



Module 2: Administration

2. Administration

Lessons:

✓ Administration in Windows Server

✓ Administration in Azure

GUI

Server Manager | Admin Center
WAC

Command line

CLI

PowerShell (PS)

Azure Portal

PS-Module Az

Azure CLI
az vm list

ARM
API
↕
Postman

ARM Template

json
↑

Bicep (Lang)

VS Code

New:
(Terraform)
IBM

Verb

Noun

Get - Coffee

Get - Disk

Get - vm

Get - Az vm

09.07.2024

Lesson 1: Windows Server Administrations

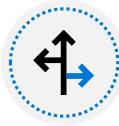


Management Console .msc



Overview Server Manager

GUI



Overview Windows Server Admin Center

HTML

WAC



Overview of Server Administration with PowerShell

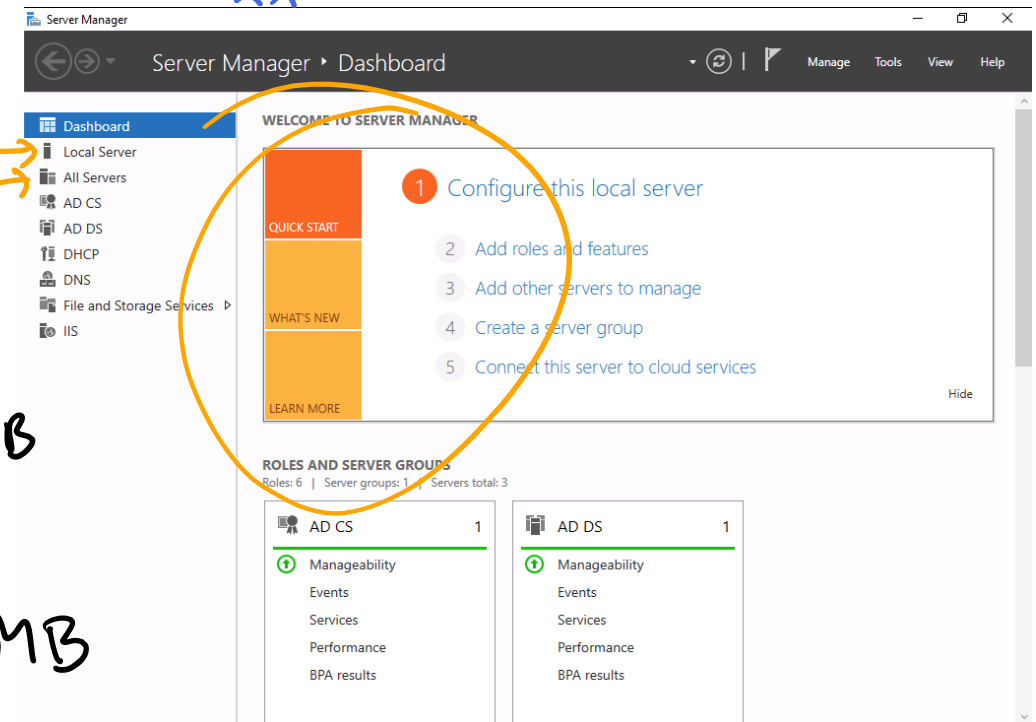
Windows Server Administrations Basics

Overview Server Manager (1 of 2)

- Server Manager initially opens to the dashboard, which provides quick access to:
 - Add roles and features
 - Add other servers to manage
 - Create a server group
 - Connect this server to cloud services

Windows Server (mit GUI) 15 GB
Windows Server (Core) 8 GB
Nano Server 600 MB
→ Docker Container

Windows Server (GUI)
Win 10
~





Overview Server Manager (2 of 2)

- Server Manager allows server administrators to:
 - Manage the local server and remotely manage multiple servers
 - Configure the local server
 - Get basic information about installed hardware
 - Query event logs
 - Monitor status of services
 - Perform best practice analysis
 - Check performance monitors

Overview of Server Administration with PowerShell (1 of 2)

- Windows PowerShell is a command line shell and scripting language that allows task automation and configuration management
- Windows PowerShell cmdlets execute at a Windows PowerShell command prompt or combine into Windows PowerShell scripts

Jeff Snover
2008 PS 2.0 Boxed



Windows PowerShell

5.1

Overview of Server Administration with PowerShell (2 of 2)

- Cmdlets:

- Are small commands that perform specific functions
- Can be combined to perform multiple tasks
- Can be piped together to perform multiple operations

- Modules:

- Cmdlets specific to a product are packaged together and installed as modules
- Some are installed with the product and some need to be added manually

