



Training | Consulting | Development | Outsourcing

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Administrator: Windows PowerShell
Windows PowerShell
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PS C:\WINDOWS\system32> New-NetIPAddress -IPAddress 192.168.1.13 -DefaultGateway 192.168.1.1
                                -PrefixLength 24 -InterfaceIndex (Get-NetAdapter).InterfaceIndex

IPAddress      : 192.168.1.13
InterfaceIndex : 10
InterfaceAlias : Ethernet0
AddressFamily  : IPv4
Type           : Unicast
PrefixLength   : 24
PrefixOrigin   : Manual
SuffixOrigin   : Manual
AddressState   : Tentative
ValidLifetime  : Infinite ([TimeSpan]::MaxValue)
PreferredLifetime : Infinite ([TimeSpan]::MaxValue)
SkipAsSource   : False
PolicyStore    : ActiveStore

IPAddress      : 192.168.1.13
InterfaceIndex : 10
InterfaceAlias : Ethernet0
AddressFamily  : IPv4
Type           : Unicast
PrefixLength   : 24
PrefixOrigin   : Manual
SuffixOrigin   : Manual
AddressState   : Invalid
ValidLifetime  : Infinite ([TimeSpan]::MaxValue)
PreferredLifetime : Infinite ([TimeSpan]::MaxValue)
SkipAsSource   : False
PolicyStore    : PersistentStore

PS C:\WINDOWS\system32>
```

Powershell Scripting

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Automating Windows Administration using Powershell

Course Overview:

Windows PowerShell is object-oriented automation engine and scripting language. It is designed mainly for the system administrators. It helps IT, professionals, to control & automate the administration of the Window OS and other applications.

It introduced some compelling new concepts that enable you to extend the knowledge you have gained and the scripts that you have created within the Windows Command Prompt and Windows Script Host environments.

It combines the flexibility of scripting, command-line speed, and the power of a GUI-based admin tool. It allows you to solve problems efficiently by helping system admin to eliminate future manual labor hours. We will go through all the important aspect which you should know to learn PowerShell.

Course Outline:

1. Introduction:

- Getting to know about Windows PowerShell
- Command Line Interface, Capabilities of PowerShell
- Basic commands and Command design structure
- Understanding the get-help in PowerShell
- Understanding the basic Syntax for PowerShell.

2. Getting started with Technical commands:

- Understanding the Headers
- Working with Pipeline Operator, Where-object and Syntax
- Working with Operators: Arithmetic Operators, Comparison Operators & Logical Operators

3. Working with Multiple Operators

- Designing a single liner Powershell command
- Formatting Options: Format-Table vs Select Object vs Format-list
- Sort-object & Common Parameters

4. Scripting:

- Creating your First Script file/Multiple liner.

- Input statement & Output statements in Powershell
- Understanding Variables and Variable Types in Powershell
- Working with Static and Dynamic Variable
- Importing contents from a File / Exporting the result to a file.
- If, Elseif, Else statement
- Do-while & Do-Until Statement

5. Looping Statements:

- For Statement
- Switch Statements
- For Each statements
- While Statements
- Try Catch Finally statement
- Break and Continue statements
- Throw and Trap Statements

6. Functions and Parameters

- Understanding the Powershell Functions
- Implementing Functions and calling the Function
- Understanding the Parameters
- Passing parameters while Script execution
- Usage of Parameters in Scheduled Scripts

7. Remote Management

- Understanding the Powershell Modules.
- Understanding the PowershellPSSession
- Importing a PSSession from Remote server.
- Finding a Module from Internet.
- Installing and Importing a Module from PSGallery source.
- Downloading and Installing PS Modules for Cloud Technologies like Office 365, Azure and Sharepoint.
- Connecting to the PowerCLI Module and create Simple VMs.
- Remote Command Triggering
- Remote Script Triggering

8. Security

- Securing the Passwords
- Embedding the Passwords in the Script.

9. WMI (Windows Management Instrumentation)

- Understanding WMI&WMI Classes

- WMI vs CIM Classes
- Scripting & Windows Remote Management using WMI.
- Custom Health Report generation using WMI and PSOBJect.
- Disk Management
- Value conversions

10. DSC:

- Overview and Introduction to Push method and Pull Method.

11. Windows Forms:

- Developing small GUI based applications on Powershell using Windows Forms.

Prerequisites:

- Working knowledge of Windows Server and Windows Client management
- Prior experience in installing and configuring Windows
- Working knowledge of network adapter configuration
- Foundational understanding of Active Directory user administration and disk configuration

Who Should Attend:

- The course is best suited for IT professionals, who have general Windows Server and Windows Client administration experience.
- It is especially going to be useful for all those professionals who are required to install and use this operating system to perform various duties in their respective organizations.

Number of Hours: 40hrs

Key Features:

- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification