GALILEU

AZ-104: Microsoft Azure Administrator

Microsoft - Azure Apps & Infrastructure

Live Training (também disponível em presencial)

- **Localidade:** Aveiro
- **Data:** 18 Sep 2023
- **Preço:** 1200 € (Os valores apresentados não incluem IVA. Oferta de IVA a particulares e estudantes.)
- **Horário:** Laboral das 09h00 - 17h00
- **Nível:** Intermédio
- **Duração:** 28h

Sobre o curso

O presente curso ensina Profissionais de TI a gerir as suas subscrições do Azure, a proteger identidades, a administrar a infraestrutura, a configurar o funcionamento em rede virtual, a ligar sites Azure a sites on-premises, a gerir o tráfego de rede, a implementar soluções de armazenamento, a criar e a escalar máquinas virtuais, a implementar aplicações web e contentores, a fazer cópias de segurança e a partilhar dados, e a monitorizar soluções.

Destinatários

- Este curso destina-se a Administradores do Azure.
- As tarefas destes correspondem à implementação, à gestão e à monitorização de aspetos como a identidade, a governação, o armazenamento, a computação e as redes virtuais num ambiente cloud.
- A frequência deste curso possibilitará aos Administradores do Azure que providenciem, dimensionem, monitorizem e ajustem os recursos conforme seja apropriado.

Objetivos

- Prepare for Exam AZ-104: Microsoft Azure Administrator
- Manage Azure Active Directory objects, role-based access control (RBAC), subscriptions, and

governance in Azure

- Manage storage accounts, data in Azure Storage, and Azure File and Blob storage
- Deploy and configure virtual machines, containers, and Web Apps in Azure
- Configure and manage Azure network capabilities like connectivity services, application protection, application delivery, and network monitoring services
- Monitor resources by using Azure Monitor and implement backup and recover in Azure

Pré-requisitos

- Administradores do Azure bem-sucedidos com experiência em virtualização, funcionamento em rede, identidade e armazenamento.
- Compreensão das tecnologias de virtualização on-premises, incluindo máquinas virtuais, funcionamento em rede virtual e discos rígidos virtuais.
- Compreensão das configurações de rede, incluindo TCP/IP, Domain Name System (DNS), redes privadas virtuais (VPNs), firewalls e tecnologias de encriptação.
- Compreensão dos conceitos do Active Directory, como utilizadores, grupos e controlo de acesso baseado em funções.
- Compreensão das abordagens de resiliência e de recuperação após desastre, incluindo cópias de segurança e operações de restauro.

Programa

- Configure Microsoft Entra ID
- Configure user and group accounts
- Configure subscriptions
- Configure Azure Policy
- Configure role-based access control
- Configure Azure resources with tools
- Use Azure Resource Manager
- Configure resources with Azure Resource Manager templates
- Configure virtual networks
- Configure network security groups
- Configure Azure DNS
- Configure Azure Virtual Network peering
- Configure network routing and endpoints
- Configure Azure Load Balancer
- Configure Azure Application Gateway
- Configure storage accounts

- Configure Azure Blob Storage
- Configure Azure Storage security
- Configure Azure Files and Azure File Sync
- Configure Azure Storage with tools
- Configure virtual machines
- Configure virtual machine availability
- Configure Azure App Service plans
- Configure Azure App Service
- Configure Azure Container Instances
- Configure file and folder backups
- Configure virtual machine backups
- Configure Azure Monitor
- Configure Azure alerts
- Configure Log Analytics
- Configure Network Watcher

Configure Microsoft Entra ID

Learn how to configure Microsoft Entra ID, including features like Microsoft Entra join and self-service password reset.

In this module, you learn how to:

- Define Microsoft Entra concepts, including identities, accounts, and tenants.
- Describe Microsoft Entra features to support different configurations.
- Understand differences between Microsoft Entra ID and Active Directory Domain Services (AD DS).
- Choose between supported editions of Microsoft Entra ID.
- Implement the Microsoft Entra join feature.
- Use the Microsoft Entra self-service password reset feature.

- Describe Microsoft Entra ID benefits and features
- Describe Microsoft Entra concepts
- Compare Active Directory Domain Services to Microsoft Entra ID
- Select Microsoft Entra editions
- Implement Microsoft Entra join
- Implement Microsoft Entra self-service password reset

Configure user and group accounts

Learn how to configure user and group accounts.

In this module, you learn how to:

- Configure users accounts and user account properties.
- Create new user accounts.
- Import bulk user accounts with a template.
- Configure group accounts and assignment types.

