

# Microsoft Azure Administrator

The Azure course is a specialized training program designed to provide IT professionals with the skills and knowledge needed to work with Microsoft's cloud computing platform, Azure. This course covers a wide range of topics such as virtual machines, storage, networking, security, and application deployment, all within the context of the Azure platform. The program is designed to help IT professionals understand how to leverage Azure to build, deploy, and manage cloud-based solutions that are highly available, scalable, and secure. Upon completion of the Azure course, participants will have gained the skills necessary to build and manage applications, data, and infrastructure on the Azure platform, which is increasingly becoming a critical skill in the rapidly evolving cloud computing industry.

## Course Outline

- Managing Microsoft Azure
- Azure Virtual Networks
- Azure Resource Manager and Virtual Machines
- Managing Azure Load Balancer
- Azure App Service
- Azure Storage, Backup, And Recovery Services

## Course Curriculum

### Introduction to Azure

- Overview of Azure
- Cloud technology overview
- Azure Regions
- Managing Azure with the Azure portal
- Managing Azure with Windows PowerShell
- Managing Azure with ARM Template
- Managing Azure with Visual Studio
- Overview of Azure Resource Manager
- Azure management services

## **Managing Microsoft Azure**

- Creating Azure Account
- Types of Administrators
- Use the Azure portals
- Use Azure Resource Manager Features via the Azure portal.
- Use Azure PowerShell, Visual Studio, Azure Cloud Shell
- Overview of Azure Resources and Resource Group
- Creating and Managing Azure Resources and Resource Group

## **Implementing and Managing Azure Networking**

- Overview of Azure Networking
- Overview of Azure Networking Components
- Overview of Azure Virtual Network Gateways
- Overview of Azure Point to Site, Site to Site and Express Route VPN
- Implementing and managing Azure virtual networks (VNet)
- Configuring Azure virtual networks and Managing IP and Subnet
- Configuring Azure virtual network connectivity
- Configuring Azure VNet Peering and Global VNet Peering

## **Using a Deployment Template to Implement Azure Virtual Networks**

- Creating an Azure virtual network by using a deployment template

- Creating a virtual network by using PowerShell
- Configure virtual networks

## **Configuring Connectivity Azure Resource Manager Virtual Networks**

- Using a PowerShell script to connect a classic VNet and an Azure Resource Manager VNet
- Configuring Azure Virtual Network Gateways – Point to Site VPN
- Validating virtual network connectivity

## **Implementing Virtual Machines**

- Overview of Azure Resource Manager Virtual Machines
- Planning for Azure virtual machines
- Deploying Azure Resource Manager Virtual Machines
- Authoring Azure Resource Manager Templates
- Overview of classic virtual machines

## **Creating Azure Resource Manager Virtual Machines in Azure**

- Creating virtual machines by using the Azure portal and Azure PowerShell
- Validating virtual machine creation

## **Deploying Azure Resource Manager Virtual Machines by using Azure Resource Manager Templates**

- Using Visual Studio and an Azure Resource Manager template to deploy virtual machines
- Using Azure PowerShell and an Azure Resource Manager template to deploy virtual machines

## **Managing Azure Virtual Machines**

- Configuring virtual machines
- Configuring virtual machine disks
- Managing and monitoring Azure virtual machines
- Managing size virtual machines
- Configuring VMSS and Deploy VMSS Virtual Machines
- Configuring Auto Scaling, horizontal and vertical scaling
- Implementing desired state configuration (DSC)
- Implementing storage space-based volumes.

## **Implement and Managing Azure Load Balancer**

- Overview of Azure Load Balancer
- Types of Azure Load Balancers
- Configuring Azure Load Balancer and Azure Traffic Manager Load Balancer

## **Planning and Implementing Storage, Backup, and Recovery Services**

- Planning storage, creating and configuring storage accounts
- Implementing and Managing Storage
- implement Azure Storage Account Kind and Replication Scope
- Managing access keys and generating shared access signature Keys
- Implementing Azure Content Delivery Networks
- Implementing Azure Backup
- Planning for and implementing Azure Site Recovery

- Creating and configuring Azure storage
- Using Azure file storage and Blob storage
- Protecting data with Microsoft Azure Backup

## **Implementing Network Security Group (NSG)**

- Create security rule
- Associate NSG with a subnet or network interface
- Identify required ports
- Evaluate effective security rules

## **Azure name resolution - DNS**

- Configure Azure DNS
- Configure custom Domain and DNS Records settings
- Configure private and public DNS zones

## **Azure App Service**

- Overview Azure App Service
- Configuring and Managing Website's
- Pushing Webpages
- Configuring Custom Domain

## **Implementing Azure Active Directory and Manage Hybrid Identities**

- Administering Active AD
- Creating and managing Azure AD tenants
- Creating and managing Azure AD Users and Groups
- Creating and managing Azure AD Bulk User accounts

- Configuring, Assigning SAAS application and resource access with Azure AD Users
- Overview of Azure AD Premium
- Configuring SSO
- Configuring Multi-Factor Authentication and enable MFA by using bulk update
- Configuring SSO from a Windows 10–based computer
- Joining Windows-10 and Windows-11 Devices to Azure AD - BYOD
- Manage Azure AD Connect
- Sync on-premises ADDS users with Azure AD - hybrid - AD users
- Install Azure AD Connect, including password hash and pass-through synchronization
- Use Azure AD Connect to configure with on-premises Active Directory Domain Services (AD DS)
- Azure AD Custom Domain Configuration
- Role-based access control (RBAC) Configuration
- Assign Roles to users
- Configuring Availability Set and Availability Zone