Get-VM

Get-AzVM
New-AzVM

pipeline

Remove-AzVM
-Force

Lesson 3: Azure Portal Administration



Azure Portal Administration



Use the Azure Portal



Use Azure Cloud Shell



Use Azure PowerShell

Module AZ



Use Azure CLI

Binary AZ

Use the Azure Portal

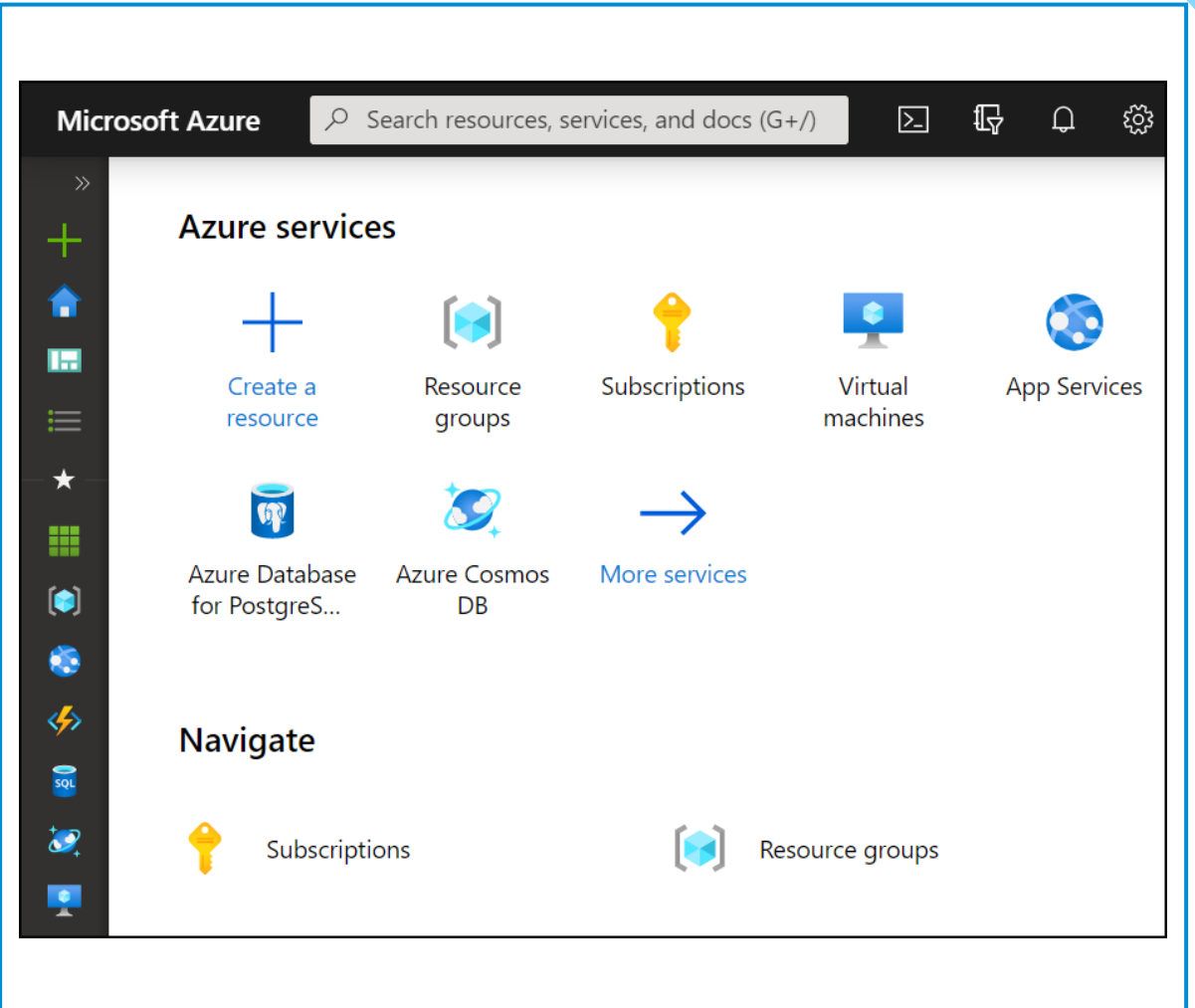
Search resources, services, and docs

Manage resources

Create customized dashboards and favorites

Access the Cloud Shell

Receive notifications



Use Azure Cloud Shell

Interactive, browser-accessible shell

Offers either Bash or PowerShell

Is temporary and provided on a per-session, per-user basis


Requires a resource group, storage account, and Azure File share

Authenticates automatically

Integrated graphical text editor

Is assigned one machine per user account

Times out after 20 minutes



Welcome to Azure Cloud Shell

Bash | PowerShell

Use Azure PowerShell

```
New-AzVm -ResourceGroupName "CrmTestingResourceGroup" -Name "CrmUnitTests" -Image "UbuntuLTS"
```

Handwritten notes: Red circles around the backslashes in the command. "Back Tic" written next to the first circle. "K?" written next to the second circle. "Back Slash" written at the bottom right of the slide.