- Create user accounts
- Manage user accounts
- Create bulk user accounts
- Create group accounts
- Create administrative units

Configure subscriptions

Learn how to configure Azure subscriptions, including how to obtain a subscription, implement cost management, and apply Azure resource tags.

In this module, you learn how to:

- Determine the correct region to locate Azure services.
- Review features and use cases for Azure subscriptions.
- Obtain an Azure subscription.
- Understand billing and features for different Azure subscriptions.
- Use Microsoft Cost Management for cost analysis.
- Discover when to use Azure resource tagging.
- Identify ways to reduce costs.

- Identify Azure regions
- Implement Azure subscriptions
- Obtain an Azure subscription
- Identify Azure subscription usage
- Implement Microsoft Cost Management
- Apply resource tagging
- Apply cost savings

Configure Azure Policy

Learn how to configure Azure Policy to implement compliance requirements.

In this module, you learn how to:

- Create management groups to target policies and spending budgets.
- Implement Azure Policy with policy and initiative definitions.
- Scope Azure policies and determine compliance.

- Create management groups
- Implement Azure policies
- Create Azure policies
- Create policy definitions
- Create an initiative definition
- Scope the initiative definition
- Determine compliance

Configure role-based access control

In this module, you learn how to:

- Identify features and use cases for role-based access control.
- List and create role definitions.
- Create role assignments.
- Identify differences between Azure RBAC and Microsoft Entra roles.
- Manage access to subscriptions with RBAC.
- Review built-in Azure RBAC roles.

- 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

Configure Azure resources with tools

You will learn how to select a tooling option such as Azure portal, Azure PowerShell, Azure CLI, or Azure Cloud Shell.

After completing this module, you will be able to:

- Manage resources with the Azure portal.
- Manage resources with Azure Cloud Shell.
- Manage resources with Azure PowerShell.
- Manage resources with Azure CLI.

- Use the Azure portal
- Use Azure Cloud Shell
- Use Azure PowerShell
- Interactive lab simulation (Azure PowerShell)
- Use Azure CLI

- Interactive lab simulation (Azure CLI)

Use Azure Resource Manager

You'll learn how to use resource groups to organize your Azure resources.

After completing this module, you'll be able to:

- Identify the features and usage cases for Azure Resource Manager.
- Describe each Azure Resource Manager component and its usage.
- Organize your Azure resources with resource groups.
- Apply Azure Resource Manager locks.
- Move Azure resources between groups, subscriptions, and regions.
- Remove resources and resource groups.
- Apply and track resource limits.

- Review Azure Resource Manager benefits
- Review Azure resource terminology
- Create resource groups
- Create Azure Resource Manager locks
- Reorganize Azure resources
- Remove resources and resource groups
- Determine resource limits

Configure resources with Azure Resource Manager templates

You'll learn how to use Azure Resource Manager templates to consistently deploy assets.

After completing this module, you'll be able to:

- List the advantages of Azure templates.
- Identify the Azure template schema components.
- Specify Azure template parameters.
- Locate and use Azure Quickstart Templates.

- Review Azure Resource Manager template advantages
- Explore the Azure Resource Manager template schema
- Explore the Azure Resource Manager template parameters
- Consider Bicep templates
- Review QuickStart templates
- Interactive lab simulation – templates

Configure virtual networks

Learn to configure virtual networks and subnets, including IP addressing.

In this module, you learn how to:

- Describe Azure virtual network features and components.
- Identify features and usage cases for subnets and subnetting.
- Identify usage cases for private and public IP addresses.
- Create a virtual network and assign IP address.

- Plan virtual networks
- Create subnets
- Create virtual networks
- Plan IP addressing
- Create public IP addressing
- Associate public IP addresses
- Allocate or assign private IP addresses

Configure network security groups

Learn how to implement network security groups, and ensure network security group rules are correctly applied.

In this module, you learn how to:

- Determine when to use network security groups.
- Create network security groups.
- Implement and evaluate network security group rules.
- Describe the function of application security groups.

- Implement network security groups
- Determine network security group rules
- Determine network security group effective rules
- Create network security group rules
- Implement application security groups
- Interactive lab simulation

Configure Azure DNS

Learn how to configure Azure DNS including custom domain names and record sets.

In this module, you learn how to:

- Identify features and usage cases for domains, custom domains, and private zones.
- Verify custom domain names by using DNS records.

- Implement DNS zones, DNS delegation, and DNS record sets.

