

# Cloud fundamentals in Azure

# Module 1 | Could and Azure Fundamentals



## Azure fundamentals

12000 XP

9 hr 48 min • Learning Path • 12 Modules

Beginner Developer Solutions Architect Administrator AI Engineer Business Analyst Business User Data Engineer  
Data Scientist Azure Azure Portal Azure Resource Manager Storage Virtual Machines

Interested in the cloud, but aren't quite sure what it can do for you? This path is the place to start.

In this learning path, you will:

- Learn cloud concepts such as High Availability, Scalability, Elasticity, Agility, Fault Tolerance, and Disaster Recovery
- Understand the benefits of cloud computing in Azure and how it can save you time and money
- Compare and contrast basic strategies for transitioning to the Azure cloud
- Explore the breadth of services available in Azure including compute, network, storage and security

Once you complete this learning path, you will have the necessary knowledge to take the [AZ900 Microsoft Azure Fundamentals Exam](#).

### Prerequisites

None



# Module 1 | Principle of Cloud Computing



1100 XP

## Cloud Concepts - Principles of cloud computing

1 hr 2 min • Module • 10 Units

★★★★★ 4.8 (70,079)

Beginner

Administrator

Business Analyst

Business User

Developer

Solutions Architect

Azure

Azure Portal

Azure Resource Manager

Explore the core concepts of cloud computing and how it can help your business.

In this module, you will:

- Explore common cloud computing services
- Explore the benefits of cloud computing
- Decide which cloud deployment model is best for you



# Module 1 | Creating your azure account



800 XP

## Create an Azure account

39 min • Module • 7 Units

★★★★★ 4.7 (101,052)

Beginner

Administrator

Solutions Architect

Developer

Security Engineer

Student

Azure

Azure Portal

The first step to using Azure is to sign up. You may sign up directly through Azure.com, with the help of a Microsoft representative, or through a partner. If you're new to Azure, you may sign up for an Azure free account to start exploring with \$200 USD free credit and free services.

In this module, you will:

- Learn about Azure sign-up options including Azure free account.
- Create an Azure free account.
- Understand how billing works in Azure.
- Learn about different support options.



# Module 1 | Could and Azure Fundamentals



## Core Cloud Services - Introduction to Azure

36 min • Module • 8 Units

★★★★★ 4.8 (32,683)

Beginner

Administrator

Developer

Solutions Architect

Azure

CLIs

1400 XP

Get started with Azure by creating and configuring your first website in the cloud.

In this module, you will:

- Learn what Microsoft Azure is and how it relates to cloud computing
- Deploy a website using Azure App Service
- Learn how to scale up your website to give you more compute power
- Use Azure Cloud Shell to interact with your website



# Module 1 | Could and Azure Fundamentals



1000 XP

## Core Cloud Services - Azure architecture and service guarantees

45 min • Module • 9 Units

★★★★★ 4.7 (54,140)

Beginner

Administrator

Developer

Solutions Architect

Student

Azure


Azure provides a global network of secure datacenters you can deploy your services into. Learn about the physical architecture of Azure, how redundancy is provided, and what service guarantees Microsoft provides.

In this module, you will:

- Explore the physical structure of Azure infrastructure
- Understand the service level agreements provided by Azure
- Learn how to provide your own service level agreements for your apps



# Week 1 | Could and Azure Fundamentals



1000 XP

## Core Cloud Services - Manage services with the Azure portal

1 hr 13 min • Module • 9 Units

★★★★★ 4.7 (39,781)

Beginner Administrator Solutions Architect Developer Student Azure Azure Portal


Tour the Azure portal features and services, and customize your portal.

In this module, you will:

- Learn about Azure management options
- Navigate the Azure portal
- Customize the dashboard
- Learn how to opt in to preview services and features



# Week 1 | Could and Azure Fundamentals



800 XP

## Core Cloud Services - Azure compute options

38 min • Module • 7 Units

★★★★★ 4.7 (46,465)

Beginner

Developer

Solutions Architect

Administrator

Security Engineer

Student

Azure

Virtual Machines

App Service

Container Instances

Kubernetes Service

Functions

Logic Apps

Review the Azure compute services and explore how they can solve common business needs.

