PowerShell for SQL Server Administrators
55069A; 2 days, Instructor-led

Course Description
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 material & exercises on Analysis Services (SSAS) and Integration Services (SSIS) are also included.

Audience Profile
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.

Course Completion
After completing this course, students will be able to:
- 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

Prerequisites
Before attending this course, students must have:
- Experience working on Windows desktops or servers
- Experience working in a Windows domain environment
- Experience Administering SQL Server Servers
- Fundamental experience with PowerShell or Course 10961B – Automating Administration with Windows PowerShell

Course 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: Configuring 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:
- Install SQL Server
- Add/Remove components to an existing instance (SSRS, SSIS, SSAS, etc.)
- Configure SQL Server and Database Settings
- 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 Servers 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: 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:
- Manage Users and Roles
- Manage Database Performance
- Manage Database Availability with Clustering & AlwaysOn Availability Groups
- Manage Integration Services and Analysis Services

Module 3: Maintaining SQL Server with PowerShell
This module explains how to perform maintenance tasks on SQL Servers using PowerShell.

Lessons
- Module Objectives
- Managing Backups and Restores
- Maintaining Database Integrity and Performance
- Monitoring and Auditing
- Task Automation
- Generating Reports
- Review

Lab: Maintaining SQL Servers 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:
• Manage SQL Server Backups and Restores
• Maintain Database Integrity and Performance
• Monitor and Audit changes to a SQL Server
• Task Automation on SQL Server
• Generate SQL Server Reports

Additional Reading
To help you prepare for this class, review the following resources:
• Classroom Training: Course 10775A - Administering Microsoft SQL Server 2012 Databases