

Module 2

Microsoft Azure management tools

Module Overview

- What is Azure PowerShell?
- Visual Studio Tools for Azure and Azure CLI

Lesson 1: What is Azure PowerShell?

- Introduction to PowerShell
- Introduction to Azure PowerShell
- Managing Azure subscriptions by using Azure PowerShell
- Demonstration: Installing and using Azure PowerShell

Introduction to PowerShell

- Available in two editions:
 - Windows PowerShell – up to version 5.1
 - PowerShell Core – starting with version 6.0
- Available within host applications, including:
 - The Windows PowerShell console (powershell.exe)
 - The PowerShell console (pwsh.exe/pwsh)
 - The Windows PowerShell ISE (powershell_ise.exe)
 - Visual Studio Code (PowerShell extension)
 - Visual Studio (PowerShell Tools for Visual Studio)
- Extensible through the use of modules and cmdlets
- Modules are automatically loaded if located in **\$env:PSModulePath**
- Cmdlets follow the verb-noun format
 - Are discoverable through the **Get-Command** cmdlet
 - Are described through the **Get-Help** cmdlet

Introduction to Azure PowerShell

The Azure PowerShell modules are:

- Grouped according to their functionality:
 - Azure Resource Manager
 - Azure Service Management
 - Azure Active Directory
 - Azure Rights Management
 - Azure Service Fabric
- Installed by using:
 - PowerShellGet (Windows, Linux, macOS)
 - Web PI (Windows only)
 - MSI packages (Windows only)

Managing Azure subscriptions by using Azure PowerShell

- Azure Resource Manager:
 - Authenticate
 - **Connect-AzureRmAccount**
 - Select the target Azure subscription (if more than one exists):
 - **Get-AzureRmSubscription**
 - **Select-AzureRmSubscription**
- Service Management (classic):
 - Authenticate
 - **Add-AzureAccount**
 - Select the target Azure subscription (if more than one exists):
 - **Get-AzureSubscription**
 - **Select-AzureSubscription**

Demonstration: Installing and using Azure PowerShell

In this demonstration, you will see how to:

- Install the Azure PowerShell modules
- Sign in from a local Azure PowerShell session to your Azure subscription
- Use Azure PowerShell cmdlets
- Use Azure PowerShell in Cloud Shell

Lesson 2: Visual Studio Tools for Azure and Azure CLI

- What are Visual Studio Tools for Azure?
- Introduction to the Azure CLI
- Demonstration: Installing and using the Azure CLI

What are Visual Studio Tools for Azure?

The Azure .NET SDK includes a number of tools:

- ASP.NET and Web Tools for Visual Studio
- Azure Tools for Visual Studio
- Azure Authoring Tools
- Azure Emulator and Azure Storage Emulator
- Azure Storage Tools
- Azure Libraries for .NET
- Azure Resource Manager Tools
- Azure Diagnostics
- Docker Tools for Visual Studio
- Azure Service Fabric Tools
- Azure HDInsight Tools for Visual Studio
- Azure Data Factory Tools

Introduction to the Azure CLI

- Command-line shell:
 - Available in two versions:
 - Azure CLI 1.0 – supports ARM and classic – **azure** commands
 - Azure CLI 2.0 – supports ARM only – **az** commands
 - Can be installed on Windows, Linux, and macOS
 - Integrates with Linux shell scripting tools
 - Has an installation process that depends on the version and the operating system
- To authenticate:
 - **azure login** (v1) or **az login** (v2)
 - <http://aka.ms/devicelogin>
- To switch modes (v1 only), run:
 - **azure config mode arm**
 - **azure config mode asm**

Demonstration: Installing and using the Azure CLI

In this demonstration, you will see how to:

- Install the Azure CLI
- Use the locally installed Azure CLI
- Use Azure CLI in Cloud Shell

Lab: Using Microsoft Azure management tools

- Exercise 1: Using the Azure PowerShell modules
- Exercise 2: Using the Azure CLI

Logon Information

Virtual machine:

10979F-MIA-CL1

User name:

Admin

Password:

Pa55w.rd

Estimated Time: 30 minutes

Lab Scenario

To prepare for the deployment of Azure services, you want to become familiar with the primary Azure management tools. Most of your on-premises administrative tasks are automated by means of PowerShell scripts and Linux shell scripts. You have decided to test the use of Azure PowerShell and the Azure CLI.

Lab Review

You want to use the Azure CLI to manage classic resources. What must you do?

Module Review and Takeaways

- Review Question