# **INFOSOFT IT SOLUTIONS**

Training | Projects | Placements

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# **Azure Course Content**

# **Cloud Computing & Microsoft Azure Fundamentals**

- Introduction to Azure
- Different segments SaaS, PaaS, and IaaS
- Azure Regions and Data Centres
- 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.

# Azure Virtual Machines – Microsoft Azure Syllabus

# **Operating System Images Supported**

- Virtual Machine instances
- Azure VM types and Pricing
- Types of Provisioning
- Disks & Images
- 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 the portal, ARM Templates, and PowerShell
- Deploying two VMs in Availability Set and load balancing it.

# Introduction to Azure Virtual Network and Services – Microsoft Azure Syllabus

- Types of Azure Virtual Network VNET to VNET, point-to-site and site-tosite, 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
- 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.

#### Microsoft Azure Storage – Microsoft Azure Syllabus

- 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

# Manage AzureActive 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

#### Manage App Service Plans – Microsoft Azure Syllabus

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

#### Lab:

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

# Azure SQL Database – Microsoft Azure Syllabus

- Understanding Database as a service
- Difference between SQL server and Azure SQL
- Advantages and Benefits of SQL database Scaling SQL database

- Backup and Performance Options Security in Azure
- SQL Pricing Model
- Azure SQL Database Warehouse

#### Lab:

• Migrate a database from on-premise to SQL Azure

#### **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
- Backup of a VM

#### **Azure ARM Template – Microsoft Azure Syllabus**

• Introduction to Azure ARM Templates and its content

#### Lab:

• Deploying ARM Template with PowerShell

#### **Configure Serverless Computing**

• Serverless Computing, Functions, and Logic Apps

#### Lab:

- Logic Apps
- Creating a Function App

#### **Manage App Services**

- App Settings
- Deployment Slots

#### Labs:

- App Settings
- Deployment Slots

# Data Factory – Microsoft Azure Syllabus

- 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.

### **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

# Azure Cosmos DB – Microsoft Azure Syllabus

- Introduction
- What is a request unit?

- What is Partition Strategy and Key?
- Query types

Lab:

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