

Azure Administration Associate

This Course makes you Master Microsoft Azure administration with hands-on labs and real-world projects to deploy, manage, secure, monitor, and optimize cloud infrastructure confidently.

Who It's For

- Freshers looking to start a career in **Cloud Computing**.
- **System Administrators** transitioning from on-premises infrastructure to Azure.
- **IT Support Engineers** aiming to upskill in cloud technologies.
- **Network Administrators** interested in Azure networking services.
- **Cloud Engineers** preparing for Azure Administrator roles.
- **Professionals** planning to earn the AZ-104 certification.
- **DevOps Engineers** seeking a strong Azure administration foundation.
- **Technical graduates** looking for job-oriented cloud skills.
- **Trainers and consultants** who want hands-on Azure expertise.

What You'll Learn

- Azure fundamentals and cloud concepts.
- Creating and managing Azure Virtual Machines.
- Azure Storage Accounts and data management.
- Azure Virtual Networks, Subnets, and Network Security Groups.
- Azure Load Balancer and Application Gateway.
- Azure Identity and Access Management using Microsoft Entra ID.
- Role-Based Access Control (RBAC) and governance.
- Monitoring and troubleshooting Azure resources.
- Azure PowerShell and Azure CLI administration.
- Real-world Azure administration scenarios and projects.
- Cost optimization and resource management.
- AZ-104 certification-focused concepts and labs.

Benefits You'll Gain

- Build **job-ready** Azure Administrator skills.
- Gain practical **hands-on experience** through labs and projects.
- Learn **real-world** cloud administration and troubleshooting.
- Improve your chances of **securing Azure-related job** roles.
- Understand **how enterprises deploy** and manage Azure resources.
- Develop confidence in **managing production** cloud environments.
- Prepare effectively for the **AZ-104 certification** exam.
- **Enhance** your cloud infrastructure and networking knowledge.
- Learn industry **best practices** for security and governance.
- Expand your career opportunities in **Cloud and DevOps** domains.

- Earn a **valuable cloud skill** set that is in high demand globally.
- Get exposure to **real-time scenarios** commonly asked in interviews.

Course Details

- **Duration:** 60 days (1 hour per day)
- **Mode:** Fully online – attend live
- **Start Date:** Flexible enrollment – begin anytime!

Topics that will be covered

Configure Subscriptions

- ◆ Introduction of Subscriptions
- ◆ Identify Azure Regions
- ◆ Implement Azure Subscriptions
- ◆ Obtain an Azure Subscriptions
- ◆ Identify Azure Subscription usage
- ◆ Implement Microsoft Cost Management
- ◆ Apply resource tagging
- ◆ Apply cost savings
- ◆ Labs on Cost Management

Configure Virtual Machines

- ◆ Introduction of Azure Virtual Machines
- ◆ Cloud Services responsibilities
- ◆ Plan Virtual Machines
- ◆ Determine Virtual Machine sizing
- ◆ Determine Virtual Machine Storage
- ◆ Create Virtual Machine in the Azure Portal
- ◆ Create a Windows Virtual Machine
- ◆ Connect to Virtual Machines using RDP connections

- ◆ Configure Azure Virtual Machine Network settings
- ◆ Labs on Creating Virtual Machines

Configure Virtual Networks

- ◆ Introduction of Azure Virtual Networks
- ◆ Plan IP Addressing
- ◆ Plan Virtual Networks
- ◆ Create Virtual Network and Subnets
- ◆ Create Public IP Addressing
- ◆ Associate Public IP Addresses
- ◆ Allocate or assign private IP Addresses
- ◆ Labs on Creating Virtual Network and Subnets

Configure Network Security Groups

- ◆ Introduction of Network Security Group
- ◆ Implement Network Security Groups
- ◆ Determine Network Security Group Rules
- ◆ Determine Network Security Group effective rules
- ◆ Create Network Security Group rules
- ◆ Implement Application Security Groups
- ◆ Labs on Network Security Group

Configure Azure Virtual Network Peering

- ◆ Determine Azure Virtual Network peering uses
- ◆ Determine gateway transit and connectivity
- ◆ Create Virtual Network peering
- ◆ Extend peering with user-defined routes and service
- ◆ Labs on Azure Virtual Network Peering

Configure Azure Load Balancer

- ◆ Determine Azure Load Balancer uses
- ◆ Implement a public Load Balancer
- ◆ Implement an Internal Load Balancer
- ◆ Determine Load Balancer SKUs
- ◆ Create back-end pools
- ◆ Create health probes

- ◆ Create Load Balancer rules
- ◆ Azure Load Balancer features and capabilities
- ◆ Labs on Azure Load Balancer

Configure Azure Application Gateway

- ◆ Introduction of Azure Application Gateway
- ◆ Implement Azure Application Gateway
- ◆ Determine Azure Application Gateway routing
- ◆ Configure Azure Application Gateway components
- ◆ Labs on Azure Application Gateway

