



AZ104 - Version: 1

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Microsoft Azure Administrator



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 **4 days Course**

Description:

This course teaches IT Professionals how to manage their Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, back up and share data, and monitor your solution.

Intended audience:

This course is for Azure Administrators. The Azure Administrator implements, manages, and monitors identity, governance, storage, compute, and virtual networks in a cloud environment. The Azure Administrator will provision, size, monitor, and adjust resources as appropriate.

Prerequisites:

Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.

Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.

Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).

Understanding of resilience and disaster recovery, including backup and restore operations.

Objectives:

Secure and manage identities with Azure Active Directory.
Implement and manage users and groups.
Implement and manage Azure subscriptions and accounts.
Implement Azure Policy, including custom policies.
Use RBAC to assign permissions.
Leverage Azure Resource Manager to organize resources.
Use the Azure Portal and Cloud Shell.
Use Azure PowerShell and CLI.
Use ARM Templates to deploy resources.
Implement virtual networks and subnets.
Configure public and private IP addressing.
Configure network security groups.
Configure Azure Firewall.
Configure private and public DNS zones.
Configure VNet Peering.
Configure VPN gateways.
Choose the appropriate intersite connectivity solution.
Configure network routing including custom routes and service endpoints.
Configure an Azure Load Balancer.
Configure and Azure Application Gateway.
Choose the appropriate network traffic solution.
Create Azure storage accounts.
Configure blob containers.
Secure Azure storage.
Configure Azure files shares and file sync.
Manage storage with tools such as Storage Explorer.
Plan for virtual machine implementations.
Create virtual machines.
Configure virtual machine availability, including scale sets.
Use virtual machine extensions.
Create an app service plan.
Create a web app.
Implement Azure Container Instances.
Implement Azure Kubernetes Service.
Backup and restore file and folders.
Backup and restore virtual machines.
Use Azure Monitor.

Create Azure alerts.
Query using Log Analytics.
Use Network Watcher.

Topics:

Module 1: Identity

- Azure Active Directory
- Users and Groups

Module 2: Governance and Compliance

- Subscriptions and Accounts
- Azure Policy
- Role-based Access Control (RBAC)

Module 3: Azure Administration

- Azure Resource Manager
- Azure Portal and Cloud Shell
- Azure PowerShell and CLI
- ARM Templates

Module 4: Virtual Networking

- Virtual Networks
- IP Addressing
- Network Security groups
- Azure Firewall
- Azure DNS

Module 5: Intersite Connectivity

- VNet Peering

- VPN Gateway Connections
- ExpressRoute and Virtual WAN

Module 6: Network Traffic Management

- Network Routing and Endpoints
- Azure Load Balancer
- Azure Application Gateway
- Traffic Manager

Module 7: Azure Storage

- Storage Accounts
- Blob Storage
- Storage Security
- Azure Files and File Sync
- Managing Storage

Module 8: Azure Virtual Machines

- Virtual Machine Planning
- Creating Virtual Machines
- Virtual Machine Availability
- Virtual Machine Extensions

Module 9: Serverless Computing

- Azure App Service Plans
- Azure App Service
- Container Services
- Azure Kubernetes Service

Module 10: Data Protection

- File and Folder Backups

- Virtual Machine Backups

Module 11: Monitoring

- Azure Monitor
- Azure Alerts
- Log Analytics