

Fundamentals of PowerShell

Duration: 4 hrs

Module 1: Introduction to PowerShell and Its Use Cases

- What is PowerShell?
- PowerShell vs Command Prompt
- PowerShell Versions and Editions (Windows PowerShell vs PowerShell 7+)
- Use cases: Automation, Scripting, System Management
- Demo: Opening PowerShell and exploring the console

Module 2: Understanding Cmdlets and PowerShell Syntax

- Cmdlet structure: Verb-Noun
- Using Get-Command, Get-Help, and Get-Member
- Aliases and how to use them (ls, dir, gc, etc.)
- Pipelining concepts: | (pipe operator)
- Demo: Running basic cmdlets and piping results

Module 3: Working with Objects and Formatting Output

- Understanding PowerShell objects
- Viewing and filtering properties
- Using Select-Object, Sort-Object, Where-Object
- Output formatting: Format-Table, Format-List
- Demo: Querying services, processes, and event logs

Module 4: PowerShell Providers and the File System

- Introduction to PowerShell providers (FileSystem, Registry, etc.)
- Navigating file system with PowerShell (cd, ls, mkdir, etc.)
- Copying, moving, and deleting files/folders
- Demo: Managing files using PowerShell commands