



Microsoft - Powershell

Title : Microsoft Powershell Administrator

Institute Certification : SmartEntry Certified Powershell Scripting

Duration: 20 Hrs

Fees: 15K

Prerequisite : MCSA Certified OR Course Completion

Description

This course covers the importance of infrastructure automation in DATA Center and Cloud. This training model will enhance your career in scripting Powershell and being infrastructure administrator would help to provisioning cloud services.

Course Objectives

Automating Windows Server Administration with Windows PowerShell

Module 1: Introduction to Microsoft Windows PowerShell

This module explains how to check your system for prerequisites for Windows PowerShell, use Server Manager to install Windows PowerShell architecture, confirm installation, and use Windows PowerShell commands to customize the Windows PowerShell environment.

Lessons
<ul style="list-style-type: none">▪ Introduction to Why Windows PowerShell ?▪ Versions of Powershell in Windows OS▪ Understanding Objects & Classes▪ Difference between CMD and Powershell CMDLets▪ Powershell Folder & File Related Cmdlets
Lab 1: Implementing Windows PowerShell



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- Knowing version of Powershell
- Changing into Powershell Administrator window
- Listing Folders & Files using Get-childitem
- Using Wild card Characters
- Using -force & -hidden
- Change the path using powershell
- Create new item file and folder
- Viewing content of files

Module 2: Overview of Microsoft Windows PowerShell

This module explains basic concepts in Windows PowerShell, including objects, variables, cmdlets, and pipelines. It describes how to invoke available cmdlets and aliases, assign aliases. The module also includes demonstrations of tab expansion and basic operators.

Lessons

- Tab Expansion, Aliases, and History
- Using Variables and Constants
- Understanding Regular Expression
- Understanding Get-member and Properties
- Understanding Pipelines
- Formatting the view in 4 ways
- Understanding where-object class
- Understanding Process & Services

Lab 1: Working with Windows PowerShell Cmdlets, Aliases, Objects, and Variables

- Working practical with Aliases
- Defining Variables & Constants with examples
- Complete practical using Get-member and Properties with variables
- Sorting and Selecting Elements from a Resultant Set of Data
- Evaluating Process Properties Using the Get-Member Cmdlet
- Using Where-object with Process & Services



Module 3: Building Pipelines for Assembly-Line Style Processing

This module explains how to use a Powershell Profiles and reading and writing data using HTML, XML and CSV.

Lessons
<ul style="list-style-type: none">▪ Filtering and Iterating Through the Pipeline▪ Powershell Profiles▪ Reading & Writing Data▪ Understanding HTML / XML / CSV
Lab 1: Implementing Pipelines in Windows PowerShell
<ul style="list-style-type: none">▪ Working complete practical Powershell Profiles▪ Using if Conditional Clause with variables and Objects▪ Converting data into HTML Format▪ Import & Export data CSV▪ Converting and listing data using XML

Module 4: Managing Processes and Formatting Cmdlet Output

This module explains how to use the Powershell remoting to manage the remote servers and desktops and Providers

Lessons
<ul style="list-style-type: none">▪ Powershell Providers▪ Powershell Remoting
Lab 1: Output Formatting and Process Control with Windows PowerShell
<ul style="list-style-type: none">▪ Practical Examples with File System Provider▪ Practical Examples with Alias Provider▪ Practical Examples with Registry Provider▪ Working practical examples handling Remote Systems



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Module 5: Introduction to Scripting with Microsoft Windows PowerShell

This module explains how to write and modify scripts to perform a sequence of cmdlets. Security and working with credentials are also discussed.

Lessons
<ul style="list-style-type: none">▪ Writing Windows PowerShell Scripts▪ Script Parameters▪ Security in Windows PowerShell
Lab 1: Implementing Scripts in Windows PowerShell
<ul style="list-style-type: none">▪ Writing and Running a Script▪ Customizing Profiles

Module 6

Administering Active Directory with Microsoft Windows PowerShell

This module explains how to write scripts to perform Active Directory administration tasks such as changing the domain functional level, moving FSMO roles, and creating and modifying objects such as groups and user accounts. Managing relationships between user accounts and groups is also demonstrated.

Lessons
<ul style="list-style-type: none">▪ Administering Domains and Forests Using .NET Objects▪ Managing User Accounts and Groups Using ADSI▪ Managing Relationships Between Users and Groups
Lab 1: Administering Active Directory with Windows PowerShell
<ul style="list-style-type: none">▪ Managing Active Directory Domain and Forest Properties▪ Maintaining Active Directory with ADSI▪ Maintaining Relationships in Active Directory with ADSI