# Windows PowerShell: Foundation Skills

# WorkshopPLUS

**Duration**: 4 Days [Remote / Onsite] **Difficulty Level**: 300 - Advanced

# **Description**

Windows PowerShell: Foundation Skills WorkshopPLUS engagement provides you with an introduction to using PowerShell for system and application management. It covers various topics from starting out with Windows PowerShell version 5.0 to an intermediate level.

# **Objectives**

- Identify the components of SQL server operating system and internals.
- Review performance tuning and optimization.
- Understand the query compilation and optimization process.
- Study the query execution process.
- Examine recompilation threshold internals.

## **Outcomes**

- Gain insights to Windows PowerShell and access it.
- Learn the PowerShell syntax and write PowerShell commands.
- Take what you have learned in the classroom and apply it to your day-to-day business.

# Methodology

## Learn by example

Participate in group discussions and learn from presentations and demonstrations.

#### Hands-on

- Use a ready environment for a hands-on experience.
- Access to resources and labs for up to 6 months after the workshop.

# Scope

Windows PowerShell Foundation

# **Agenda**

#### Day 1

- Windows PowerShell basics
- Objects, variables and data types

#### Day 2

- PowerShell built In help system
- From script blocks to scripts

#### Day 3

Operators and pipelining

## Day 4

- Flow control and collection types
- Appendix

# **Delivery Outline**

## Requirements

#### **Participants**

 Participants with experience performing automation tasks will receive the most value from this course.

## **Skill Requirements**

Have an understanding using a scripting language.

## **Time Commitment**

• Four full-day engagement with relevant roles.

## **Delivery Requirements**

- Microsoft/Windows Live ID to connect to the virtual environment
- Hardware running:
  - Supported version of Windows
  - Supported version of Office
  - Modern browser, such as Microsoft Edge (or equivalent)
  - Internet access
  - Microsoft Teams for remote deliveries

## **Education**

Day 1	Windows PowerShell Basics	<ul> <li>Introduction to Windows PowerShell</li> <li>Introduction to Commands</li> </ul>
Day 1	Objects, Variables and Data Types	<ul><li>Object Models</li><li>Variables and Data Types</li></ul>
Day 2	PowerShell Built In Help System	<ul> <li>Using the PowerShell Help System</li> </ul>
Day 2	From Script Blocks to Scripts	<ul><li>Using Script Blocks</li><li>Providers</li><li>Script Basics</li></ul>
Day 3	Operators and Pipelining	<ul> <li>Introduction to Operators</li> <li>Understanding the Windows PowerShell Pipeline</li> <li>Working with Pipelining</li> <li>Different types of Operators</li> </ul>
Day 4	Flow Control and Collection Types	<ul><li>Flow Control</li><li>Arrays</li><li>Hash Tables</li></ul>
Day 4	Appendix	PowerShell Best Practices

For more information: Contact your Microsoft Representative for more details.

