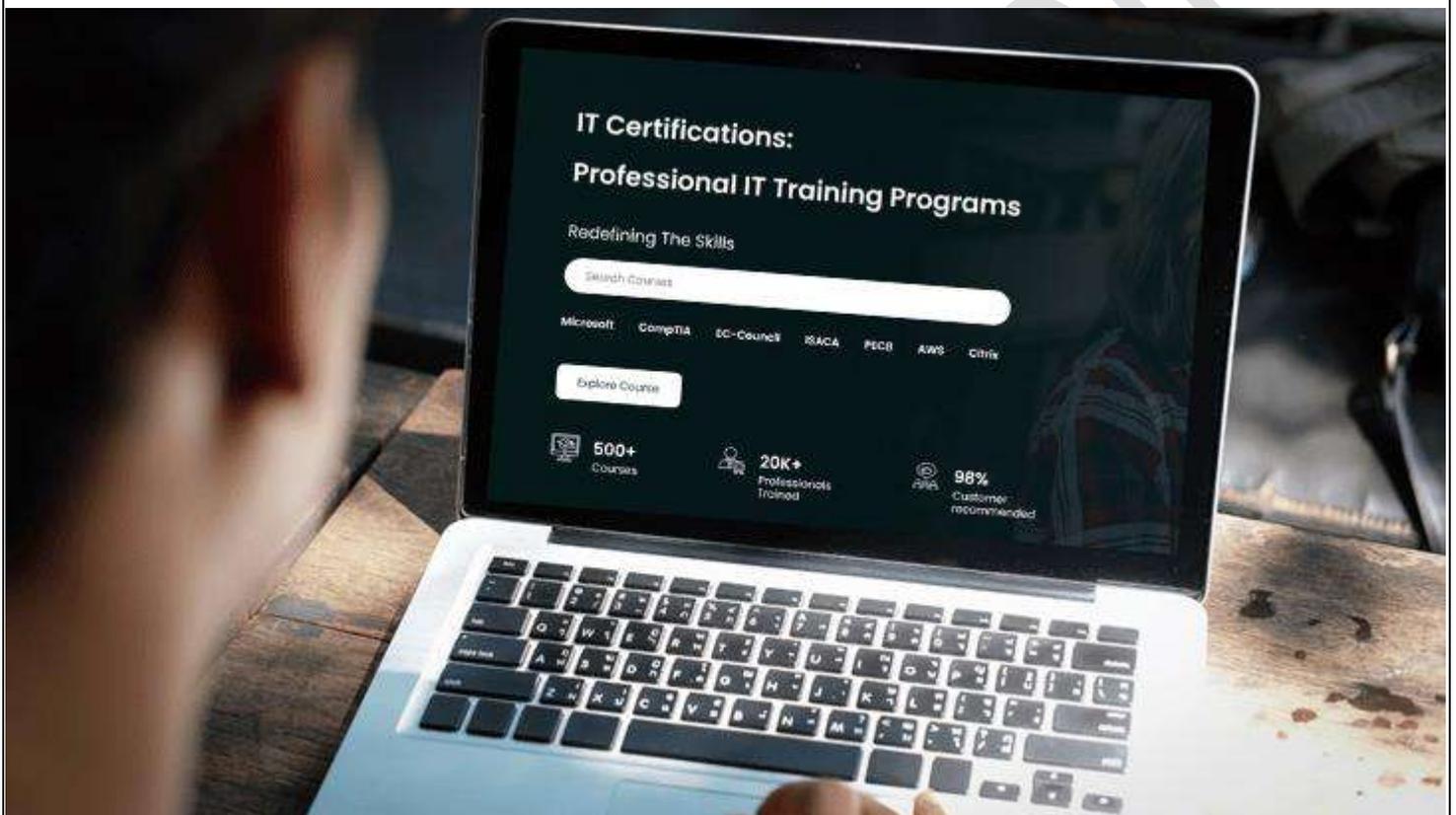




Redefining The Skills



# 55207: POWERSHELL FOR SQL ADMINISTRATION TRAINING

**Duration: 1 Day**

### **Course Description**

The course provided by Microtek Learning is meant for SQL admin's basic PowerShell knowledge.

The course focuses on commonly used SQL administrative tasks and provides the core understanding required for admins to utilize the ever-growing PowerShell SQL interoperations.

This training is designed based on the objectives of the course variant 55207A.

### **Training Exclusives**

- Live instructor-led interactive sessions with Microsoft Certified Trainers (MCT).
- Access to Microsoft Official Courseware (MOC).
- Real-time Virtual Lab Environment.
- Experience 24\*7 Learner Support.
- Self-paced learning and flexible schedules.

### **Who should attend this course?**

- This course is intended for SQL Administrators and SQL Developers.