- Connect to your Azure subscription and manage resources
- Adds the Azure-specific commands
- Available inside a browser via the Azure Cloud Shell
- Available as a local installation on Linux, macOS, or Windows
- Has an interactive and a scripting mode

Use Azure CLI

```
az vm restart -g MyResourceGroup -n MyVm
```

- Cross-platform command-line program
- Runs on Linux, macOS, and Windows
- Can be used interactively or through scripts
- Commands are structured in *_groups_* and *_subgroups_*
- Use *find* to locate commands
- Use *--help* for more detailed information

Review Resource Manager Benefits

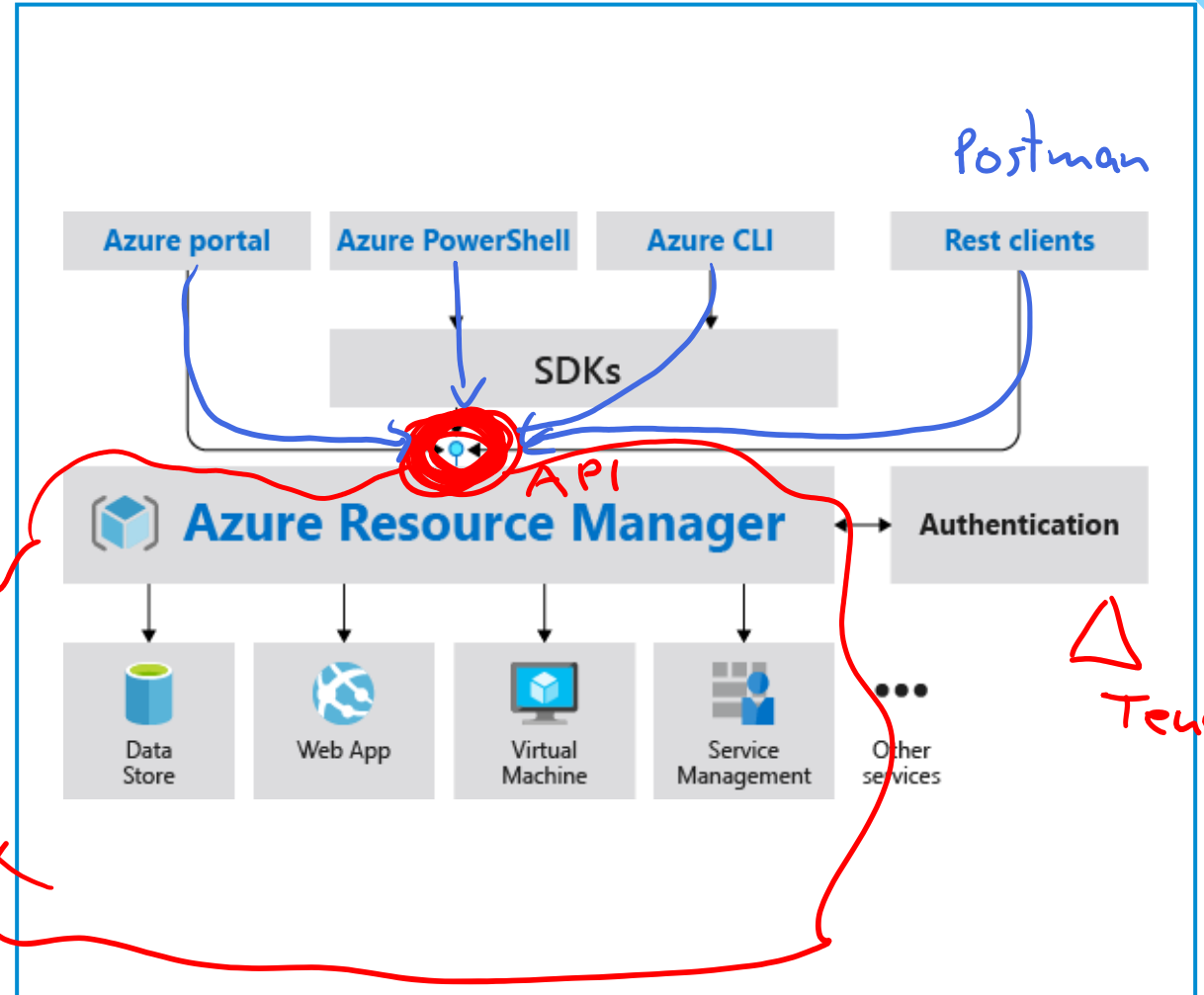
Provides a consistent management layer

Enables you to work with the resources in your solution as a group

Deploy, update, or delete in a single, coordinated operation

Provides security, auditing, and tagging features

Choose the tools and APIs that work best for you



The End