- Identify domains and custom domains
- Verify custom domain names
- Create Azure DNS zones
- Delegate DNS domains
- Add DNS record sets
- Plan for Azure Private DNS zones
- Review Azure Private DNS zone scenarios

Configure Azure Virtual Network peering

Learn to configure an Azure Virtual Network peering connection and address transit and connectivity concerns.

In this module, you learn how to:

- Identify usage cases and product features of Azure Virtual Network peering.
- Configure your network to implement Azure VPN Gateway for transit connectivity.
- Extend peering by using a hub and spoke network with user-defined routes and service chaining.

- Determine Azure Virtual Network peering uses
- Determine gateway transit and connectivity
- Create virtual network peering
- Extend peering with user-defined routes and service chaining

Configure network routing and endpoints

Learn how to configure network routes, including endpoints and private links.

In this module, you learn how to:

- Implement system routes and user-defined routes.
- Configure a custom route.
- Implement service endpoints.
- Identify features and usage cases for Azure Private Link and endpoint services.

- Introduction
- Review system routes
- Identify user-defined routes
- Determine service endpoint uses
- Determine service endpoint services
- Identify private link uses

Configure Azure Load Balancer

Learn how to configure an internal or public load balancer.

In this module, you learn how to:

- Identify features and usage cases for Azure Load Balancer.
- Implement public and internal Azure load balancers.
- Compare features of load balancer SKUs and configuration differences.
- Configure back-end pools, load-balancing rules, session persistence, and health probes.

- 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

Configure Azure Application Gateway

Learn how to configure Azure Application Gateway.

In this module, you learn how to:

- Identify features and usage cases for Azure Application Gateway.
- Implement an Azure application gateway, including selecting a routing method.
- Configure gateway components, such as listeners, health probes, and routing rules.

- Implement Azure Application Gateway
- Determine Azure Application Gateway routing
- Configure Azure Application Gateway components

Configure storage accounts

Learn how to configure storage accounts, including replication and endpoints.

In this module, you learn how to:

- Identify features and usage cases for Azure storage accounts.
- Select between different types of Azure Storage and create storage accounts.
- Select a storage replication strategy.
- Configure secure network access to storage endpoints.

- Implement Azure Storage

- Explore Azure Storage services
- Determine storage account types
- Determine replication strategies
- Access storage
- Secure storage endpoints

Configure Azure Blob Storage

Learn how to configure Configure Azure Blob Storage, including tiers and object replication.

In this module, you learn how to:

- Understand the purpose and benefits of Azure Blob Storage.
- Create and configure Azure Blob Storage accounts.
- Manage containers and blobs within Azure Blob Storage.
- Optimize blob storage performance and scalability.
- Implement lifecycle management policies to automate data movement and deletion.
- Determine the best pricing plans for your Azure Blob Storage.

- Implement Azure Blob Storage
- Create blob containers
- Assign blob access tiers
- Add blob lifecycle management rules
- Determine blob object replication
- Upload blobs
- Determine Blob Storage pricing

Configure Azure Storage security

Learn how to configure common Azure Storage security features like storage access signatures.

In this module, you learn how to:

- Configure a shared access signature (SAS), including the uniform resource identifier (URI) and SAS parameters.
- Configure Azure Storage encryption.
- Implement customer-managed keys.
- Recommend opportunities to improve 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

Configure Azure Files and Azure File Sync

Learn how to configure Azure Files and Azure File Sync.

In this module, you learn how to:

- Identify storage for file shares and blob data.
- Configure Azure file shares and file share snapshots.
- Identify features and use cases of Azure File Sync.
- Identify Azure File Sync components and configuration steps.

- Compare storage for file shares and blob data
- Manage Azure file shares
- Create file share snapshots
- Implement Azure File Sync
- Identify Azure File Sync components
- Deploy Azure File Sync

Configure Azure Storage with tools

Learn how to configure Azure Storage with tools like Azure Storage Explorer and AZCopy.

In this module, you learn how to:

- Configure and use Azure Storage Explorer.
- Configure the Azure Import/Export service.
- Use the WAImportExport tool with the Azure Import/Export service.
- Configure and use AZCopy.

- Use Azure Storage Explorer
- Use the Azure Import/Export service
- Use the WAImportExport tool
- Use the AzCopy tool

Configure virtual machines

Learn how to configure virtual machines including sizing, storage, and connections.

In this module, you learn how to:

- Determine the responsibilities of cloud service providers and customers in a cloud computing environment.

- Identify the key considerations and factors involved in planning for virtual machines. Considerations include workload requirements, resource allocation, and secure access.
- Configure virtual machine storage and virtual machine sizing.
- Create a virtual machine in the Azure portal.
- Practice deploying an Azure virtual machine and verify the configuration.

