"PowerShell for Windows and Linux Administrators"

Course Introduction:

This course provides students with the necessary knowledge to successfully administer Microsoft Windows Server and Client operating systems and Linux operating systems using PowerShell. In this course, students are shown the use of PowerShell commands to create, modify, and maintain various components of Windows and Linux operating systems.

1. **Module 1: Getting Started**

A. Lesson 1: Understanding PowerShell versions
B. Lesson 2: Understanding command syntax
C. Lesson 3: Getting help
D. Lab: Getting started

2. **Module 2: Building pipelines**

A. Lesson 1: PowerShell objects
B. Lesson 2: Customizing output through the pipeline
C. Lesson 3: Formatting pipeline output
D. Lab: Building Pipelines

3. **Module 3: Working with data stores**

A. Lesson 1: PowerShell providers
B. Lesson 2: PowerShell drives
C. Lab: Working with PowerShell drives

4. **Module 4: Making use of variables**

A. Lesson 1: Creating and modifying variables
B. Lesson 2: Manipulating variables
C. Lesson 3: Manipulating arrays
D. Lab: Using variable and arrays

5. **Module 5: Using CIM commands**

A. Lesson 1: Understanding Common Information Model
B. Lesson 2: Issuing queries with CIM commands

C. Lesson 3: CIM sessions
D. Lesson 4: Modifying CIM data
E. Lab: Working with CIM

6. Module 6: Working with remote computers

A. Lesson 1: Remote connectivity vs. remoting
B. Lesson 2: Remoting the ad-hoc way
C. Lesson 3: Remoting sessions
D. Lesson 4: Remoting over SSH
E. Lab: Working with remote computers

7. Module 7: Basic scripting

A. Lesson 1: Security
B. Lesson 2: Scripting constructs
C. Lesson 3: Importing and exporting data
D. Lesson 4: Providing for user input
E. Lab: Creating basic scripts

8. Module 8: Advanced Scripting Concepts

A. Lesson 1: Using parameter blocks
B. Lesson 2: Handling errors
C. Lesson 3: Creating custom help
D. Lesson 4: Functions and script modules
E. Lab: Implementing advanced scripting