

Zielbox Microsoft Azure Fundamentals – AZ-900



About this course

Course Description

This course provides foundational level knowledge on cloud concepts; core Azure services; security, privacy, compliance, and trust; and Azure pricing and support.

Level:

Beginner

Audience

The audience for this course is just beginning to learn about cloud computing and how Microsoft Azure provides that service. There are two versions of this course a one day version and a two day version. The content for both courses aligns to the AZ-900 exam objective domain.

Prerequisites

There are no prerequisites for this course, but students with some IT knowledge or experience will find the concepts easier to understand.

Expected learning

- The basics of cloud computing and Azure, and how to get started with Azure's subscriptions and accounts.
- The advantages of using cloud computing services, learning to differentiate between the categories and types of cloud computing, and how to examine the various concepts, resources, and terminology that are necessary to work with Azure architecture.
- The core services available with Microsoft Azure.
- The core solutions that encompass a wide array of tools and services from Microsoft Azure.
- The general security and network security features, and how you can use the various Azure services to help ensure that your cloud resources are safe, secure, and trusted.
- The identity, governance, privacy, and compliance features, and how Azure can help you secure access to cloud resources, what it means to build a cloud governance strategy, and how Azure adheres to common regulatory and compliance standards.

- The factors that influence cost, tools you can use to help estimate and manage your cloud spend, and how Azure's service-level agreements (SLAs) can impact your application design decisions.

Course agenda

Module 1 - Describe cloud computing

This module introduces you to cloud computing. It covers things such as cloud concepts, deployment models, and understanding shared responsibility in the cloud.

- Introduction to Microsoft Azure Fundamentals
- Introduction to cloud computing
- What is cloud computing
- Describe the shared responsibility model
- Define cloud models
- Describe the consumption-based model
- Knowledge check
- Summary

Module 2 - Describe the benefits of using cloud services

This module introduces you to the benefits cloud computing can offer you or your organization.

- Introduction
- 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
- Knowledge check
- Summary

Module 3 - Describe cloud service types

This module covers the different cloud service types and shares some of the use cases and benefits aligned with each service type.

- Introduction
- Describe Infrastructure as a Service
- Describe Platform as a Service
- Describe Software as a Service
- Knowledge check
- Summary

Module 4 - Describe the core architectural components of Azure

This module explains the basic infrastructure components of Microsoft Azure. You'll learn about the physical infrastructure, how resources are managed, and have a chance to create an Azure resource.

- Introduction
- What is Microsoft Azure
- Get started with Azure accounts
- Exercise - Explore the Learn sandbox
- Describe Azure physical infrastructure
- Describe Azure management infrastructure
- Exercise - Create an Azure resource
- Knowledge check
- Summary

Module 5 - Describe Azure compute and networking services

This module focuses on some of the computer services and networking services available within Azure.

- Introduction
- Describe Azure Virtual Machines
- Exercise - Create an Azure Virtual Machine
- Describe Azure Virtual Desktop
- Describe Azure Containers
- Describe Azure Functions
- Describe application hosting options
- Describe Azure Virtual Networking
- Exercise - Configure network access
- Describe Azure Virtual Private Networks
- Describe Azure ExpressRoute
- Describe Azure DNS
- Knowledge check
- Summary

Module 6 - Describe Azure storage services

This module introduces you to storage in Azure, including things such as different types of storage and how a distributed infrastructure can make your data more resilient.

- Introduction
- Describe Azure storage accounts
- Describe Azure storage redundancy
- Describe Azure storage services
- Exercise - Create a storage blob

- Identify Azure data migration options
- Identify Azure file movement options
- Knowledge check
- Summary

Module 7 - Describe Azure identity, access, and security

This module covers some of the authorization and authentication methods available with Azure.

- Introduction
- Describe Azure directory services
- Describe Azure authentication methods
- Describe Azure external identities
- Describe Azure conditional access
- Describe Azure role-based access control
- Describe zero trust model
- Describe defense-in-depth
- Describe Microsoft Defender for Cloud
- Knowledge check
- Summary

Module 8 - Describe cost management in Azure

This module explores methods to estimate, track, and manage costs in Azure.

- Introduction
- Describe factors that can affect costs in Azure
- Compare the Pricing and Total Cost of Ownership calculators
- Exercise - Estimate workload costs by using the Pricing calculator
- Exercise - Compare workload costs using the TCO calculator
- Describe the Azure Cost Management tool
- Describe the purpose of tags
- Knowledge check
- Summary

Module 9 - Describe features and tools in Azure for governance and compliance

This module introduces you to tools that can help with governance and compliance within Azure.

- Introduction
- Describe the purpose of Azure Blueprints
- Describe the purpose of Azure Policy
- Describe the purpose of resource locks
- Exercise - Configure a resource lock
- Describe the purpose of the Service Trust portal
- Knowledge check

- Summary

Module 10 - Describe features and tools for managing and deploying Azure resources

This module covers tools that help you manage your Azure and on-premises resources.

- Introduction
- Describe tools for interacting with Azure
- Describe the purpose of Azure Arc
- Describe Azure Resource Manager and Azure ARM templates
- Knowledge check
- Summary

Module 11 - Describe monitoring tools in Azure

This module covers tools that you can use to monitor your Azure environment.

- Introduction
- Describe the purpose of Azure Advisor
- Describe Azure Service Health
- Describe Azure Monitor
- Knowledge Check
- Summary

AZ-900 Certification Exam

The [AZ-900, Microsoft Azure Fundamentals](#), certification exam is designed for candidates looking to demonstrate foundational level knowledge of cloud services and how those services are provided with Microsoft Azure. The exam is intended for candidates with non-technical backgrounds, such as those involved in selling or purchasing cloud based solutions and services or who have some involvement with cloud based solutions and services, as well as those with a technical background who have a need to validate their foundational level knowledge around cloud services. Technical IT experience is not required however some general IT knowledge or experience would be beneficial.

This exam can be taken as an optional first step in learning about cloud services and how those concepts are exemplified by Microsoft Azure. It can be taken as a precursor to Microsoft Azure or Microsoft cloud services exams. While it would be a beneficial first step, validating foundational level knowledge, taking this exam is not a pre-requisite before taking any other Azure-based certifications.

1 The exam includes six study areas. The percentages indicate the relative weight of each area on the exam. The higher the percentage, the more questions the exam will contain. Be sure to read the exam page for specifics about what skills are covered in each area.

AZ-900 Study Areas	Weights
Describe cloud concepts	20-25%
Describe Core Azure Services	15-20%
Describe core solutions and management tools on Azure	10-15%
Describe general security and network security features	10-15%
Describe identity, governance, privacy, and compliance features	20-25%
Describe Azure cost management and Service Level Agreements	10-15%

- This course maps directly to the exam AZ-900 Microsoft Azure Fundamentals.
- ✓ This exam does not include a hands-on testing component.