Monitoring?*
- *Introduction To Nagios*
- *Nagios Architecture*
- *Monitoring Services In Nagios*
- *What Are NRPE Plugins?*
- *Monitoring System Info using NRPE plugins*

WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

10. DEVOPS ON AWS

- *DevOps Principles On AWS Platform*
- *DevOps Methodology On AWS Platform*
- *DevOps Lifecycle*
- *Important Stages In DevOps Methodology*
- *AWS CodeBuild*
- *AWS CodeCommit*
- *AWS CodePipeline*
- *AWS CodeDeploy*

11. TERRAFORM MODULES & WORKSPACES

- *What Is Infrastructure As A Code*
- *IAC Vs Configuration Management*
- *Introduction To Terraform*
- *Installing Terraform On AWS*
- *Basic Operations In Terraform*
- *Terraform Code Basics*
- *Deploying & End-To-End Architecture On AWS Using Terraform*

WWW.FUSION-INSTITUTE.COM

TABLE OF CONTENTS

12. DEPLOYING INFRASTRUCTURE WITH TERRAFORM

- *Installing Terraform Windows Users*
- *Installing Terraform Linux Users*
- *Choosing Right IDE For Terraform IAC Development*
- *Creating EC2 Instance With Terraform*
- *Terraform Code - First EC2 Instance*
- *Understanding Resources & Providers*
- *Destroying Infrastructure With Terraform*
- *Destroying Specific Resource*
- *Understanding Terraform State Files*
- *Understanding Desired & Current States*
- *Challenges With Current State On Computed Values*
- *Terraform Commands – State Files*
- *Terraform Provider Versioning*
- *Types Of Terraform Providers*
- *Understanding Attributes & Output Values In Terraform*
- *Attribute Resource (Document)*
- *Referencing Cross-Account Resource Attributes*
- *Terraform Variables*
- *Data Types For Variables*
- *Fetching Data From Maps & List In Variable*
- *Terraform Format*
- *Validating Terraform Configuration Files*

13. 2 LIVE PROJECT