- Review cloud services responsibilities
- Plan virtual machines
- Determine virtual machine sizing
- Determine virtual machine storage
- Create virtual machines in the Azure portal
- Connect to virtual machines

Configure virtual machine availability

Learn how to configure virtual machine availability including vertical and horizontal scaling.

In this module, you learn how to:

- Implement availability sets and availability zones.
- Implement update and fault domains.
- Implement Azure Virtual Machine Scale Sets.
- Autoscale virtual machines.

- 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 autoscale
- Configure autoscale

Configure Azure App Service plans

Learn how to configure an Azure App Service plan, including pricing and scaling.

In this module, you learn how to:

- Identify features and usage cases for Azure App Service.
- Select an appropriate Azure App Service plan pricing tier.
- Scale an Azure App Service plan.

- Implement Azure App Service plans
- Determine Azure App Service plan pricing
- Scale up and scale out Azure App Service
- Configure Azure App Service autoscale

Configure Azure App Service

Learn how to configure and monitor Azure App Service instances, including deployment slots.

In this module, you learn how to:

- Identify features and usage cases for Azure App Service.
- Create an app with Azure App Service.
- Configure deployment settings, specifically deployment slots.
- Secure your Azure App Service app.
- Configure custom domain names.
- Back up and restore your Azure App Service app.
- Configure Azure Application Insights.

- 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
- Back up and restore your App Service app
- Use Azure Application Insights

Configure Azure Container Instances

Learn how to configure Azure Container Instances including container groups.

In this module, you learn how to:

- Identify when to use containers versus virtual machines.
- Identify the features and usage cases of Azure Container Instances.
- Implement Azure container groups.

- Compare containers to virtual machines
- Review Azure Container Instances
- Implement container groups
- Review the Docker platform

Configure file and folder backups

Learn how to configure backup and restore policies that meet your company's regulatory needs.

In this module, you learn how to:

- Identify features and usage cases for Azure Backup.
- Configure Azure Recovery Services vault backup options.
- Configure the Microsoft Azure Recovery Services (MARS) agent for Azure Backup.
- Implement on-premises file and folder backups.

- Describe Azure Backup benefits
- Implement Backup Center for Azure Backup
- Configure Azure Recovery Services vault backup options
- Use the Microsoft Azure Recovery Services (MARS) agent
- Configure on-premises file and folder backups

Configure virtual machine backups

Learn how to configure virtual machine backups including restore operations.

In this module, you learn how to:

- Identify features and usage cases for different Azure backup methods.
- Configure virtual machine snapshots and backup options.
- Implement virtual machine backup and restore, including soft delete.
- Perform site-to-site recovery by using Azure Site Recovery.
- Compare the Azure Backup agent to the Microsoft Azure Backup Server.

- Explore options to protect virtual machine data
- Create virtual machine snapshots in Azure Backup
- Set up Azure Recovery Services vault backup options
- Back up your virtual machines
- Restore your virtual machines
- Implement System Center DPM and Azure Backup Server
- Compare the MARS agent and Azure Backup Server
- Implement soft delete for your virtual machines
- Implement Azure Site Recovery

Configure Azure Monitor

Learn how to configure Azure Monitor, including querying the Azure Monitor activity log.

In this module, you learn how to:

- Identify the features and usage cases for Azure Monitor.
- Configure and interpret metrics and logs.
- Identify the Azure Monitor components and data types.
- Configure the Azure Monitor activity log.

- 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

Configure Azure alerts

Learn how to configure Azure alerts including action groups.

In this module, you learn how to:

- Identify Azure Monitor alerts, including alert types and alert states.
- Configure Azure Monitor alerts.
- Create alert rules and action groups.

- Describe Azure Monitor alerts
- Manage Azure Monitor alerts
- Create alert rules
- Create action groups

Configure Log Analytics

You will learn how to configure Log Analytics including structuring queries.

After completing this module, you will be able to:

- Identify the features and usage cases for Log Analytics.
- Create a Log Analytics workspace.
- Structure a Log Analytics query and review results.

- Determine Log Analytics uses
- Create a Log Analytics workspace
- Create Kusto (KQL) queries
- Structure Log Analytics queries

Configure Network Watcher

You learn how to configure Network Watcher and troubleshoot common networking problems.

After completing this module, you'll be able to:

- Identify the features and usage cases for Azure Network Watcher.
- Configure diagnostic capabilities like IP Flow Verify, Next Hop, and Network Topology.

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