



AZ900 - Version: 1

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# Microsoft Azure Fundamentals



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 **2 days Course**

## Description:

This course will provide foundational level knowledge of cloud services and how those services are provided with Microsoft Azure. The course can be taken as an optional first step in learning about cloud services and Microsoft Azure, before taking further Microsoft Azure or Microsoft cloud services courses.

The course will cover general cloud computing concepts as well as general cloud computing models and services such as Public, Private and Hybrid cloud and Infrastructure-as-a-Service (IaaS), Platform-as-a-Service(PaaS) and Software-as-a-Service (SaaS).

It will also cover some core Azure services and solutions, as well as key Azure pillar services concerning security, privacy, compliance and trust. It will finally cover pricing and support services available with Azure.

## Intended audience:

There are no pre-requisites for taking this course. It is targeted for anyone that wants to learn more about Microsoft Azure.

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## Objectives:

- Define cloud computing and its key advantages.
- Explain public, private, and hybrid cloud models.
- Explain IaaS, PaaS, and SaaS cloud services.
- Identify core Azure architectural components, such as regions, geographies, and resource groups.
- Identify usage cases for Azure core services and products, such as virtual machines and storage.
- Identify usage cases for Azure solutions, such as the Internet of Things and Machine Learning.
- Identify what Azure management tools are available such as Azure PowerShell and the CLI.
- Describe virtual network security connectivity options such as Network Security Groups.
- Describe Azure identity authentication and authorization options.
- Describe usage cases for the Security Center, Key vault, threat and information protection options.
- Describe Azure policies and role-based access control.
- Describe usage cases for Azure Monitor and Azure Service Health.
- Describe privacy, compliance, and data protection standards.
- Use an Azure subscription.
- Plan and manage costs.
- Describe Azure SLAs.
- Explain Azure service lifecycles.

## Topics:

### Module 1: Cloud Concepts

- Why Cloud Services?
- Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS)
- Public, Private, and Hybrid cloud models

### Module 2: Core Azure Services



- Core Azure architectural components
- Core Azure Services and Products
- Azure Solutions
- Azure management tools
- Lab : Walkthrough: Create a virtual machine
- Lab : Walkthrough: Deploy Azure container instances
- Lab : Walkthrough: Create a virtual network
- Lab : Walkthrough: Create blob storage
- Lab : Walkthrough: Create a SQL database
- Lab : Walkthrough: Implement an Azure IoT Hub
- Lab : Walkthrough: Implement Azure Functions
- Lab : Walkthrough: Create a web app
- Lab : Walkthrough: Create a VM with a Template
- Lab : Walkthrough: Create a VM with PowerShell
- Lab : Walkthrough: Create a VM with CLI

## Module 3: Security, Privacy, Compliance and Trust

- Securing network connectivity in Azure
- Core Azure Identity services
- Security tools and features
- Azure governance methodologies
- Monitoring and Reporting in Azure
- Privacy, Compliance and Data Protection standards in Azure
- Lab : Walkthrough: Secure network traffic
- Lab : Walkthrough: Implement Azure key vault
- Lab : Walkthrough: Create an Azure Policy
- Lab : Walkthrough: Manage access with RBAC
- Lab : Walkthrough: Manage resource locks
- Lab : Walkthrough: Implement resource tagging
- Lab : Walkthrough: Exploring the Trust Center

## Module 4: Azure Pricing and Support

- Azure subscriptions
- Planning and managing costs



- Support options available with Azure
- Service lifecycle in Azure
- Lab : Walkthrough: Use the Azure Pricing Calculator
- Lab : Walkthrough: Use the Azure TCO Calculator
- Lab : Walkthrough: Calculate composite SLAs
- Lab : Walkthrough: Access Azure Preview features