

Microsoft - PowerShell for SQL Server Administrators

Code:	55069
Length:	2 days
URL:	View Online

(Updated for SQL Server 2016)

This two-day instructor-led course provides candidates with the knowledge and skills needed to use PowerShell for SQL Server administration.

Students will learn how to manage day-to-day and scheduled maintenance tasks. The main focus will be administration of the database engine, but optional material and exercises on Analysis Services(SSAS) and Integration Services (SSIS) are also included.

To include all the optional labs, the course may need to be taught in three-days instead of two.

Skills Gained

- Install and Configure SQL Server and all its components using PowerShell
- Manage day-to-day SQL Server Administration with PowerShell
- Maintain the SQL Server environment using PowerShell scripting and programming options

Who Can Benefit

This course is intended for SQL Server administrators who work in a Windows network environment. At least one year of experience administering SQL Servers and using PowerShell is recommended.

Prerequisites

- Experience working on Windows desktops or servers
- Experience working in a Windows domain environment
- Experience Administering SQL Server Servers
- Fundamental experience with PowerShell

Course Details

Outline

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
Review

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
Review

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
 - Use PowerShell for Task Automation on SQL Server
 - Use PowerShell to Generate SQL Server Reports
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