



**AZ-104**

# Microsoft Azure Administrator

## 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: Introduction to ARM & Azure Storage

- Azure Resources & Subscriptions
- Azure Resource Manager
- Managing Azure Resources
- Azure Tags
- Azure Storage Account & its types
- Azure Blob Storage
- Azure Content Delivery Network (CDN)
- Azure Files Storage
- Azure File Sync

## Module 3: Introduction to Azure storage

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

## Module 4: Azure Virtual Machines

- Azure Virtual Machines
- Data Disks in Azure
- Azure VMs & Interfaces
- ARM templates
- VHD templates
- Custom Images of Azure VM
- Virtual Machine Scale Sets
- Virtual Machine Availability Sets

## Module 5: Azure App and Container Services

- App Service Web App for Containers
- App Service plan
- Networking for an App Service
- Deployment slots
- Container image
- Azure Kubernetes Service
- Azure Container Registry

## Module 6: 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)
- Route Tables
- Service Tags
- Azure DNS
- Private DNS,

## Module 7: Azure Networking - II

- Application Gateway
- Azure Front Door Service
- Azure Traffic Manager
- Application Security Groups
- Azure Load Balancers
- Azure Firewall
- Azure Bastion
- Network Watcher
- Azure Express Route
- Express Route Circuits
- Express Route Peering

## Module 8: Authentication and Authorization in Azure using RBAC

- Identity and Access Management in Azure
- Role Based Access Management (RBAC)
- Role Definitions
- Role Assignment in Azure Resources
- Azure Users & Groups
- RBAC Policies

## Module 9: Microsoft Azure Active Directory

- Azure Active Directory (Azure AD)
- Windows AD Vs Azure AD
- Azure AD Users
- Azure AD Groups
- Azure AD Domains
- Azure AD Tenants
- Authentication Options
- Azure AD Connect
- Self Service password Reset (SSPR)
- Multi Factor Authentication (MFA)
- Resource Locks

## Module 10: 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,

## Module 11: Multi Factor Authentication (MFA)

- MFA Fraud Alerts
- MFA Bypass Options
- MFA Trusted IPs
- MFA Verification Methods
- Azure Key Vault
- Azure AD Managed Identities
- Azure AD Application Management

## Module 12: Migration in Azure

- Understanding VM migration
- Azure Migrate
- Azure Site recovery
- Server Assessment
- Server Migration

## Module 13: Azure Data Platform - I

- NoSQL and NoSQL Database
- Cosmos DB
- Multiple APIs and Data Models
- Request Units
- Request Unit Calculator

- Achieving Elastic Scale
- Partition Key
- Cross-partition Queries
- Replication
- Turnkey Global
- Distribution
- Turnkey Global Distribution
- Replication and Consistency
- Consistency Levels
- Document Database
- Cosmos DB Resource Model
- Resource Properties, Self-links, and URLs

## Module 14: Azure Data Platform - II

- Data Migration Tool
- Rich Query with SQL
- SQL Operators and Functions
- Client Development
- Indexing Policies
- Users, Permissions, and Resource Tokens
- Server-side Programming Model
- Triggers
- User-defined Functions (UDFs)
- Table API
- Cosmos DB Graph Database
- Vertices and Edges
- Populating the Graph
- Bi-directional Relationships
- Writing Gremlin Queries
- Azure Table Storage