

## **PowerShell for SQL Server Administrators**

### **Module 1: Install and Configure SQL Server with PowerShell**

This module explains how to setup SQL Server components using PowerShell.

#### **Lessons**

Module Objectives

Lesson 1: Install SQL Server

Lesson 2: Configure Database Settings

Lesson 3: Configure SQL Server Settings

Lesson 4: Configure SQL Server Policy-Based Management

#### **Lab 1: Install and Configure SQL Server with PowerShell**

- Exercise 1: Install SQL Server
- Exercise 2: Configure Database Settings
- Exercise 3: Configure SQL Server Settings
- Exercise 4: Configure SQL Server Policy-Based Management

After completing this module, students will be able to:

Use PowerShell to Install SQL Server Instances

Use PowerShell to Add/Remove components to an existing instance (SSRS, SSIS, SSAS, Tools, etc.)

Use PowerShell to configure SQL Server and Database Settings

Use PowerShell to configure SQL Server Policy-Based Management

### **Module 2: Administering SQL Servers with PowerShell**

This module explains how to perform day-to-day administrative tasks on SQL Server Instances using PowerShell.

#### **Lessons**

Module Objectives

Lesson 1: Managing Users and Roles

Lesson 2: Managing Database Performance

Lesson 3: Managing Database Availability

Lesson 4: Managing SQL Server Features

#### **Lab 1: Administering SQL Servers with PowerShell**

- Exercise 1: Managing Users and Roles
- Exercise 2: Managing Database Performance

- Exercise 3: Managing Database Availability
- Exercise 4: Managing SQL Server Features

After completing this module, students will be able to:

- Use PowerShell to Manage Users and Roles
- Use PowerShell to Manage Database Performance
- Use PowerShell to Manage Database Availability (Using Clustering and AlwaysOn Availability Features)
- Use PowerShell to Manage Integration Services (SSIS) and Analysis Services (SSAS)

### **Module 3: Maintaining SQL Server with PowerShell**

This module explains how to perform maintenance tasks on SQL Server Instances using PowerShell.

#### **Lessons**

Module Objectives

Managing Backups and Restores

Maintaining Database Integrity and Performance

Monitoring and Auditing

Task Automation

Generating Reports

Review

#### **Lab 1: Maintaining SQL Server with PowerShell**

- Exercise 1: Managing Backups and Restores
- Exercise 2: Maintaining Database Integrity and Performance
- Exercise 3: Monitoring and Auditing
- Exercise 4: Task Automation
- Exercise 5: Generating Reports

After completing this module, students will be able to:

- Use PowerShell to Manage SQL Server Backups and Restores
- Use PowerShell to Maintain Database Integrity and Performance (Using DBCC and other tools)
- Use PowerShell to Monitor and Audit changes to a SQL Server Instance