

Scripting with Powershell

Audience Scripting with PowerShell Course

This course is intended for Windows system administrators and other interested persons who want to use PowerShell to manage Windows Servers and applications like ISS and Exchange.

Prerequisites Course Scripting with PowerShell

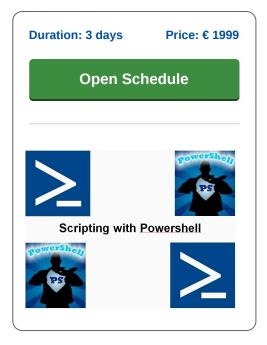
To participate in this course general skills in working with computers and working knowledge of Windows is required.

Realization Training Scripting with PowerShell

The theory is treated on the basis of presentation slides. The concepts are illustrated with demos. The theory is interspersed with exercises.

Certification Scripting with PowerShell

After successful completion of the course participants receive an official certificate Scripting with PowerShell.



Content Course Scripting with Powershell

In the course Scripting with PowerShell, participants learn to use PowerShell to manage Windows Servers and applications such as Internet Information Server and Exchange. PowerShell is a cross-platform scripting language with which tasks can be controlled and automated from the command line.

PowerShell Intro

The course Scripting with PowerShell starts with a discussion of the basic commands in PowerShell and how to use the Integrated Scripting Editor. It also explains the use of CmdLets and parameters and the use of PowerShell in a dotNet environment.

PowerShell Syntax

Next the syntax of PowerShell is treated and the operators, variables, data types and control flow structures in PowerShell are discussed.

Functions

Attention is also paid to calling functions, creating functions and handling errors. Accessing files, directories and the registry is part of the course as well.

Remote Access

PowerShell can also be used to remotely control and configure servers and applications. WinRM and WSMan are used for this. The course also pays attention to how to approach a REST API and how to process XML and JSON data.

WMI

Windows Management Instrumentation (WMI) is the infrastructure for managing data and operations on Windows Operating Systems. The course covers how PowerShell can be used to control WMI when requesting System Information such as Performance Counters and setting object properties.

Advanced PowerShell

Finally attention is also paid to a number of advanced PowerShell topics such as performing administrative tasks related to Active Directory and IIS. After completing the course Scripting with PowerShell, the participants are able to automate common administrative tasks with simple commands and ready-made scripts.



Modules Course Scripting with Powershell

Module 1 : PowerShell Intro	Module 2 : Language Syntax	Module 3 : Functions
Basics of PowerShell	Variables and Data Types	Code Reuse
Interactive Shell	Booleans	Using Functions
Customizing PowerShell	Numbers and Strings	Standard Functions
Aliases in PowerShell	Arrays and Hash Tables	Creating Functions
Basic Commands	Built in Variables	Passing Parameters
Shell Pipeline	Operators and Control Flow	Return Values
PowerShell Providers	if, then, else Statements	Filtering with Where-Object
dotNet in PowerShell	PowerShell Looping	Handling Errors
CmdLets en Parameters	Modules	Accessing Files
Commands and Expressions	Variable Scope	PSProviders and PSDrives
Module 4 : Remote Access	Module 5 : WMI	Module 6 : PowerShell Advanced
Module 4 : Remote Access Administer Remote Computers	Module 5 : WMI Query System Information	Module 6 : PowerShell Advanced Background jobs
Administer Remote Computers	Query System Information	Background jobs
Administer Remote Computers Understanding WinRM Understanding WSMan	Query System Information Automated Administration	Background jobs Scheduled jobs
Administer Remote Computers Understanding WinRM	Query System Information Automated Administration WMI and CIM Support	Background jobs Scheduled jobs Registry access
Administer Remote Computers Understanding WinRM Understanding WSMan WSMan Security Enabling and Configuring	Query System Information Automated Administration WMI and CIM Support Get-WMI Object	Background jobs Scheduled jobs Registry access Complex Pipeline Output
Administer Remote Computers Understanding WinRM Understanding WSMan WSMan Security Enabling and Configuring	Query System Information Automated Administration WMI and CIM Support Get-WMI Object Using the Get-WmiObject Cmdlet	Background jobs Scheduled jobs Registry access Complex Pipeline Output Controller Scripts
Administer Remote Computers Understanding WinRM Understanding WSMan WSMan Security Enabling and Configuring Trusted Hosts	Query System Information Automated Administration WMI and CIM Support Get-WMI Object Using the Get-WmiObject Cmdlet WMI Object Properties	Background jobs Scheduled jobs Registry access Complex Pipeline Output Controller Scripts Active Directory
Administer Remote Computers Understanding WinRM Understanding WSMan WSMan Security Enabling and Configuring Trusted Hosts Configuring Remoting	Query System Information Automated Administration WMI and CIM Support Get-WMI Object Using the Get-WmiObject Cmdlet WMI Object Properties WMI Type Accelerators	Background jobs Scheduled jobs Registry access Complex Pipeline Output Controller Scripts Active Directory Group policies