GETIN TECHNOLOGIES

KOVILPATTI (HEAD OFFICE) - 8925831826 | VIRUDHUNAGAR - 8925831828 | TIRUNELVELI- 8925831821 | TUTICORIN - 8925831824 | COIMBATORE - 8925831822 | BANGALORE - 8925831823 | CHENNAI - 8925831821

COURSE NAME: AZURE DEVOPS TRAINING

Visit our website for Course Fees and Course Duration

Placement Eligibility:

Eligible: Any Bachelor Degree, Any Master Degree, MBA

No Eligible: Diploma

Class Mode:

Classroom | Online | Recorded Session | AI Session

If you have Completed Course, You want only Placements +91 8925831829

Training Partnership with

Placement Partnership with

Head Office Address: Door No: 971G/6, 1st Floor, Kalki Street, Manthithoppu Road, Krishna Nagar, Kovilpatti - 628502.

GST No: 33ABAFG2025J1ZV **Website:** www.getintech.in **Email:** enquiry@getintech.in

AZURE DevOps COURSE SYLLABUS

AZURE:

Introduction to Cloud Computing

- **Understanding cloud computing**
- **Types of cloud services (IaaS, PaaS, SaaS)**
- **Advantages and disadvantages of cloud computing**

Introduction to Microsoft Azure

- **Overview of Azure**
- **Azure's global data center presence**
- **Azure regions, availability zones, and data residency**

Azure Services Overview

- **Core Azure services (Compute, Storage, Networking)**
- **Identity and access management (Azure Active Directory)**
- **Azure Marketplace and App Services**

Virtual Machines (VMs) in Azure

- **Creating and configuring Azure VMs**
- **VM storage options**
- **VM availability sets and scale sets**
- **VM backup and disaster recovery**

Azure Storage

- **Azure Blob storage**
- **Azure File storage**
- **Azure Table and Queue storage**
- **Azure Data Lake Storage**

Azure Networking

- **Virtual networks (VNets) in Azure**
- **Azure Load Balancer**
- **Azure VPN Gateway**
- **Azure Application Gateway**

Azure Identity and Access Management

- **Azure Active Directory (Azure AD)**
- **Azure AD Connect**
- **Azure AD B2B and B2C**

Azure Security and Compliance

- **Azure Security Center**
- **Azure Policy**
- **Compliance and governance in Azure**

Azure Virtualization and Containers

- **Azure virtualization with Hyper-V**
- **Azure Kubernetes Service (AKS)**
- **Containerization with Docker**

Azure Monitoring and Management Tools

- **Azure Monitor and Application Insights**
- **Azure Log Analytics**
- **Azure Management Groups**

Serverless Computing with Azure Functions

- **Introduction to serverless computing**
- **Creating and deploying Azure Functions**
- **Event-driven computing in Azure**

Databases and Data Services in Azure

- **Azure SQL Database**

- **Azure Cosmos DB**

- **Azure Cache for Redis**

Hybrid Cloud Solutions

- **Azure Arc**

- **Azure Site Recovery**

- **Hybrid networking solutions**

Building Applications in Azure

- **Azure DevOps and CI/CD**

- **Deploying web applications on Azure**

- **Application scaling and high availability**

IoT and AI in Azure

- **Azure IoT Hub**

- **Azure Machine Learning**

- **Cognitive Services**

Cost Management and Billing

- **Managing Azure costs**

- **Azure Cost Management and Billing**

- **Budgets and alerts**

DevOps:

Introduction to DevOps

- **History of DevOps**

- **DevOps principles**

- **Benefits of DevOps**

- **DevOps tools and technologies.**

Source Code Management:

- **GIT**
- **GITHUB**

Continuous Integration and Continuous Deployment

- **Jenkins**

Configuration Management

- **Ansible**

Containerization

- **Docker**

Monitoring and Logging

- **Splunk**
- **Prometheus**

Infrastructure Automation

- **Terraform**

Case studies and projects

- **Real-world use cases of DevOps principles and practices, and projects to apply what you have learned.**

Kubernetes:
Introduction to Kubernetes

- **Overview of Kubernetes**
- **Key Kubernetes concepts**
- **Kubernetes ecosystem and CNCF**

Kubernetes Architecture

- **Master and worker nodes**

- **Control plane components (API server, etcd, scheduler, controller manager)**

- **Node components (Kubelet, Kube Proxy, container runtime)**

Installing and Configuring Kubernetes

- **Setting up a local development cluster (e.g., Minikube)**

- **Installing Kubernetes on cloud platforms (e.g., AWS, Azure)**

- **Configuration files and tools (kubectl)**

Deploying and Managing Containers with Kubernetes

- **Creating pods and deployments**

- **Service and networking in Kubernetes**

- **ConfigMaps and Secrets**

Scaling and Load Balancing

- **Horizontal Pod Autoscaling (HPA)**

- **Cluster scaling and multi-cluster strategies**

- **Load balancing with Services**

Persistent Storage in Kubernetes

- **Persistent Volume (PV) and Persistent Volume Claim (PVC)**

- **Storage Classes**

- **StatefulSets**

Configuring and Managing Applications

- **Application configuration with ConfigMaps and Secrets**

- **Rolling updates and rollbacks**

- **Liveness and readiness probes**

Helm and Package Management

- **Introduction to Helm**

- **Helm charts and releases**

- **Managing applications with Helm**

Kubernetes Networking

- **Service networking (ClusterIP, NodePort, LoadBalancer)**

- **Ingress controllers**

- **Network policies**

Security in Kubernetes

- **Role-Based Access Control (RBAC)**

- **Pod security policies**

- **Secrets management and encryption**

Monitoring and Logging

- **Kubernetes monitoring with Prometheus**

- **Logging with Fluentd and Elasticsearch**

- **Metrics and alerting**

Backup and Disaster Recovery

- **ETCD backup and restore**

- **Disaster recovery strategies**

- **Backup tools and practices**

Multicluster and Hybrid Kubernetes

- **Federation of clusters**

- **Hybrid cloud Kubernetes**

- **Multi-cluster management tools**