



Introduction to Microsoft Azure for IT Professionals

Course Description

This course provides the underlying knowledge required by ITPros/Devs who will be evaluating Microsoft Azure, whether they are administrators, developers, or database administrators. This course introduces students to the principles of cloud computing. Students will become familiar with how these principles have been implemented in Microsoft Azure. In addition, this course explains how to implement the core Azure infrastructure, consisting of virtual networks and storage. With this foundation, students will be able to create the most common Azure services, including Azure Virtual Machines, Web Apps, and Azure SQL Database. The students will also learn about container-based Azure services and the most prominent examples of serverless computing. The course concludes by describing features of Azure Active Directory (Azure AD).

Outline

Module 1: Getting Started with Microsoft Azure

This module introduces students to cloud services and the various Azure services. It describes how to use the Azure portal to access and manage Azure services, and to manage Azure subscription and billing.

Lessons

- What is cloud computing?
- What is Azure?
- Managing Azure
- Subscription management, support, and billing

Lab : Using the Azure portals

- Customizing the Azure portal interface

- Viewing billing, usage, and quotas data

After completing this module, students will be able to:

- Describe cloud computing.
- Describe Azure.
- Manage Azure.
- Describe subscription management, support, and billing.

Module 2: Microsoft Azure management tools

This module explains Azure PowerShell and its use in managing Azure subscriptions. It also describes the Azure Software Development Kit (SDK) and the Azure cross-platform command-line interface, and explains their benefits and uses.

Lessons

- What is Azure PowerShell
- The Azure SDK and the Azure CLI

Lab : Using Microsoft Azure management tools

- Using the Azure PowerShell modules
- Use the Azure CLI

After completing this module, students will be able to:

- Describe Azure PowerShell.
- Describe the Azure SDK and the Azure CLI.

Module 3: Virtual machines in Microsoft Azure

This module explains how to use Azure to deploy virtual machines. It also explains the highly available and scalable configuration of Azure virtual machines, and the management of virtual machine disks by using Azure.

Lessons

- Creating and configuring VMs
- Configure disks

Lab : Creating a VM in Azure

- Create a VM from the Azure Portal by using an Azure Marketplace image
- Verify the functionality of the VM
- Configure storage of a VM

After completing this module, students will be able to:

- Create and configure VMs.
- Configure disks.

Module 4: Web Apps and cloud services

This module explains how to create, configure, and monitor Web apps by using Azure. It also describes the creation and deployment of Cloud Services on Azure.

Lessons

- Creating and configuring web apps
- Deploying and monitoring web apps
- Creating and deploying PaaS cloud services

Lab : Web Apps and cloud services

- Creating and configuring a WordPress web app
- Create a cloud service

After completing this module, students will be able to:

- Create and configure web apps.
- Deploy and monitor web apps.
- Create and deploy PaaS cloud services.

Module 5: Creating and configuring virtual networks

This module explains Azure virtual networks and how to create them. It also covers variety of virtual network components, focusing in particular on Azure load balancers.

Lessons

- Getting started with virtual networks
- Creating a virtual network
- Getting started with Azure Load Balancers

Lab : Create a virtual network

- Creating a virtual network
- Verifying virtual network functionality

After completing this module, students will be able to:

- Explain virtual networks.
- Create a virtual network.
- Describe Azure Load Balancers.

Module 6: Cloud storage

This module explains the use of cloud storage and its benefits. It also explains how to create, manage, and configure cloud storage in Azure.

Lessons

- Understanding cloud storage
- Create and manage storage

Lab : Configure Azure Storage

- Create an Azure Storage account
- Create and manage blobs

After completing this module, students will be able to:

- Understand cloud storage.
- Create and manage storage.

Module 7: Microsoft Azure databases

This module explains the options available for storing relational data in Azure. It also explains how to use Microsoft Azure SQL Database to create, configure, and manage SQL databases in Azure.

Lessons

- Understanding options for relational database deployment
- Creating and connecting to Azure SQL databases

Lab : Creating a SQL Database in Azure

- Create a new Azure SQL database in Azure and configure SQL Server firewall rules
- Manage content of an Azure SQL database by using SQL Server Management Studio

After completing this module, students will be able to:

- Understand relational database deployment options.
- Create and connect to Azure SQL Databases.

Module 8: Creating and managing Azure AD

This module explains how to use Azure AD and Azure Multi-Factor Authentication to enhance security. It explains how to create users, domains, and tenants in Azure AD, and how to use Multi-Factor Authentication and single sign-on (SSO).

Lessons

- Overview of Azure AD
- Manage Azure AD authentication

Lab : Create users in Azure Active Directory tenants

- Create users in Azure AD
- Create a new Azure AD Tenant and a custom DNS domain

After completing this module, students will be able to:

- Describe Azure AD.
 - Manage Azure AD authentication.
-

Audience

This course is intended for individuals who want to evaluate deploying, configuring, and administering services and VMs using Azure, including:

- Developers who want to evaluate creating Azure solutions.
 - Windows Server administrators who are looking to evaluate the migration of on-premises Active Directory services and roles to the cloud.
 - IT professionals who want to evaluate the use of Azure to host web sites and mobile app back-end services.
 - Database administrators who want to evaluate the use of Azure to host SQL databases.
-

Prerequisites

Before attending this course, students must have a background in IT.

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- Understanding of websites.
- A basic understanding of virtualization.

- A basic understanding of Active Directory concepts, including domains, users, and domain controllers.
 - A basic understanding of database concepts including tables and simple queries.
-

What You Will Learn

After completing this course, students will be able to:

- Describe cloud computing, Azure, and Azure subscriptions.
- Describe and create Azure Web Apps.
- Create and configure VMs in Microsoft Azure.
- Create an Azure virtual network.
- Describe Azure storage.
- Describe and deploy databases in Azure.
- Describe Azure AD.