



# DevOps Master Course

(Azure Cloud + AWS Cloud + AWS DevOps + IaC with Terraform + Linux)

---

**Microsoft Azure Solutions skills and take your career to the next level!**



# DevOps Master Course

(Azure Cloud + AWS Cloud + Azure DevOps + IaC with Terraform + Linux)

---

The goal of a Master DevOps course is to impart the abilities and information required to create, implement, and oversee cloud infrastructure and applications utilizing DevOps techniques. Typically, the course concentrates on using cloud platforms and tools to automate the processes involved in software development, delivery, and operations.

## JOB

### 1.3 Million Job Postings

There is a global estimate of 1.3 million job postings for Cloud DevOps by 2028

## Growth

### Growing Cloud DevOps Domain

40% CAGR in the global cloud DevOps

## Demand

### High Demand

By 2028, India and US will face a demand supply gap of 300,000 DevOps Engineer



# About Program

The goal of this DevOps Architect course is to provide you with total competence in the DevOps field. Individual courses on Azure Administration, DevOps, AWS, AWS DevOps, Kubernetes, Git, and GitHub are included in this training program. In order to obtain practical experience in this field and help you become a certified DevOps Architect, you will work on real-world projects.

## Key Highlights

- ✓ 100 Hrs Instructor-led virtual Training
- ✓ Recording would be provided of all sessions
- ✓ Project / Lab based Training
- ✓ Certification Assistance will be provided
- ✓ Microsoft Certified Trainer and Industry Expert will conduct the training
- ✓ Trainer has 20+ years of industry experience



# Program Curriculum

## Module 1

### Introduction to Microsoft Azure

- Introduction to cloud computing
- What is Microsoft Azure?
- Microsoft Azure Services
- Azure Portal
- Azure CLI
- Azure PowerShell

## Module 2

### Manage Microsoft Entra ID users and groups

- Create users and groups
- Manage user and group properties
- Manage licenses in Microsoft Entra ID
- Manage external users
- Configure self-service password reset (SSPR)
- Manage built-in Azure roles
- Assign roles at different scopes
- Interpret access assignments

## Module 3

### Azure Administration

- Azure Portal introduction
- Azure PowerShell
- Azure Bash
- Azure ARM

## Module 4

### Azure Governance and Compliance

- Azure Subscription
- Azure Cost Management
- Azure Policy
- RBAC

## Module 5

### Azure Networking

- Azure Virtual Networks
- Azure Vnet
- Components IP Address
- Public & Private IPs
- Azure Vnet Subnets
- Azure Network Interface Cards (NIC)
- Network Security Group (NSG)
- Azure DNS
- Private DNS

## Module 6

### Azure Intersite Connectivity

- Azure Vnet Peering
- Azure Vnet
- Hybrid Networking (VPN)
- Network Routing Table
- Network Endpoint



# Program Curriculum

## Module 7

### Administration of Network Traffic

- Application Gateway
- Azure Load Balancers
- Azure Firewall
- Azure Bastion
- Network Watcher

## Module 8

### Azure Storage Account

- Azure Storage Account
- Azure Container / Blob Service
- Azure Table Storage
- Azure Queue Storage
- Azure Storage Explorer
- Azure Shared Access Signature (SAS)
- Azure Storage Replication
- Data Replication Options
- Azure Import/Export Service

## Module 9

### Microsoft Azure Virtual Machine

- Azure Virtual Machines
- Data Disks in Azure
- Availability Set / Zone
- Azure VM Size
- Azure VM Scaling
- Virtual Machine Scale Sets

## Module 10

### Azure PaaS Compute Option

- Azure App Service Plan
- Azure App Service
- Azure Container Service
- Azure Kubernetes Service

## Module 11

### Azure Data Protection

- Azure Backup Centre
- Azure Files and Folder Backup
- On-Premises Files and Folder Backup
- Azure Virtual Machine Backup
- On-Premises VM Backup

## Module 12

### Azure Monitoring

- Azure Monitor
- Azure Metrics Log Analytics
- Alerts and actions
- Application Insights
- Backup reports
- Recovery Services
- Vault Backing Up
- Azure Virtual Machines
- VM Backup Policies
- Restoring Azure Virtual machines



# Program Curriculum

## Module 13

### Introduction to AWS

- AWS Architecture
- AWS Management Console
- Setting up of the AWS Account

## Module 14

### VPC (Virtual Private Cloud)

- Understanding & Configuring VPC
- Configuring Subnet & extracting N/W's out of VPC
- Configuring Route Table
- Understanding & Configuring Internet Gateway for VPC
- Egress only Internet Gateway
- NAT Gateway/NAT Instance Configuration
- DHCP option set
- Elastic IP
- Network access list
- VPC Peering
- Endpoint
- Egress Only Internet Gateways

