



Training Course AZ-900: Microsoft Azure Fundamentals

Overview: This course will provide foundational level knowledge on cloud concepts; core Azure services; and Azure management and governance features and tools.

Duration: 1 Day.

Audience Profile: This course is suitable for IT personnel who are just beginning to work with Azure. This audience wants to learn about our offerings and get hands-on experience with the product. This course primarily uses the Azure portal and command line interface to create resources and does not require scripting skills. Students on this course will gain confidence to take other role-based courses and certifications, such as Azure Administrator.

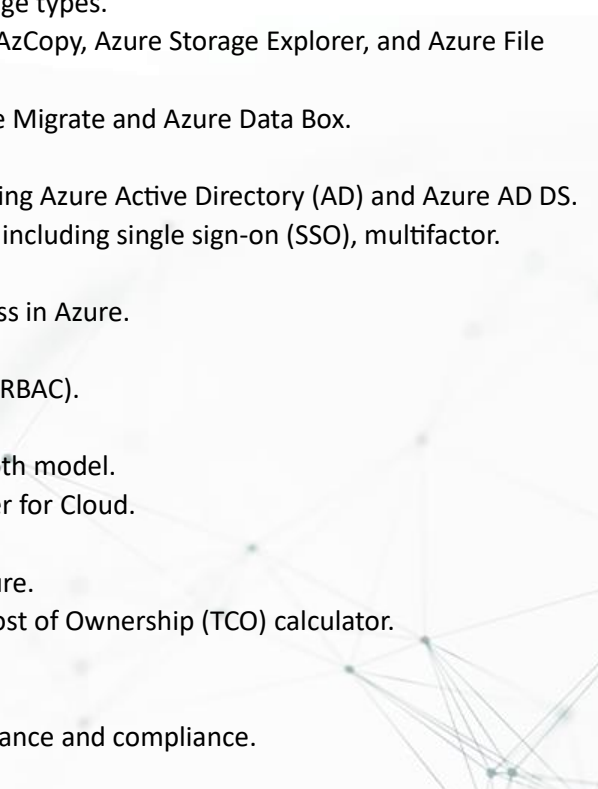
Certification: This course prepares you for the AZ-900: Azure Fundamentals.

Course Objectives: After completing this course, students will be able to:

- Describe cloud concepts.
- Describe Azure architecture and services.
- Describe Azure management and governance.
- Learn about the basics of cloud computing and Azure.
- Learn about Azure architecture and core services.
- Learn about some of the core management and governance tools in Azure.

Course Outline:

- 1- 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.
- 2- 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.
- 3- 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 (IaaS, PaaS, SaaS)
 - 4- 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.
 - 5- Describe Azure compute and networking services.
 - Compare compute types, including container instances, virtual machines, and functions.
 - Describe virtual machine (VM) options, including VMs, virtual machine scale sets, availability sets, Azure Virtual Desktop.
 - Describe resources required for virtual machines.
 - Describe application hosting options, including Azure Web Apps, containers, and virtual machines.
 - Describe virtual networking, including the purpose of Azure Virtual Networks, Azure virtual subnets, peering, Azure DNS, VPN Gateway, and ExpressRoute.
 - Define public and private endpoints.
 - 6- 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.
 - 7- Describe Azure identity, access, and security.
 - Describe directory services in Azure, including Azure Active Directory (AD) and Azure AD DS.
 - Describe authentication methods in Azure, including single sign-on (SSO), multifactor authentication (MFA), and passwordless.
 - Describe external identities and guest access in Azure.
 - Describe Azure AD 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.
 - 8- Describe cost management in Azure.
 - Describe factors that can affect costs in Azure.
 - Compare the Pricing calculator and Total Cost of Ownership (TCO) calculator.
 - Describe Azure Cost Management Tool.
 - Describe the purpose of tags.
 - 9- Describe features and tools in Azure for governance and compliance.
 - Describe the purpose of Azure Blueprints.
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- Describe the purpose of Azure Policy.
 - Describe the purpose of resource locks.
 - Describe the purpose of the Service Trust portal.
- 10- Describe features and tools for managing and deploying Azure resources.
- Describe Azure portal.
 - Describe Azure Cloud Shell, including Azure CLI and Azure PowerShell.
 - Describe the purpose of Azure Arc.
 - Describe Azure Resource Manager (ARM) and Azure ARM templates.
- 11- Describe monitoring tools in Azure.
- Describe the purpose of Azure Advisor.
 - Describe Azure Service Health.
 - Describe Azure Monitor, including Azure Log Analytics, Azure Monitor Alerts, and Application Insights.

