DevOps + AWS Master Program course Content with 100% Job Guaranteed

DevOps + AWS Course Content

MODULE1:- INTRODUCTION TO DEVOPS

What is DevOps?

History of

DevOps What is

Dev and Ops

DevOps

definition

DevOps and Software Development Life

Cycle Build and release workflow

DevOps main objectives

MODULE2:-GIT and GitHub(SCM)

What is GIT?
Installing Git for Windows

Basic Commands

Overview Diff b/w Git

and SVN

Git stages

Creating

Branches

Git merge and rebase

Backing Out Changes

Renaming and Moving Files & Deleting

Files Git Repository Setup

Git push, pull and

fetch Git Stash

Git

Conflicts

Git fetch

Git Tags

Git cherry pick

How to use Github and Bitbucket

MODULE3:-MAVEN

Over view of Maven

Diff b/w Maven and

Ant

How to install Maven in Windows and

Linux Maven Phases

Maven repositories

How to create .Jar, .war and .ear

files How to add dependency

files

Sample Maven Projects

How to Deploy Executable files in Application Servers

MODULE4:-TOMCAT

What is Tomcat

How to install Tomcat in

windows How to install

Tomcat in Linux How to

deploy code in Tomcat

Deploying code by using

Jenkins

MODULE5:-JENKINS (CI/CD)

What is CI/CD

Introduction to

Jenkins History of

Jenkins/Hudson

How to install Jenkins in Windows and

Linux How to create Jobs

Diff types of jobs

Working with Github

Working with Builds

Build from Github Project

Managing Remote Systems with

Jenkins Parameterised Builds

Securing Jenkins

How to install plugins in

Jenkins Scheduling Builds

Setting up Different Types of Automated

Builds How to configure one job to another

job Configure Global Security Jenkins

Administration How to create maven type

job

How to create ant type

job Jenkins pipeline

Jenkins Backup

How to deploy code in servers

Authentication and

Authorization How to create

Nodes in diff Servers Build

pipeline view

Most useful 20 plugins

MODULE6:-Sonarqube

What is Sonarqube

How to Install Sonarqube

Analyzing with Sonarqube scanner for

Maven Integrate Sonaqube with Maven

Integrate Sonaqube with Jenkins

MODULE7:-CHEF and ANSIBLE

Workflow of Chef

How to install Chef in Linux and Windows

What is Work-station, Chef-Server,

Nodes Servers and Nodes concept

Chef Configuration

Concepts Workstation

Setup

Creating Cookbooks and uploading into

server How to use Ruby in Chef

About Bootstrap

Package/service

actions

Installing Multiple packages at one

time How to manage Chef-Servers

Create roles

Add Roles to

organization How to

Add Run list to Node

Check node Details

How to create Data bags

Add Database to organization

Create a server and add to

organization Check node details

using knife

Create

organization

Environments

Add yourself and node to

organization Adding nodes to

Chef-Server

Most useful

cookbooks What is

Puppet

What is diff b/w Puppet and

chef? What is Ansible

What is Ansible & its

features How to setup

Ansible

Understanding Ansible architecture &

Execution Ansible documentation

Installing packages by using

Ansible Writing playbook

MODULE8:-AWS Services

Introduction

cloud Benefits of

AWS

1.EC2,

2.EBS,

3.VPC,

4.ENI,

5.SNS,

6.ELB

7.Auto scaling

8.IAM

9.Snapshots

10.Elastic ip

11.S3

12.RDS

13.Cloud Watch

14.Cloud Front

15.Elastic Cache … etc

MODULE9:-Virtulization

installing centos/ RHEL on

VMware installing centos/ RHEL

on Virtual Box

MODULE10:-Docker

Learning the Basics of

Docker Introduction to

Docker Containers vs

Virtual Machines Docker

Architecture

Docker Hub

Docker

Installation

Creating Our First Image

Working with Multiple Images

Packaging a Customized

Container

Running Container Commands with

Docker Managing and Removing Base

Images Pushing to Docker Hub

Creating Shared volume

groups Create own images

Docker

Networking

Docker file for

user Volume

management

Docker Link

Docker Compose

MODULE11:-LINUX Commands

All basics of Linux

How to create files, dir, and groups

How to change permissions of files, dir, and groups How to

create users ssh

Scp

Wins

cp

Scp

Cron

MODULE12:-Shell Scripting

Variables

Operators

Expressions

Control statements

Arrays

Loops

Basic script example

Command line arguments

MODULE13:- Nagios

Nagios Introduction

Nagios Architecture

Nagios Plugins

Nagios Commands

Nagios Notification

MODULE14:- Kibana

- ✓ Kibana – Overview
- ✓ Kibana - Environment Setup
- ✓ Kibana - Loading Sample Data
- ✓ Kibana - Create Visualization
- ✓ Kibana - Working With Charts
- ✓ Kibana - Working With Graphs
- ✓ Kibana - Create Dashboard

