TEKNOLOGISK INSTITUT



Kursus
5 dage **DKK 21.499**
Nr. 87416 A ekskl. moms

Dato	Sted
10-04-2024	Aarhus
22-05-2024	Taastrup
07-10-2024	Taastrup
04-11-2024	Aarhus

Automating Administration with PowerShell [AZ-040T00]

Lær hvordan du kan bruge Windows PowerShell til at administrere og automatisere dine Windows servere. På kurset lærer du desuden, hvordan du identificerer og opbygger kommandoer og scripts til gentagne opgaver og generering af rapporter.

Deltagerprofil

Dette kursus er for dig som allerede har erfaring med generel administration af Windows Server, Windows-klient, Azure og Microsoft 365, og som gerne vil vide mere om at bruge PowerShell til administration. Dette kursus er også velegnet til dig, der allerede har erfaring med serveradministration, herunder Exchange Server, SharePoint Server eller SQL Server.

Du forventes at have erfaring med administration, vedligeholdelse og fejlsøgning af Windows Server og Windows klient.

Udbytte

- Lær de grundlæggende funktionaliteter i PowerShell
- Lær at oprette grundlæggende scripts i Windows PowerShell
- Lær at identificere og køre cmdletter til lokal systemadministration
- Lær at arbejde med Windows PowerShell-pipelinen
- Lær at bruge PSProviders og PSDrives til at arbejde med andre former for lagerplads
- Lær at lave forespørgsler på systemoplysninger ved hjælp af WMI og CIM
- Lær at arbejde med variabler, matrixer og hashtabeller

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kurser@teknologisk.dk
+45 72 20 30 00

- Lær at administrere Azure-ressourcer og Microsoft 365-tjenester med PowerShell

Det får du på arrangementet

- Øvelser og inddragelse
- Kursusbevis
- Erfaren underviser
- Fuld forplejning
- Gratis parkering
- Materiale på engelsk
- Undervisning på dansk
- Certificeret underviser

Indhold

Module 1: Getting started with Windows PowerShell

- This module will introduce you to Windows PowerShell and provide an overview of the product's functionality. The module explains how to open and configure Windows PowerShell. It also explains how to run commands and use the built-in Help system in Windows PowerShell.

  - Windows PowerShell Overview
  - Understand Windows PowerShell command syntax
  - Find commands and get help in Windows PowerShell

Module 2: Windows PowerShell for local system administration

- This module introduces you to the different types of cmdlets commonly used for system administration. While you can search for cmdlets each time you need to accomplish a task, it is more efficient to have at least a basic understanding of these cmdlets. This module also explains how to manage Windows 10 by using PowerShell.

  - Active Directory Domain Services administration cmdlets
  - Network configuration cmdlets
  - Server administration cmdlets
  - Windows PowerShell in Windows 10

Module 3: Working with the Windows PowerShell pipeline

- This module introduces the pipeline feature of Windows PowerShell. The pipeline feature is included in several command-line shells such as the command prompt in the Windows operating system. However, the pipeline feature in Windows PowerShell provides more complex, flexible, and capable functionalities compared to other shells. This module provides you with the skills and knowledge that will help you use Windows PowerShell more effectively and efficiently.

  - Understand the pipeline
  - Select, sort, and measure objects
  - Filter objects out of the pipeline
  - Enumerate objects in the pipeline
  - Send pipeline data as output

Module 4: Using PSProviders and PSDrives

- This module introduces the PSProviders and PSDrives adapters. A PSProvider is basically a Windows PowerShell adapter makes some form of storage resemble a hard drive. A PSDrive is an actual connection to a form of storage. You can use these two technologies to work with various forms of storage by using the same commands and techniques that you use to manage the file system.

  - Using PSProviders

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- Using PSDrives

Module 5: Querying management information by using WCIM and WMI

- This module introduces you to two parallel technologies: Windows Management Instrumentation (WMI) and Common Information Model (CIM). Both these technologies provide local and remote access to a repository of management information including access to robust information available from the operating system, computer hardware, and installed software.

  - Understand WMI and CIM
  - Querying data by using WMI and CIM
  - Make changes with WMI/CIM

Module 6: Working with variables, arrays, and hash tables

- Variables are an essential component of scripts. You can use variables to accomplish complex tasks that you can't complete by using a single command. This module explains how to work with variables, arrays, and hash tables as steps in learning how to create Windows PowerShell scripts.

  - Use variables
  - Manipulate variables
  - Manipulate arrays and hash tables

Module 7: Windows PowerShell scripting

- This module explains how to package a Windows PowerShell command in a script. Scripts allow you to perform repetitive tasks and more complex tasks than cannot be accomplished in a single command.

  - Introduction to scripting with Windows PowerShell
  - Script constructs
  - Import data from files
  - Accept user input
  - Troubleshooting and error handling
  - Functions and modules

Module 8: Administering Remote Computers with Windows PowerShell

- This module introduces you to the Windows PowerShell remoting technology that enables you to connect to one or more remote computers and instruct them to run commands on your behalf.

  - Use basic Windows PowerShell remoting
  - Use advanced Windows PowerShell remoting techniques
  - Use PSSessions

Module 9: Managing Azure resources with PowerShell

- This module provides information about installing the necessary modules for cloud services management. It explains how to use PowerShell commands to perform some simple administrative tasks on cloud resources such as Azure virtual machines (VMs), Azure storage accounts, and Azure subscriptions. This module also describes how to use the Azure Cloud Shell environment to perform PowerShell-based or Bash-based administration directly from the Azure portal.

  - Azure PowerShell
  - Introduce Azure Cloud Shell
  - Manage Azure VMs with PowerShell
  - Manage storage and subscriptions

Module 10: Managing Microsoft 365 services with PowerShell

- This module describes how to use PowerShell to manage Microsoft 365 user accounts, licenses, and groups, Exchange Online, SharePoint Online, and Microsoft Teams.

  - Manage Microsoft 365 user accounts, licenses, and groups with PowerShell
  - Manage Exchange Online with PowerShell
  - Manage SharePoint Online with PowerShell
  - Manage Microsoft Teams with PowerShell

Module 11: Using background jobs and scheduled jobs

- This module describes how to use background jobs and scheduled jobs. It also explains how to create scheduled jobs and retrieve job results.

  - Use background jobs
  - Use scheduled jobs

Anmeldelser af Automating Administration with PowerShell [AZ-040T00]

Underviseren var rigtig dygtig og villig til at hjælpe og svare på spørgsmål.
— Nicholas Madsen Aura Energi A.M.B.A

Se også kurset Introduktion til PowerShell.

UNDERVISER

Undervisningen varetages af en erfaren underviser fra Teknologisk Instituts netværk bestående af branchens dygtigste undervisere.

Har du faglige spørgsmål så kontakt



Charlotte Heimann
+45 72203147
chhn@teknologisk.dk