



Azure DevOps



The Best Training Institute in Hyderabad



MODULE 1

Microsoft Azure Syllabus :

- Introduction to Azure
- Different segments SaaS, PaaS, and IaaS
- Azure Regions and Data Centers
- Understanding of Microsoft Azure portal
- Introduction to all Azure services
- Windows Azure Subscription
- Setting Up a Trial Subscription

Lab :

- Installation of Azure cmdlets on windows PowerShell



MODULE 2

Azure Virtual Machines :

- Operating System Images Supported
- Virtual Machine instances
- Azure VM types and Pricing
- Types of Provisioning
- Disks & Images Azure Devops
- Virtual Machine management, automation and scripting
- Cloud Service and Resource Model Deployment
- Setting up VM in Availability set using Load Balanced Endpoint
- VM Availability using Availability Sets

Lab :

- Creation of VMs with portal, ARM Templates and PowerShell
- Deploying two VMs in Availability Set and load balancing it.



MODULE 3

Introduction to Azure Virtual Network and Services :

- Types of Azure Virtual Network VNET to VNET, point-to-site and site-to-site, Express Route
- Creating Virtual Networks in Azure
- Azure Subnet and IP ranges
- Endpoints
- Load Balancing Endpoints
- Understanding Network ACL and Network Security Group Setting up Private and Public IP
- Introduction to Azure Traffic Manager Azure Devops
- Available options in Azure Traffic Manager
- Understanding of Deployment Traffic Manager

Lab :

- Create a VET-to-VNET virtual networks
- Create a point-to-site virtual network.
- Create a site-to-site virtual network.
- Load Balancing using Azure Traffic Manager.



MODULE 4

Microsoft Azure Storage :

- Overview of Microsoft Azure Storage
- Storage Account
- Storage Account Replication Techniques
- Protocols and Consistency Model
- Type of Azure Storage Account
- Storage Services Blob, Table, queue, File
- Azure CDN Services, Managed and Unmanaged Disk

Lab :

- Provisioning Azure Storage services
- Create an Azure Storage Account
- Deploying Blob Storage
- Deploying Table Storage
- Deploying Queue Storage
- Deploying File Storage



MODULE 5

Manage Azure Active Directory (AD) :

- Azure Active Directory Overview
- Self-Service Password Reset
- Azure AD Identity Protection
- Integrating SaaS Applications with Azure AD
- Azure Domains and Tenants
- Azure Users and Groups
- Azure Roles
- Managing Devices

Lab :

- Implement Azure Active Directory.
- Configure Self-Service Password Reset
- Implement Azure AD Identity Protection
- Configure integrated SaaS applications
- Configure domains and tenants, users and groups
- Manage roles and devices
- Migration of OnPrem AD Users to Azure AD
- Configure MFA



MODULE 6

Manage App Service Plans :

- App Service Overview
- App Service monitoring overview
- Web Role and Worker Role

Lab :

- App Service Plan
- Deploy Web App
- App Service Diagnostics



MODULE 7

Azure SQL Database :

- Understanding Database as a service
- Difference between SQL server and Azure SQL
- Advantage and Benefits of SQL database Scaling SQL database
- Backup and Performance Options Security in Azure
- SQL Pricing Model
- Azure SQL Data Warehouse

Lab :

- Migrate a database from on premise to SQL Azure



MODULE 8

Azure Backup and Site Recovery :

- Azure Vaults
- Configuring backups
- Data Protection Manager
- Azure Site Recovery and Disaster Recovery
- On Premise Migration using Recovery Services

Lab :

- Configure a Recovery Service Vault and backup files from on premise to cloud
- Site Recovery of a VM
- Back up of a VM



MODULE 9

Azure ARM Template :

- Introduction to Azure ARM Templates and its contentz

Lab :

- Deploying ARM Template with PowerShell

MODULE 10

Configure Server less Computing :

- Server less Computing, Functions and Logic Apps

Lab :

- Logic Apps
- Creating a Function App



MODULE 11

Manage App Services :

- App Settings
- Deployment Slots

Lab :

- App Settings
- Deployment Slots



MODULE 12

Data Factory :

- Introduction to Azure Data Factory
- Core Concepts – Data sets, Pipelines and activities, Scheduling and execution
- Run Samples – Customer Profiling
- Moving Data, Transformation and Analysis
- Monitoring and managing the Pipelines
- Common Use Cases and Samples

Lab :

- Orchestrating the On-Prem data from SQL DB to Azure DB by creating a data pipeline using Blob storage



MODULE 13

Azure Container Service :

- Introduction to Azure Container Service
- Overview of Containers
- Introduction to Azure Container Registry
- Azure Kubernetes Services
- Introduction

Lab :

- Deploy an Azure container registry
- Build a container image using Azure Container Registry Tasks
- Deploy the container to an Azure container instance
- Replicate the container image to multiple Azure datacenters
- Run Docker containers with Azure Container Instance
- Run Azure Container Instances
- Deploying AKS in Azure



MODULE 14

Azure Cosmos DB:

- Introduction
- What is a request unit?
- What is Partition Strategy and Key?
- Query types

Lab :

- Create an Azure Cosmos DB account in the Azure portal
- Create a database and collection in Azure Cosmos DB
- Run queries in the Azure portal

Projects :

- Deploying VM in Availability set and load balancing the traffic .
through External Load Balancer.
- Deploying Web Apps in two different regions and managing it t .
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Devops Overview:

- > Introduction to the Azure DevOps
- > Creating Azure DevOps Organization
- > Creating Team Projects and Teams
- > DevOps Licensing

Azure Boards

- > Azure Boards Overview
- > Work Items
- > Working with Boards and Sprints
- > Working with Backlog
- > Bugs

Azure Repository

- > Introduction to Azure Repos & Source Control
- > Working with Git Repo
 - o Understanding Git
 - o Creating a Git Repo in Azure DevOps
 - o Git Branching & o Branching strategies
- > Git Glow & Git Hub Flow Azure Devops
- > Branching and Merging & Managing Git Repositories
- > Branch Authorizations and Policies



Azure Pipelines

- > Azure Pipelines Overview & Manage Azure Pipeline Infrastructure
- > o DevOps Agents overview & o Hosted vs Self-hosted Agents
- > o Implementing Self-hosted Agents & o Docker with Azure Pipeline
- > Creating Build Pipeline & o Build Fundamentals
- > o Build Details & o Build Triggers
- > o Build options & o Optimizing the build
- > o Building a Docker Image
- > o Build Pipeline for .Net Core Application
- > Creating Release Pipeline
- > o Azure DevOps Release Management
- > o Artifacts, Stages and Gates Azure Devops
- > o Agent Jobs and Tasks
- > o Release Variables
- > o Continuous Deployment
- > o Create a release for an ASP.Net web application
- > Deployment and Task Groups
- > o Understanding Deployment Groups
- > o Understanding Task Groups



Azure Test Plans

- > Introduction to Azure Test Plans
- > Types of Tests
- > Running Automated Tests in a Pipeline
- > Creating and Executing Manual Tests

Azure Artifacts

- > Introduction to Azure Artifacts
- > About Feeds
- > Creating a Feed
- > Publishing NuGet Packages
- > Consuming NuGet Packages

. **Ansible**

. **Terraform**

. **Docker**

. **Git**

. **Git hub**

. **Kubernetes**



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