### **What you will learn**

- Examining and installing modules.
- Understanding SQL SMO.
- Understanding recent updates.
- Understanding and creating logins.
- Retrieving instance information on SQL Server.
- Examining and understanding of SQL Server Cmdlets.
- Understanding addition of files and filegroups.
- Understanding the process of detaching and attaching databases.
- Understanding the process of backup and restore databases.
- Understanding the process to reorganize/rebuild indexes.
- Exploring available cmdlets.
- Understanding scheduling options.
- Understanding performance metrics tracking options.
- Understanding and utilizing SSAS.
- Understanding and utilizing SSIS.
- Understanding and utilizing SSRS.
- Understanding PowerShell's evolution.
- Understanding and utilizing PowerShell environment.
- Understanding and utilizing the important Help System.
- Understanding and utilizing PowerShell.
- Understanding and utilizing the file system to work.
- Understanding and utilizing parameters.
- Understanding and utilizing user-defined variables.
- Understanding and utilizing arrays.
- Understanding and utilizing hash tables.
- Understanding and executing cmdlets.
- Understanding and utilizing the pipeline.
- Understanding output control with formatting.

- Understanding background jobs.
- Understanding aliases.
- Understanding and utilizing loops.
- Understanding and utilizing While loops.
- Understanding and utilizing Do While loops.
- Understanding and utilizing Do Until loops.
- Understanding and utilizing For loops.
- Understanding and utilizing For Each loop.
- Understanding altering loop execution.
- Understanding and utilizing scripting.
- Understanding functions and filters.
- Understanding script design basics.
- Understanding scripting pitfalls.

## **Curriculum**

### **Module 1: Course Overview**

This module explains how the class will be structured and introduces course materials and additional administrative information.

- Introduction
- Course Materials
- Facilities
- Prerequisites
- What We'll Be Discussing

#### **Lab: Course Overview**

After completing this module, students will be able to:

- Successfully log into their virtual machine.
- Have a full understanding of what the course intends to cover.

### **Module 2: PowerShell and SQL**

In this module, we will be discussing SQL Server Cmdlets and SQL Server Management Objects. In addition, we will look at modules and the process to install the SQLPS Module.

- Examining Modules and Installing the SQLPS Module
- Examining SQL Server Cmdlets
- Discussing SQL Server Management Objects (SMO)
- Recent Updates – July 2016

#### **Lab: PowerShell and SQL**

- Installing the PowerShell SQL Module

After completing this module, students will be able to:

- Examine and install modules.
- Examine and understand SQL Server Cmdlets.
- Understand SQL Server Management Objects (SMO).
- Understand recent updates.

### **Module 3: SQL Administration with PowerShell**

In this module, we will examine ways of retrieving information pertaining to the SQL Server instance

installed, and look at ways of accomplishing many other management and administrative tasks that can be quickly and efficiently tackled with PowerShell.

- Examining SQL Information Retrieval
- Exploring Logins
- Adding Files and Filegroups
- Detach and Attach Databases
- Understanding Backup and Restore
- Examining Indexes

**Lab:** SQL Administration with PowerShell

- SQL Server Instances
- Databases
- Tables
- Processes
- Features
- Jobs
- Logins
- Files and FileGroups
- Detach and Attach Databases
- Backup and Restore
- Indexes

After completing this module, students will be able to:

- Retrieve SQL Server instance information.
- Understand and create logins.
- Understand how to add files and filegroups.
- Understand how to detach and attach databases.
- Understand how to backup and restore databases.
- Understand how to reorganize/rebuild indexes.

**Module 4: Monitoring and Automation**

In this module, we will examine a handful of helpful cmdlets, discuss options for scheduling, and explore ways to track performance metrics.

- Exploring Cmdlets
- Discussing Scheduling
- Understanding Performance Metrics

**Lab:** Monitoring and Automation

After completing this module, students will be able to:

- Explore available cmdlets.
- Understand scheduling options.
- Understand options for tracking performance metrics.

**Module 5: SSAS, SSIS, AND SSRS Optional Module**

In this module, we will examine ways of working with SQL Server Analysis Services (SSAS), SQL Server Integration Services (SSIS), and SQL Server Reporting Services (SSRS).

This module is not meant to be an exhaustive reference but instead is intended to give you a brief look at the capabilities built into the system and encourage you to further explore ways of managing your SQL Server environment using PowerShell.

- Examining SQL Server Analysis Services (SSAS)
- Exploring SQL Server Integration Services (SSIS)
- Utilizing SQL Server Reporting Services (SSRS)

**Lab:** SSAS, SSIS, AND SSRS

- SSAS
- SSIS
- SSRS

After completing this module, students will be able to:

- Understand and utilize SSAS.
- Understand and utilize SSIS.
- Understand and utilize SSRS.

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*For any query Contact Us – Microtek Learning*

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