Host your domain on Azure DNS

- ◆ Introduction of Azure DNS
- ◆ Configure Azure DNS to host your domain
- ◆ Create a DNS Zone and Records manually
- ◆ Dynamically resolve resource name by using alias record
- ◆ Labs on Azure DNS Zone

Configure Virtual Machine Availability

- ◆ Introduction of Virtual Machine Availability
- ◆ Plan for maintenance and downtime
- ◆ Create Availability Sets
- ◆ Review update domains and fault domains
- ◆ Review Availability Zones
- ◆ Compare Vertical and Horizontal Scaling
- ◆ Implement Azure Virtual Machine Scale sets
- ◆ Create Virtual Machine Scale Sets
- ◆ Implement Auto-scale
- ◆ Labs on Virtual Machine Availability

Configure Azure Storage account

- ◆ Introduction of Azure Storage account
- ◆ Implement Azure Storage
- ◆ Explore Azure Storage services
- ◆ Determine storage account types
- ◆ Determine replication strategies
- ◆ Access storage

- ◆ Secure storage endpoints
- ◆ Labs on Azure Storage account

Create an Azure Storage account

- ◆ Introduction of Azure Storage account
- ◆ Decide how many storage accounts you need
- ◆ Choose your storage settings
- ◆ Choose an account creation tool
- ◆ Labs on Creating Storage account

Configure Azure Blob Storage

- ◆ Introduction of Blob Storage
- ◆ Implement Azure Blob Storage
- ◆ Create blob containers
- ◆ Assign blob access tiers
- ◆ Add blob lifecycle management rules
- ◆ Determine blob object replication
- ◆ Upload objects to blobs
- ◆ Determine Blob Storage pricing
- ◆ Labs on Azure Blob Storage

Configure Azure Files and Azure File Sync

- ◆ Introduction of Azure Files Shares
- ◆ Compare storage for file shares and blob data
- ◆ Manage Azure File Shares
- ◆ Create File share snapshots
- ◆ Implement soft delete for Azure Files
- ◆ Use Azure Storage Explore
- ◆ Deploy Azure File Sync
- ◆ Labs on Azure Storage Files

Upload, Download and manage data with Azure Storage Explorer

- ◆ Introduction of Azure Storage Explorer
- ◆ Connect Azure Storage Explorer to a storage account
- ◆ Connect Azure Storage Explorer to Azure Data Lake Storage

- ◆ Labs on Azure Storage Explorer

Control access to Azure Storage with shared access signatures

- ◆ Introduction of access to Azure storage with SAS
- ◆ Authorization options for Azure Storage
- ◆ Use shared access signatures to delegate access to Azure Storage
- ◆ Use storage access policies to delegate access to Azure storage
- ◆ Labs on Azure SAS

Configure Azure Storage Security

- ◆ Introduction of Azure Storage Security
- ◆ Review Azure Storage security strategies
- ◆ Create shared access signatures
- ◆ Identify URI and SAS parameters
- ◆ Determine Azure Storage encryption
- ◆ Create customer managed keys
- ◆ Apply Azure Storage security best practices
- ◆ Labs on Azure Storage Security

Configure Network routing and endpoints

- ◆ Introduction of Network routing and endpoints
- ◆ Review system routes
- ◆ Identify user-defined routes
- ◆ Determine service endpoint uses
- ◆ Determine service endpoint services
- ◆ Identify private link uses
- ◆ Labs on endpoints

Manage and control traffic flow in Azure deployment with routes

- ◆ Introduction of Traffic Flow
- ◆ Identify routing capabilities of an Azure Virtual Network
- ◆ What is Network Virtual Appliance

- ◆ Route traffic through the Network Virtual Appliance
- ◆ Labs on Creating Network Virtual Appliance

Configure Azure App Service Plans

- ◆ Introduction of Azure App Service Plans
- ◆ Implement Azure App Service Plans
- ◆ Determine Azure App Service Plan pricing
- ◆ Scale up and scale out Azure App Service
- ◆ Configure Azure App Service auto-scale
- ◆ Labs on Creating Azure App Service Plan

Configure Azure App Service

- ◆ Introduction of Azure App Service
- ◆ Implement Azure App Service
- ◆ Create an app with App Service
- ◆ Explore continuous integration and deployment
- ◆ Create deployment slots
- ◆ Add deployment slots
- ◆ Secure your App Service App
- ◆ Create custom domain names
- ◆ Backup and restore your App Service app
- ◆ Use Azure Application Insights
- ◆ Labs on Azure App Services

Host a web application with Azure App Service

- ◆ Introduction of Web Application
- ◆ Create a web app in the Azure Portal
- ◆ Prepare the web application code
- ◆ Labs on Web Application in Azure App Service

Understand Microsoft Entra ID

- ◆ Introduction of Microsoft Entra ID
- ◆ Examine Microsoft Entra ID
- ◆ Compare Microsoft Entra ID and Active Directory Domain Services

- ◆ Examine Microsoft Entra ID as a Directory Service for cloud apps
- ◆ Compare Microsoft Entra ID P1 and P2 plans
- ◆ Examine Microsoft Entra Domain Services