MODULE15:- Grafana

- ✓ Install Grafana
- ✓ Create Dashboard
- ✓ Create Data Source
- ✓ Create Visualization chats, panels, graphs
- ✓ Create Dynamic Variables
- ✓ Create Dynamic queries

MODULE16:- Promethues

- ✓ Install Prometheus
- ✓ Access Prometheus endpoint metrics
- ✓ Integration with grafana

MODULE17:- Kubernates

Introduction To Kubernetes

- What is Kubernetes?
- Features and Benefit of Kubernetes
- Architecture of Kubernetes
- Container orchestration
- Concept of Kubernetes - Cluster, Node, Master, Service
- Kubernetes Components - Master , Nodes
- Explains Kubernetes Runtime - Docker, Rkt

Environment Setup and Configuration

- Single-Node Cluster VS Multi-Node Cluster
- Creating the Cluster
- Initializing the master
- pod network
- Scaling containers

- Forwarding container ports
- YAML
- JSON

✔ *Running Code in Kubernetes*

- Container registries
- Setup Container
- Dockerfile commands
- Building and Running the container
- Port forwarding
- Proxy

✔ *Background Processing in Kubernetes*

- Explain Background process
- CronJob
- Persistence with Kubernetes
- Stateful Sets

✔ *Integration with Continuous Delivery*

- Explain continuous Delivery concept
- Integrating with Jenkins
- Install and Setup a Jenkins server
- Docker registry
- Docker Trusted Registry

MODULE18:- Taraform

Introduction to Terraform

- Overview of Terraform architecture
- Obtaining and installing Terraform
- Terraform CLI
- Infrastructure lifecycle

Language Components

- Resources
- Data Sources
- Terraform Providers - AWS, Microsoft Azure, Google Cloud, On-premise
- Modules
- Input and output variables

- Complex variable types
- Locals
- Validation rules
- Interpolation
- Expressions

Infrastructure as Code

- Patterns for structuring projects
- Terraform workspaces
- Abstracting services and resources
- Planning your architecture
- Creating Terraform Configuration Files
- Terraform in CICD pipelines
- Terminating infrastructure with Terraform Destroy
- Using terraform modules from Git
- Setting up a simple two-tier AWS architecture
- Using Packer to pre-configure Amazon Machine Images (AMIs)
- Using Consul for Service DIscovery

State Management

- Managing state files
- State file structure
- Backend configuration (Terraform Cloud, Azure, AWS)
- State locking
- Terraform Cloud vs Azure differences
- Inspecting and modifying state
- Importing resources
- Tainting resources

Environment Variables

- Dealing with parameters
- Environment variable options and precedence
- Automatic loading of variables
- Variables in Terraform Cloud

- Key variables (TF_LOG, TF_VAR_name...)

Managing Resources

- Implicit and Explicit Dependencies
- Non-dependant Resources
- Using triggers
- Iterating on Resources
- Conditional resources

MODULE19:- Packer

1. Getting to Know Packer
- What is Packer?
- Installing Packer
- The Packer workflow and components
- The Packer CLI

2. Baking a Website Image for EC2
- Select an AWS AMI base
- Automate AWS AMI base build
- Using build variables
- Provision Hello World
- Provision a basic site

3. Customization with a Config Management Tool
- Simplify provisioning with a config tool
- Use ansible to install the webserver
- Debugging

4. Building Hardened Images
- Use Ansible modules to harden our image
- Baking a Jenkins image

MODULE20:- python

- Python foundations, including a brief introduction to the language
- How to automate text, write command-line tools, and automate the file system
- Cloud computing, infrastructure as code
- Building, deploying, and operationalizing a machine learning project

MODULE21:-

Real Time Project Integrations

MODULE22:-

Agile Methodology

SDLC Process

Scrum Process

Kanban Process

Provide Training materials stuff:- Daily 1 hr class(Mon-Fri) , 2+ months duration , 80 hrs .

1. **Resume Preparations (0-5 yrs)**
2. **Conduct 10+ Mock interviews**
3. **Share Daily class pdf/word materials**
4. **Share Daily class recorded videos**
5. **Provide 50+ live telephonic interview audios**

Note: If required we will assist you on 1.Job Support, 2.Proxy Support, 3.Work Experience Support.

==========END DevOps+AWS==========