## Module 15

### EC2 Cloud Compute services

- Launching the InstanceAMI
- Configuring Security Groups
- Understanding Security Key pair
- Configuring N/W Interfaces
- Understanding and Configuring dedicated Host
- Understanding Different Instance types

## Module 16

### VPN Connections

- Customer Gateway
- VPG Gateways & VPN Connections

## Module 17

### Storage & Content Delivery

- S3 Bucket Configuration & Implementation
- Static Web Hosting via S3 Bucket
- S3 bucket policy
- EBS
- Cloud front Configuration
- Understanding & Implementing Glacier Versioning S3
- Understanding Functionality Snowball Migrations

## Module 18

### Route 53

- Traffic Management
- DNS Management
- Traffic Policy & Endpoint
- Domain Name Registration

## Module 19

### Management Tools

- Understanding Integrated Features of Cloud watch
- Configuring Alarms & Cloud watch-based actions



# Program Curriculum

## Module 20

### Security Identify & Compliances

- Identify & Access Management
- Policy creation
- Roles creation
- CLI access

## Module 21

### Auto Scaling & ELB

- Configuring Auto Scaling & Creating Cloud watch for Optimization
- Creating Load Balancing with application & Classic Load Balancers

## Module 22

### Databases

- RDS
- Dynamo DB

## Module 23

### Serverless Functions

- Lambda
- Redshift
- EMR
- ElastiCache

## Module 24

### Elastic Beanstalk

- Concepts,
- Configuration
- Implement Env with sample code

## Module 25

### Cloud Formation

#### Management Tools

- Basic Concepts of CloudFormation
- Practice Assignment: Cloud Formation

#### Deployment and Provisioning

- CloudFormation:Terminology
- CloudFormation:Structure of the template
- CloudFormation:Working with Stacks
- CloudFormation:Ref functions
- CloudFormation:Parameters
- CloudFormation:Init and User Data
- CloudFormation:Creating Base templates
- CloudFormation:Troubleshooting templates

## Module 26

### I.Infrastructure as Code with Terraform

- Introduction to Terraform
- Terraform Architecture
- Terraform Concepts
- Providers , Resources, Data, Provisioner, Variable, Output, Interpolation
- Terraform CLI
- Terraform Modules
- Resource Graph
- Terraform Registry



# Program Curriculum

## Module 27

### Introduction to Linux and Architecture

- What is Linux
- Kernel, Shell, and File System

## Module 28

### Linux Commands

- Navigation (ls, cd, pwd)
- File operations (cp, mv, rm, mkdir)
- Viewing and editing files (cat, less, vi/nano)

## Module 29

### User and Permission Management

#### Users and Groups

- Managing users and groups (adduser, usermod, groupadd)
- Understanding /etc/passwd and /etc/group

#### File Permissions

- Understanding read, write, and execute permissions
- Modifying permissions (chmod, chown, chgrp)
- Access Control Lists (ACLs) and sudo privileges

## Module 30

### Linux Networking

- Basic Networking Concepts
- Networking Commands
- Configuring Networking

## Module 31

### Shell Scripting for Automation

- Introduction to Shell Scripting
- Writing basic shell scripts
- Variables, loops, and conditionals
- Automating Tasks
- Creating scripts for repetitive tasks
- Scheduling jobs with cron
- Error Handling and Debugging
- Exit codes, error messages, and debugging scripts

## Module 32

### Disk and File System Management

- Understanding Linux File Systems
- EXT4, XFS, BTRFS, and others
- Disk Management Tools
- fdisk, df, du, lsblk
- Mounting and unmounting file systems
- Storage Optimization
- Managing storage space with df, du, and lsof
- Using LVM (Logical Volume Management)





# Course **Projects**

Projects cover the following industries:



Retail



Social Media



Banking



Healthcare



E-Commerce



Insurance



Supply Chain

## Contact Us:

**Pune, India**

**Flat # A-702, Ashtvinayak City, Phursungi Village Road, Phursungi, Pune, Maharashtra Phone No: +91-844-6677-218**

**Ranchi, India**

**Falt # C-1D, Sail City, New Pundag, Ranchi, Jharkhand**

**Email: [info@piyushacademy.com](mailto:info@piyushacademy.com)**