

Advanced Automated Administration with Windows PowerShell

Course 55318

3 Days

Instructor-led, Hands on

Course Information

This three-day course teaches students how to automate administrative tasks using PowerShell. Students will learn crucial scripting skills such as creating advanced functions, writing controller scripts, and handling script errors. Candidates will learn how to use PowerShell when working with Microsoft Azure, SQL Server, Active Directory, IIS, Windows PowerShell Workflow, .NET resources, the REST API and XML, CSV & JSON formatted data files.

Course Objectives

At course completion, students will learn the following:

- Create advanced functions.
- Use Microsoft .NET Framework and REST API in Windows PowerShell.
- Handle script errors.
- Use XML, JSON, and custom formatted data.
- Manage Microsoft Azure resources
- Analyze and debug scripts
- Understand Windows PowerShell workflow

Prerequisites

Prior to attending, students should be comfortable with all of the topics covered in the following course:

- AZ-040 - Automating Administration with PowerShell

Course Outline

Module 1: Creating advanced functions

- Converting a command into an advanced function
- Creating a script module
- Defining parameter attributes and input validation
- Writing functions that accept pipeline input
- Producing complex pipeline output
- Using comment-based Help

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- Using Whatif and Confirm parameters

Module 2: Using Microsoft .NET Framework and REST API in Windows PowerShell

- Using .NET Framework in PowerShell
- Using REST API in PowerShell

Module 3: Writing controller scripts

- Understanding controller scripts
- Writing controller scripts with a user interface
- Writing controller scripts that create reports

Module 4: Handling script errors

- Understanding error handling
- Handling errors in a script

Module 5: Using XML, JSON, and custom-formatted data

- Working with XML formatted data
- Working with JSON formatted data
- Working with custom-formatted data

Module 6: Enhancing server management with Desired State Configuration and Just Enough Administration

- Implementing the Desired State Configuration
- Implementing Just Enough Administration

Module 7: Analyzing and debugging scripts

- Debugging in Windows PowerShell
- Analyzing and debugging an existing script

Module 8: Understanding Windows PowerShell Workflow

- Understanding Windows PowerShell Workflows
- Running Windows PowerShell Workflows