Course duration

5 days

Course Benefits

- 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.

Microsoft Certified Partner

Webucator is a Microsoft Certified Partner for Learning Solutions (CPLS). This class uses official Microsoft courseware and will be delivered by a Microsoft Certified Trainer (MCT).

Course Outline

- 1. Getting started with Windows PowerShell
 - 1. Windows PowerShell overview
 - 2. Understang Windows PowerShell command syntax
 - 3. Find commands and get help in Windows PowerShell
 - 4. Lab: Configuring Windows PowerShell, and finding and running commands
- 2. Windows PowerShell for local systems administration
 - 1. Active Directory Domain Services administration cmdlets
 - 2. Network configuration cmdlets
 - 3. Server administration cmdlets
 - 4. Windows PowerShell in Windows 10
 - 5. Lab: Performing local system administration with PowerShell
- 3. Working with the Windows PowerShell pipeline
 - 1. Understand the pipeline
 - 2. Select, sort, and measure objects

- 3. Filter objects out of the pipeline
- 4. Enumerate objects in the pipeline
- 5. Send and pass pipeline data as output
- 6. Lab: Using PowerShell pipeline
- 4. Using PSProviders and PSDrives
 - 1. Using PSProviders
 - 2. Using PSDrives
 - 3. Lab: Using PSProviders and PSDrives with PowerShell
- 5. Querying management information by using CIM and WMI
 - 1. Understand CIM and WMI
 - 2. Query data by using CIM and WMI
 - 3. Make changes by using CIM and WMI
 - 4. Lab: Querying information by using WMI and CIM
- 6. Working with variables, arrays, and hash tables
 - 1. Use variables
 - 2. Manipulate variables
 - 3. Manipulate arrays and hash tables
 - 4. Lab: Using variables, arrays, and hash tables in PowerShell
- 7. Windows PowerShell scripting
 - 1. Introduction to scripting with Windows PowerShell
 - 2. Script constructs
 - 3. Import data from files
 - 4. Accept user input
 - 5. Troubleshooting and error handling
 - 6. Functions and modules
 - 7. Lab: Using scripts with PowerShell
- 8. Administering remote computers with Windows PowerShell
 - 1. Use basic Windows PowerShell remoting
 - 2. Use advanced Windows PowerShell remoting techniques
 - 3. Use PSSessions
 - 4. Lab: Performing remote administration with PowerShell
- 9. Managing Azure resources with PowerShell
 - 1. Azure PowerShell
 - 2. Introduce Azure Cloud Shell
 - 3. Manage Azure VMs with PowerShell
 - 4. Manage storage and subscriptions
 - 5. Lab: Azure resource management with PowerShell
- 10. Managing Microsoft 365 services with PowerShell
 - 1. Manage Microsoft 365 user accounts, licenses, and groups with PowerShell
 - 2. Manage Exchange Online with PowerShell
 - 3. Manage SharePoint Online with PowerShell
 - 4. Manage Microsoft Teams with PowerShell
 - 5. Lab: Managing Microsoft 365 with PowerShell
- 11. Using background jobs and scheduled jobs
 - 1. Use background jobs
 - 2. Use scheduled jobs
 - 3. Lab: Jobs management with PowerShell

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following is required for this PowerShell class:

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