Course : PowerShell, advanced

Practical course - 2d - 14h00 - Ref. EPF
Price : 1610 CHF E.T.

★★★★⯨ 4,4 / 5

BEST

This training course will enable you to deepen your knowledge of PowerShell. You'll learn how to create Windows-style forms, integrate C# code, HTML code and XML into a PowerShell script, and manage jobs. You'll also learn how to create DSC scripts and workflows.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Automate Windows administration tasks with PowerShell
- ✓ Managing users with PowerShell scripts
- ✓ Creating, deleting and searching for objects in AD with PowerShell
- ✓ Writing a DSC (Desired State Configuration) script

Intended audience
Systems and network technicians, administrators and engineers.

Prerequisites
Good knowledge of the Windows operating system, PowerShell, AD or equivalent to the course "PowerShell, automating Windows administration" (ref. ATU).

Course schedule

1   Syntax reminder

- Variables, operators and control structures.
- Pipelines: flow behavior and parameterization.
- Code simplification, the PipelineVariable.
- Where-objects filters, foreach loops.
- Variables and operator types.

Hands-on work
Use of the first commands, various cmdlettes, the pipe, PipelineVariable and filters.

PARTICIPANTS
Systems and network technicians, administrators and engineers.

PREREQUISITES
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TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

2) Classes in PowerShell 5

- Creating classes. Inheritance.
- Create properties and methods.
- The Enum.

Hands-on work
Create an Audit_test class, use ENUM, implement inheritance.

3) XAML forms

- Basic principle and creation of the XAML model.
- Using WPF. Coding in ISE.

Hands-on work
Creation of an XAML form for IT asset management.

4) Using .NET

- Use object libraries to manipulate system components.
- Load .Net classes.
- Available classes, properties and methods.
- Add C#, HTML and CSS code to a PowerShell script.

Hands-on work
Creation of a simple class in C#, integration into a PS1 script, creation of a script to list available classes.

5) Workflow, DSC

- Definition of DSC, workflow.
- Simple operation of DSC and workflow.

Hands-on work
Install a DSC application and a DHCP role. Create a DSC script for copying folders/files to servers and create a workflow for massively pinging IP addresses in parallel.

6) Module creation, manifest creation

- Function of a PowerShell module.
- Creation of a module, integration into the workstation.
- Add script, param, customize.
- Detailed help added.

Hands-on work
Creation of an asset management module, a pinging module for selecting network identifiers, IP addresses to be pinged or a list of computers.

(7) Job management, remoting

- Introduction, WinRM functions.
- What is a job?
- The various cmdlets for managing jobs (get-job, receive-job, wiat-job, start-job...).
- The different states of a job.

Hands-on work
Creation of a script using jobs and Winrm to manage a set of servers.

Dates and locations

REMOTE CLASS
2026 : 25 June, 1 Oct., 26 Nov.