

Microsoft Azure Fundamentals



Course Outline:

EXAM NUMBER: AZ-900

Describe cloud computing

- Define cloud computing.
- Describe the shared responsibility model.
- Define cloud models, including public, private, and hybrid.
- Identify appropriate use cases for each cloud model.
- Describe the consumption-based model.
- Compare cloud pricing models.
- Describe serverless.

Describe the benefits of using cloud services

- Describe the benefits of high availability and scalability in the cloud.
- Describe the benefits of reliability and predictability in the cloud
- Describe the benefits of security and governance in the cloud
- Describe the benefits of manageability in the cloud

Describe cloud service types

- Describe infrastructure as a service (IaaS).
- Describe platform as a service (PaaS).
- Describe software as a service (SaaS).
- Identify appropriate use cases for each cloud service type (IaaS, PaaS, and SaaS).

Describe the core architectural components of Azure

- Describe Azure regions, region pairs, and sovereign regions.
- Describe availability zones.
- Describe Azure datacenters.
- Describe Azure resources and resource groups.
- Describe subscriptions.
- Describe management groups.
- Describe the hierarchy of resource groups, subscriptions, and management groups

Describe Azure compute and networking services

- Compare compute types, including containers, virtual machines, and functions.
- Describe virtual machine options, including Azure virtual machines, Azure Virtual Machine Scale Sets, availability sets, and Azure Virtual Desktop.
- Describe the resources required for virtual machines.
- Describe application hosting options, including web apps, containers, and virtual machines.
- Describe virtual networking, including the purpose of Azure virtual networks, Azure virtual subnets, peering, Azure DNS, Azure VPN Gateway, and ExpressRoute.
- Define public and private endpoints.

Describe Azure storage services

- Compare Azure Storage services.
- Describe storage tiers.
- Describe redundancy options.
- Describe storage account options and storage types.
- Identify options for moving files, including AzCopy, Azure Storage Explorer, and Azure File Sync.
- Describe migration options, including Azure Migrate and Azure Data Box.

Describe Azure identity, access, and security

- Describe directory services in Azure, including Microsoft Entra ID and Microsoft Entra Domain Services.
- Describe authentication methods in Azure, including single sign-on (SSO), multi-factor authentication (MFA), and passwordless.
- Describe external identities in Azure, including business-to-business (B2B) and business-to-customer (B2C).
- Describe Microsoft Entra Conditional Access.
- Describe Azure role-based access control (RBAC).
- Describe the concept of Zero Trust.
- Describe the purpose of the defense-in-depth model.
- Describe the purpose of Microsoft Defender for Cloud.

Describe cost management in Azure

- Describe factors that can affect costs in Azure.
- Compare the pricing calculator and the Total Cost of Ownership (TCO) Calculator.
- Describe cost management capabilities in Azure.
- Describe the purpose of tags.

Describe features and tools in Azure for governance and compliance

- Describe the purpose of Microsoft Purview in Azure.
- Describe the purpose of Azure Policy.
- Describe the purpose of resource locks.

Describe features and tools for managing and deploying Azure resources

- Describe the Azure portal.
- Describe Azure Cloud Shell, including Azure Command-Line Interface (CLI) and Azure PowerShell.
- Describe the purpose of Azure Arc.
- Describe infrastructure as code (IaC).
- Describe Azure Resource Manager (ARM) and ARM templates.

Describe monitoring tools in Azure

- Describe the purpose of Azure Advisor.
- Describe Azure Service Health.
- Describe Azure Monitor, including Log Analytics, Azure Monitor alerts, and Application Insights.