In this module, you will:

- Identify Azure compute options
- Select compute options that will solve your specific business needs





# Module 1 | Could and Azure Fundamentals



700 XP

## Core Cloud Services - Azure data storage options

25 min • Module • 6 Units

★★★★★ 4.7 (41,194)

Beginner

Developer

Data Engineer

Solutions Architect

Student

Azure

Storage

SQL Database

Cosmos DB

Data Lake

Files


In this module, we'll explore the benefits of Azure data storage versus on-premises storage.

In this module, you will:

- Survey the data storage options in Azure
- Explore how Azure can meet your business demands for storing and analyzing data
- Compare Azure data options with on-premises storage



# Module 1 | Could and Azure Fundamentals



800 XP

## Core Cloud Services - Azure networking options

28 min • Module • 5 Units

★★★★★ 4.8 (33,238)

Beginner

Developer

Administrator

Solutions Architect

Student

Azure

Virtual Network

Traffic Manager

Load Balancer


Running your app or service in the cloud requires a fast and secure network. Learn some of the Azure networking basics and how Azure networking helps improve resiliency and reduce latency.

In this module, you will:

- Learn how virtual networking helps you isolate network and compute resources
- Learn how Azure Load Balancer helps improve resiliency, or the ability to recover when your service goes down
- Learn how Traffic Manager can route traffic to different endpoints, including the endpoint with the lowest latency to the user



# Module 1 | Could and Azure Fundamentals



1200 XP

## Security, responsibility, and trust in Azure

1 hr 16 min • Module • 11 Units

★★★★★ 4.7 (34,196)

Beginner Developer Administrator Solutions Architect Security Engineer Student Azure Azure Active Directory

Discuss the basic concepts for protecting your infrastructure and data when you work in the cloud. Understand what responsibilities are yours and what Azure takes care of for you.

In this module, you will:

- Learn how security responsibility is shared with Azure
- Learn how identity management provides protection, even outside your network
- Learn how encryption capabilities built into Azure can protect your data
- Learn how to protect your network and virtual networks
- Learn about advanced services and features Azure provides to keep your services and data secure and safe



# Module 1 | Could and Azure Fundamentals



900 XP

## Apply and monitor infrastructure standards with Azure Policy

46 min • Module • 8 Units

★★★★☆ 4.6 (28,625)

Beginner

Developer

Administrator

Solutions Architect

Security Engineer

Student

Azure


Learn about governance and management in Azure services.

In this module, you will:

- Apply policies to control and audit resource creation
- Learn how role-based security can fine-tune access to your resources
- Understand Microsoft's policies and privacy guarantees
- Learn how to monitor your resources



# Module 1 | Could and Azure Fundamentals

900 XP

## Control and organize Azure resources with Azure Resource Manager

46 min • Module • 8 Units

★★★★★ 4.7 (30,420)

Intermediate Solutions Architect Administrator Student Azure Azure Resource Manager


Use Azure Resource Manager to organize resources, enforce standards, and protect critical assets from deletion.

In this module, you will:

- Use resource groups to organize Azure resources
- Use tags to organize resources
- Apply policies to enforce standards in your Azure environments
- Use resource locks to protect critical Azure resources from accidental deletion



# Module 1 | Could and Azure Fundamentals



1400 XP

## Predict costs and optimize spending for Azure

1 hr 14 min • Module • 9 Units

★★★★★ 4.7 (32,093)

Beginner Developer Solutions Architect Administrator Student Azure Azure Portal Cost Management

Cost is one of the most important aspects of the cloud and can have a massive impact on your business. Azure has several tools available to help you get a better understanding of cloud spend and some best practices that you can leverage to help you save money.

In this module, you will:

- Learn the different options you have to purchase Azure services
- Estimate costs with the Azure pricing calculator
- Predict and optimize costs with Azure Cost Management and Azure Advisor
- Apply best practices for saving on infrastructure costs
- Apply best practices for saving on licensing costs



# Module 1 | Could and Azure Fundamentals



800 XP

## Introduction to Azure Machine Learning service

35 min • Module • 7 Units

★★★★☆ 4.6 (666)

Beginner

Data Scientist

Azure

Machine Learning Service

Introduction to Azure Machine Learning service

In this module, you will:

- Learn the difference between Azure Machine Learning Studio and Azure Machine Learning service
- See how Azure Machine Learning service fits into the data science process
- Learn the concepts related to an Azure Machine Learning service experiment
- Explore the Azure Machine Learning service pipeline
- Train a model using Azure Machine Learning service

