QUANTUM-AI
THE SCHOOL OF DATA AND AI

AZ-104 MICROSOFT AZURE ADMINISTRATOR

INDUSTRY-ORIENTED | PROJECT-BASED | CAREER-FOCUSED

Welcome to Microsoft Azure Administrator

Build cloud administration skills with the AZ-104: Microsoft Azure Administrator training program. This course focuses on managing cloud services using Microsoft Azure, one of the world's leading cloud platforms.

Students learn how to manage Azure identities, virtual machines, storage, networking, and cloud security. Through hands-on labs and real-world scenarios, learners gain practical experience in deploying, monitoring, and maintaining cloud infrastructure. By the end of the course, participants are prepared to manage Azure environments and work confidently in cloud administration roles.



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WHY QUANTUMAI?

Quantum AI combines advanced computing and artificial intelligence to solve complex problems faster and smarter. We focus on future-ready skills, practical learning, and real-world applications in Data, AI, and emerging technologies. Our industry-oriented training prepares students to lead innovation and build successful careers in tomorrow's technology-driven world.

COURSE OVERVIEW

The AZ-104: Microsoft Azure Administrator course is designed to provide practical skills required to manage and monitor cloud infrastructure using Microsoft Azure. The program covers essential topics such as managing Azure identities and governance, implementing and managing storage, deploying and managing virtual machines, configuring virtual networks, and monitoring cloud resources.

Through hands-on labs, real-world scenarios, and guided exercises, learners gain experience in configuring and maintaining secure and scalable cloud environments. By the end of the course, students are prepared to administer Azure services effectively and support modern cloud-based IT infrastructures.



Manage Azure identities and governance

Manage Azure Active Directory (Azure AD) objects

- create users and groups
- manage user and group properties
- manage device settings
- perform bulk user updates
- anage guest accounts
- configure Azure AD join
- configure self-service password reset

Manage role-based access control (RBAC)

- create a custom role
- provide access to Azure resources by assigning roles at different scopes
- interpret access assignments

Implement and manage storage

Secure storage

- configure network access to storage accounts
- create and configure storage accounts
  - Certificate provided
  - Recordings Provided
  - Classes In Hindi/urdu
  - Expert Trainers
- generate shared access signature (SAS) tokens
- manage access keys
- configure Azure AD authentication for a storage account
- configure access to Azure Files

Manage storage

- export from Azure job
- import into Azure job
- install and use Azure Storage Explorer
- copy data by using AZCopy
- implement Azure Storage replication
- configure blob object replication

Configure Azure files and Azure Blob Storage

- create an Azure file share
- create and configure Azure File Sync service
- configure Azure Blob Storage
- configure storage tiers for Azure Blob Storage
- configure blob lifecycle management

Deploy and manage Azure compute resources

Automate deployment of virtual machines (VMs) by using Azure Resource Manager templates

- modify an Azure Resource Manager template
- configure a virtual hard disk (VHD) template
- deploy from a template
- save a deployment as an Azure Resource Manager template

- deploy virtual machine extensions

Configure VMs

- configure Azure Disk Encryption
- move VMs from one resource group to another
- manage VM sizes
- add data disks
- configure networking
- redeploy VMs
- configure high availability
- deploy and configure scale sets

Create and configure containers

- configure sizing and scaling for Azure Container Instances
- configure container groups for Azure Container Instances
- configure storage for Azure Kubernetes Service (AKS)
- configure scaling for AKS
- configure network connections for AKS
- upgrade an AKS cluster

Create and configure Azure App Service

- create an App Service plan
- configure scaling settings in an App Service plan
- create an App Service
- secure an App Service
- configure custom domain names
- configure backup for an App Service
- configure networking settings
- configure deployment settings

Configure and manage virtual networking

Implement and manage virtual networking

- create and configure virtual networks, including peering
- configure private and public IP addresses
- configure user-defined network routes
- implement subnets
- configure endpoints on subnets
- configure private endpoints
- configure Azure DNS, including custom DNS settings and private or public DNS zones.

Secure access to virtual networks

- create security rules
- associate a network security group (NSG) to a subnet or network interface
- evaluate effective security rules
- implement Azure Firewall
- implement Azure Bastion

Configure load balancing

- configure Azure Application Gateway
- configure an internal or public load balancer
- troubleshoot load balancing

Monitor and troubleshoot virtual networking

- monitor on-premises connectivity
- configure and use Network Performance Monitor
- troubleshoot external networking
- troubleshoot virtual network connectivity

Integrate an on-premises network with an Azure virtual network

- create and configure Azure VPN Gateway
- create and configure Azure ExpressRoute
- configure Azure Virtual WAN

Monitor and back up Azure resources

Monitor resources by using Azure Monitor

- configure and interpret metrics
- configure Azure Monitor logs
- query and analyze logs
- set up alerts and actions

Implement backup and recovery

- create a Recovery Services vault
- create and configure backup policy
- perform backup and restore operations by using Azure Backup
- perform site-to-site recovery by using Azure Site Recovery
- configure and review backup reports

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BUILD SCALABLE APPLICATIONS

Learn AZ-104: Microsoft Azure Administrator with QuantumAI

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