PowerShell and PowerShell Core basics

Course code: GOC216

Five-days instructor-led course teaches basics of handling the command line, pipe and scripting, and basic programming of simpler functions in both PowerShell and PowerShell Core, how to use basic language elements such as the pipe, variables, conditions, methods and NET types, functions, exception handling and error management, module development and remote connections using PowerShell Remoting (PSRemoting) over both HTTPS and SSH. The training is suitable for IT admins, developers as well as DevOps and the knowledge at this level is necessary to attend more advanced and more specialized PowerShell tranings.

Prerequisities

Knowledge in extent of the courses which are listed in the bellow sections Previous Courses and Related Courses

Course outline

Versions of PowerShell and PowerShell Core and their support requirements

Working with the command line interface and built-in GUI tool PowerShell_ISE, overview of Visual Studio options

Running built-in EXE programs, cmdlets and calling .NET static methods

Command line interpreter syntax

Expression parsing in developper mode

Basic elements of the command line, pipe and its features

Introduction to types, classes and objects, their properties and methods

Examples of common built-in cmdlets for operating system administration such as Get-, Set-, New-, Add-, Move- etc.

Getting help, command syntax, aliases and commenting

Concept of PSDrive, working with files, registry and certificates

Running scripts from BAT files, scheduled tasks and using psexec

Remote connections with PSRemoting (Enter-PSSession)

Typed variables, value casting and automatic value conversions

Basic data types such as integers, strings, datetime, GUID, enum etc.

Working with CIM and WMI, random number generators, downloading and parsing web pages, access web services

Working with text files, CSV/TSV files, INI and XML files, input and output from/to files

Basic language elements such as if, while, do, for, foreach etc.

Introduction into building more complex functions and creating PowerShell modules

Handling errors and exceptions (try, catch, finally)

Preparation for Microsoft certification

Most Microsoft certification exams do not require students to attend an official MOC course in order to pass the exam.

This applies to all certifications except for MCM

Official Microsoft MOC courses as well as our own GOC courses are good ways of preparation for Microsoft certifications such as MCP, MTA, MCSA, MCSE or MCM

This does not mean that official MOC courses would serve as the only necessary praparation. The primary goal of an MOC course is to provide for sufficient theoretical knowledge and practical experience to effectively work with the related product

MOC courses usually cover most of the topics required by their respective certification exams, but often do not give

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every topic the same amount of time and emphassis as may be required to completelly pass the exam

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