Configure user and group accounts

- ◆ Introduction of User and Groups in Entra ID
- ◆ Create user accounts
- ◆ Manage user accounts
- ◆ Create bulk user accounts
- ◆ Create group accounts
- ◆ Create administrative units
- ◆ Labs on Creating Users and Groups

Configure role-based access control

- ◆ Introduction of role-based access control
- ◆ Implement role-based access control
- ◆ Create a role definition
- ◆ Create a role assignment
- ◆ Compare Azure Roles to Microsoft Entra roles
- ◆ Apply role-based access control
- ◆ Review fundamental Azure RBAC roles
- ◆ Labs on Role Based Access Control

Create Azure users and groups in Microsoft Entra ID

- ◆ What are user accounts in Microsoft Entra ID
- ◆ Add and delete users in Microsoft Entra ID
- ◆ Manage app and resource access by using Microsoft Entra groups
- ◆ Assign users to Microsoft Entra groups
- ◆ Collaborate by using guest accounts and Microsoft Entra B2B
- ◆ Give guest users access in Microsoft Entra B2B

Secure your Azure resources with Azure role-based access control (RBAC)

- ◆ What is Azure RBAC
- ◆ List access using Azure RBAC and the Azure Portal
- ◆ Grant access using Azure RBAC and the Azure Portal
- ◆ View activity logs for Azure RBAC changes

Allow users to reset their password with Microsoft Entra self-service password reset

- ◆ Introduction to self-service password reset
- ◆ What is SSPR in Microsoft Entra ID
- ◆ Implement Microsoft Entra self-service password reset
- ◆ Customize directory branding

Configure Azure Policy

- ◆ Introduction of Azure Policy
- ◆ Create management groups
- ◆ Implement Azure Policies
- ◆ Create Azure Policies
- ◆ Create Policy definitions
- ◆ Create an initiative definition
- ◆ Scope the initiative definition
- ◆ Determine compliance
- ◆ Labs on Azure Policy

Configure Azure Container Instances

- ◆ Introduction of Azure Container Instances
- ◆ Compare containers to Virtual Machines
- ◆ Review Azure Container Instances
- ◆ Implement container groups
- ◆ Review Azure container groups
- ◆ Review Azure container Apps

Configure Azure Virtual Machine Backups

- ◆ Introduction of Virtual Machine Backups

- ◆ Explore options to protect Virtual Machine data
- ◆ Create Virtual Machine snapshots in Azure Backup
- ◆ Set up Azure Recovery Services vaults backup options
- ◆ Backup your Virtual Machines
- ◆ Restore your Virtual Machines
- ◆ Implement soft delete for your Virtual Machines
- ◆ Implement Azure Site Recovery
- ◆ Labs on Azure Virtual Machine Backups

Configure Azure Monitor

- ◆ Introduction of Azure Monitor
- ◆ Describe Azure Monitor key capabilities
- ◆ Describe Azure Monitor components
- ◆ Define metrics and logs
- ◆ Identify monitoring data and tiers
- ◆ Describe activity log events
- ◆ Query the activity log
- ◆ Labs on Azure Monitor

Configure Log Analytics

- ◆ Introduction of Log Analytics
- ◆ Determine Log Analytics uses
- ◆ Create a Log Analytics workspace
- ◆ Create Kusto (KQL) queries
- ◆ Structure Log Analytics queries
- ◆ Labs on Log Analytics

Configure Network Watcher

- ◆ Introduction of Network Watcher
- ◆ Describe Azure Network Watcher features
- ◆ Review IP flow verify diagnostics
- ◆ Review next hop diagnostics
- ◆ Visualize the network topology

Improve incident response with Azure Monitor alerts

- ◆ Introduction of Azure Monitor alerts

- ◆ Explore the different alert types that Azure Monitor supports
- ◆ Use metric alerts for alerts about performance issues in your Azure environment
- ◆ Use log alerts to alert on events in your application
- ◆ Use active log alerts to alert on events within your Azure infrastructure
- ◆ Use action groups and alert processing rules to send notifications when an alert is fired

Analyze your Azure infrastructure by using Azure Monitor logs

- ◆ Introduction of Azure Monitor Logs
- ◆ Features of Azure Monitor logs
- ◆ Create basic Azure Monitor log queries to extract information from log data

Monitor your Azure Virtual Machines with Azure Monitor

- ◆ Introduction of Azure Virtual Machines Monitor
- ◆ Monitoring for Azure VMs
- ◆ Monitor VM host data
- ◆ Use Metrics Explorer to view detailed host metrics
- ◆ Collect client performance counters by using VM insights
- ◆ Collect VM client event logs

Manage Virtual Machines with the Azure CLI

- ◆ What is Azure CLI
- ◆ Understand Azure Cloud shell
- ◆ Create a Virtual Machine
- ◆ Test your New Virtual Machine
- ◆ Explore other VM images
- ◆ Sizing VMs properly
- ◆ Query system and runtime information about the VM
- ◆ Start and Stop your VM with the Azure CLI
- ◆ Install software on your VM