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**Learning Style: On Demand**

**Provider:**

**Difficulty: Advanced**

**Course Duration: 15 Hours**

## **Automating Administration with PowerShell (AZ-040T00)**



### **About this Course:**

This course provides students with the fundamental knowledge and skills to use PowerShell for administering and automating administration of Windows servers. This course provides students the skills to identify and build the command they

require to perform a specific task. In addition, students learn how to build scripts to accomplish advanced tasks such as automating repetitive tasks and generating reports. This course provides prerequisite skills supporting a broad range of Microsoft products, including Windows Server, Windows Client, Microsoft Azure, and Microsoft 365. In keeping with that goal, this course will not focus on any one of those products, although Windows Server, which is the common platform for all of those products, will serve as the example for the techniques this course teaches.

## **Course Objectives:**

- Describe the functionality of Windows PowerShell and use it to run and find basic commands.
- Identify and run cmdlets for local system administration.
- Work with the Windows PowerShell pipeline.
- Use PSProviders and PSDrives to work with other forms of storage.
- Query system information by using WMI and CIM.
- Work with variables, arrays, and hash tables.
- Create basic scripts in Windows PowerShell.
- Administer remote computers with Windows PowerShell.
- Manage Azure resources with PowerShell.
- Manage Microsoft 365 services with PowerShell.
- Use background jobs and scheduled jobs.

## **Audience:**

This course is intended for IT Professionals who are already experienced in general Windows Server, Windows client, Azure, and Microsoft 365 administration, and who want to learn more about using Windows PowerShell for administration. No prior experience with any version of PowerShell or any scripting language is assumed. This course is also suitable for IT Professionals already experienced in server administration, including Microsoft Exchange Server, Microsoft SharePoint Server, and Microsoft SQL Server.

## **Prerequisites:**

- Experience with Windows networking technologies and implementation.
- Experience with Windows Server administration, maintenance, and troubleshooting.

## **Course Outline:**

This Course Includes:

- Course Introduction
- Module 1: Getting Started with Windows PowerShell
- Module 2: Windows PowerShell for Local Systems Administration
- Module 3: Working with the Windows PowerShell Pipeline
- Module 4: Using PSProviders and PSDrives
- Module 5: Querying Management Information by Using CIM and WMI

- Module 6: Working with Variables, Arrays, and Hash Tables
- Module 7: Windows PowerShell Scripting
- Module 8: Administering Remote Computers with Windows PowerShell
- Module 9: Managing Azure Resources with PowerShell
- Module 10: Managing Microsoft 365 Services with PowerShell
- Module 11: Using Background Jobs and Scheduled Jobs

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