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# Automate Azure resources at scale with Azure PowerShell



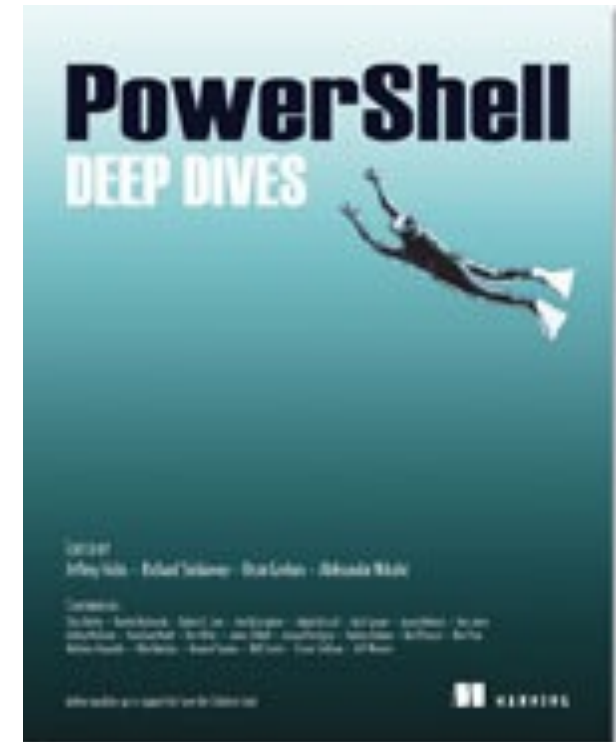
SQLSATURDAY

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# Get-Help –Name 'about\_Presenter'

- Mike F. Robbins
- Lead docs writer for Azure PowerShell at Microsoft



# Introduction to Azure PowerShell

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- Azure PowerShell
- The Az PowerShell module
- The AzPreview PowerShell module
- The AzureRM PowerShell module
- The Azure PowerShell module
- Azure-related PowerShell modules (not part of Azure PowerShell)
  - Azure Stack, Entra, Microsoft Graph, MSOnline, AzureAD



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The diagram is a blue triangle with white text and lines. The text is arranged in a hierarchical manner, with the top section being the smallest and the bottom section being the largest. The text is as follows:

- Top Section:**
  - DataLakeStore
  - ContainerRegistry
- Middle Section:**
  - DataProtection
  - App
  - DataMigration
  - NetAppFiles
  - ServiceFabric
  - DesktopVirtualization
- Bottom Section:**
  - Storage
  - Monitor
  - RedisCache
  - Websites

A word cloud of Microsoft Azure services on a blue background with a white geometric shape. The services listed include: Compute, Synapse, Recovery Services, Resources, Tls, Batch, DevCenter, IotHub, ServiceBus, Purview, EventHub, Mysql, DataBoxEdge, Operational Insights, KeyVault, Security, ApiManagement, HDInsight, PostgreSQL, LogicApp, SignalR, MobileNetwork, SpringCloud, DatalakeAnalytics, DataFactory, Automation, Accounts, SecurityInsights, Peering, Storage, Virtual Machines, FrontDoor, EventGrid, Kusto, Cdn, Grid, AnalysisServices, DeviceProvisioningServices, Bds, Ws, LabServices, Workloads, StorageCache, ConnectedNetwork, ApplicationInsights, CognitiveServices, SignalR, and HDInsight.

# Azure PowerShell Support lifecycle

- Follows Semantic versioning (major.minor.path)
  - Major versions – Breaking changes
  - Minor versions – Backwards compatible updates
  - Patch versions – Security fixes
- Module version types
  - Generally available (GA)
  - Preview
  - Feature preview
- Az versus AzPreview module





# Azure PowerShell Support lifecycle (more)

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- Release cadence
- Support of releases
  - Standard term support (STS)
  - Long term support (LTS)
- Breaking changes
- Supported environments





# Getting Started with Azure PowerShell

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- Prerequisites
  - An Azure subscription
- Options for using Azure PowerShell
  - Azure Cloud Shell
    - Web browser
    - Windows Terminal
  - Local installation
    - A Windows, Linux, or macOS system
    - PowerShell 7 (Windows PowerShell 5.1 is also supported)
  - Docker container



# Authentication

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- Interactive
  - Connect-AzAccount
  - New login experience
  - Configure default subscription for login
  - Web Account Manager (WAM)
  - Browser based authentication
  - Device code authentication
- Noninteractive
  - Service principal
  - Managed identity






# Start-Process 'Demo'

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- Create resources interactively
- Create resources at scale
- Demo Code: [github.com/mikefrobbins/Presentations](https://github.com/mikefrobbins/Presentations)





# Get-Contact –Identity 'Presenter'

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- Blog: [mikefrobbins.com](https://mikefrobbins.com)
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