Study guide for Exam AZ-900: Microsoft Azure Fundamentals

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Purpose of this document

This study guide should help you understand what to expect on the exam and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

⌄⌃ **Expand table**

Useful links	Description
Review the skills measured as of January 23, 2024	This list represents the skills measured AFTER the date provided. Study this list if you plan to take the exam AFTER that date.
Review the skills measured prior to January 23, 2024	Study this list of skills if you take your exam PRIOR to the date provided.
Change log	You can go directly to the change log if you want to see the changes that will be made on the date provided.
How to earn the certification	Some certifications only require passing one exam, while others require passing multiple exams.
Your Microsoft Learn profile	Connecting your certification profile to Microsoft Learn allows you to schedule and renew exams and share and print certificates.
Exam scoring and score reports	A score of 700 or greater is required to pass.
Exam sandbox	You can explore the exam environment by visiting our exam sandbox.
Request accommodations	If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation.
Take a free Practice Assessment	Test your skills with practice questions to help you prepare for the exam.

Updates to the exam

Our exams are updated periodically to reflect skills that are required to perform a role. We have included two versions of the Skills Measured objectives depending on when you are taking the exam.

We always update the English language version of the exam first. Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. Although Microsoft makes every effort to update localized versions as noted, there may be times when the localized versions of an exam are not updated on this schedule. Other available languages are listed in the **Schedule Exam** section of the **Exam Details** webpage. If the exam isn't available in your preferred language, you can request an additional 30 minutes to complete the exam.

Note

The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

Note

Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured as of January 23, 2024

Audience profile

As a candidate for this exam, you're a technology professional who wants to demonstrate foundational knowledge of cloud concepts in general and Microsoft Azure in particular. This exam is a common starting point in a journey towards a career in Azure.

You can describe Azure architectural components and Azure services, such as:

- Compute

- Networking

- Storage

You can also describe features and tools to secure, govern, and administer Azure.

You should have skills and experience working with an area of IT, such as:

- Infrastructure management

- Database management

- Software development

Skills at a glance

- Describe cloud concepts (25–30%)

- Describe Azure architecture and services (35–40%)

- Describe Azure management and governance (30–35%)

Describe cloud concepts (25–30%)

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 Azure architecture and services (35–40%)

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 Azure management and governance (30–35%)

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

Study resources

We recommend that you train and get hands-on experience before you take the exam. We offer self-study options and classroom training as well as links to