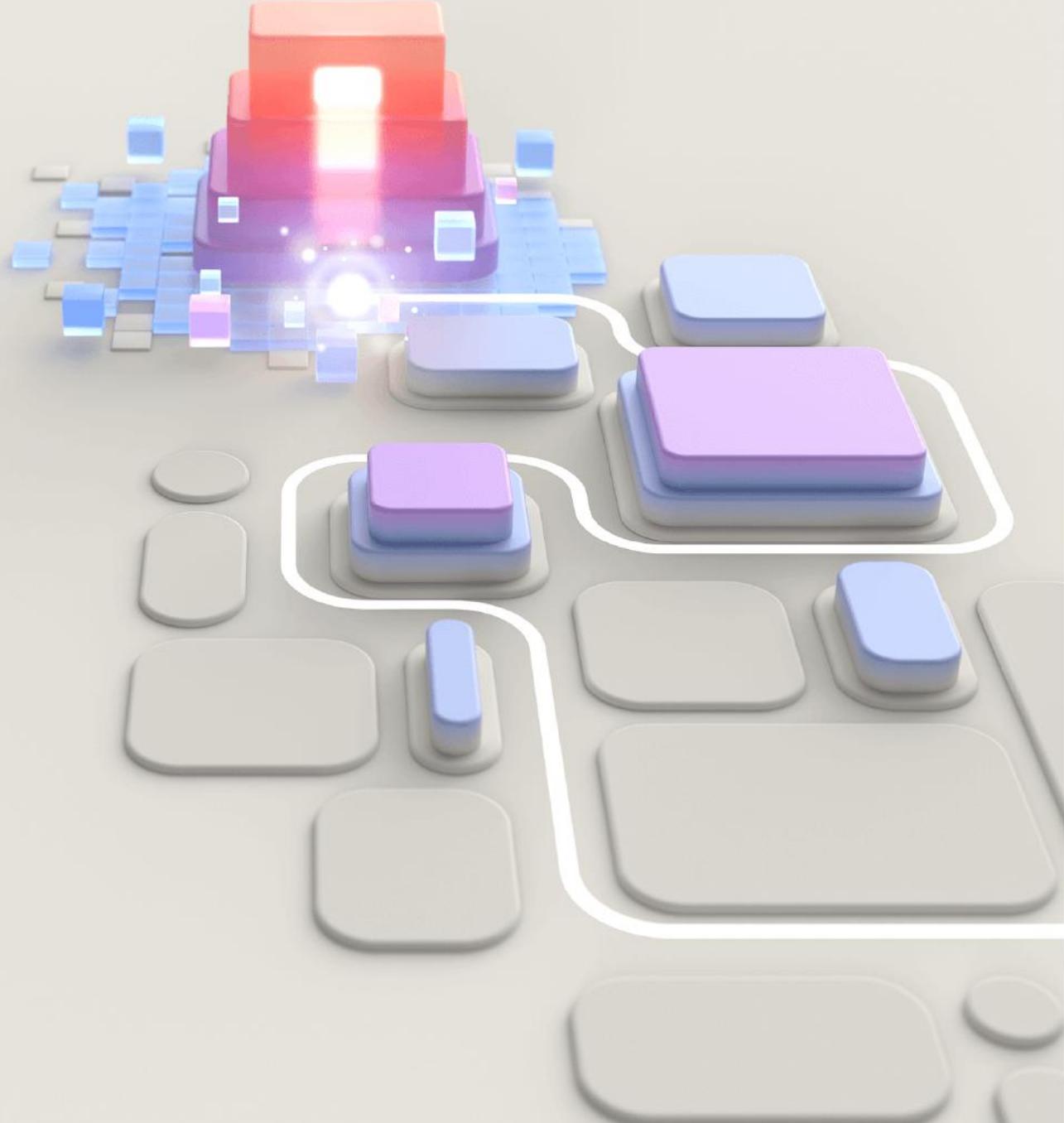




Microsoft Learn
Spark possibility

AZ-040

Automate Administration with PowerShell





ADN – Advanced Digital Network Distribution GmbH

1999 NT 4.0

2000 AD

AzureAD

Thomas Jäkel

Lead Trainer Cloud Infrastructure

Microsoft Certified Trainer since 1999

github.com/www42/AZ-040



PS + Git
GitHub



About this course

Overview

- This course teaches you how to use PowerShell to automate administration of Windows servers..


+ more

The Automating Administration with PowerShell course could be a great fit for you if you'd like to:

- Build scripts to accomplish advanced tasks such as automating repetitive tasks and generating reports.
- Automate administration across a broad range of Microsoft products, including Windows Server, Windows Client, Microsoft Azure, and Microsoft 365.

Agenda

LP 1 Get started with Windows PowerShell

PS Console
Help

LP 2 Maintain system administration tasks in Windows PowerShell

cmdlet / func

LP 3 Work with the Windows PowerShell pipeline

|

OO

LP 4 Work with PowerShell providers and PowerShell drives in Windows PowerShell

LP 5 Querying management information by using CIM and WMI

Get-ChildItem

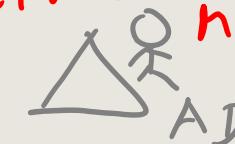
LP 6 Use variables, arrays, and hash tables in Windows PowerShell scripts

dir HKLM:

LP 7 Create and modify scripts by using Windows PowerShell

dir Cert:

LP 8 Administer remote computers by using Windows PowerShell



LP 9 Manage cloud resources by using Windows PowerShell

Azure

LP 10 Manage Microsoft 365 services by using Windows PowerShell

AzureAD
EntraID

LP 11 Create and manage background jobs and scheduled jobs in Windows PowerShell

Let's get to know
each other

Theoria cum Praxi

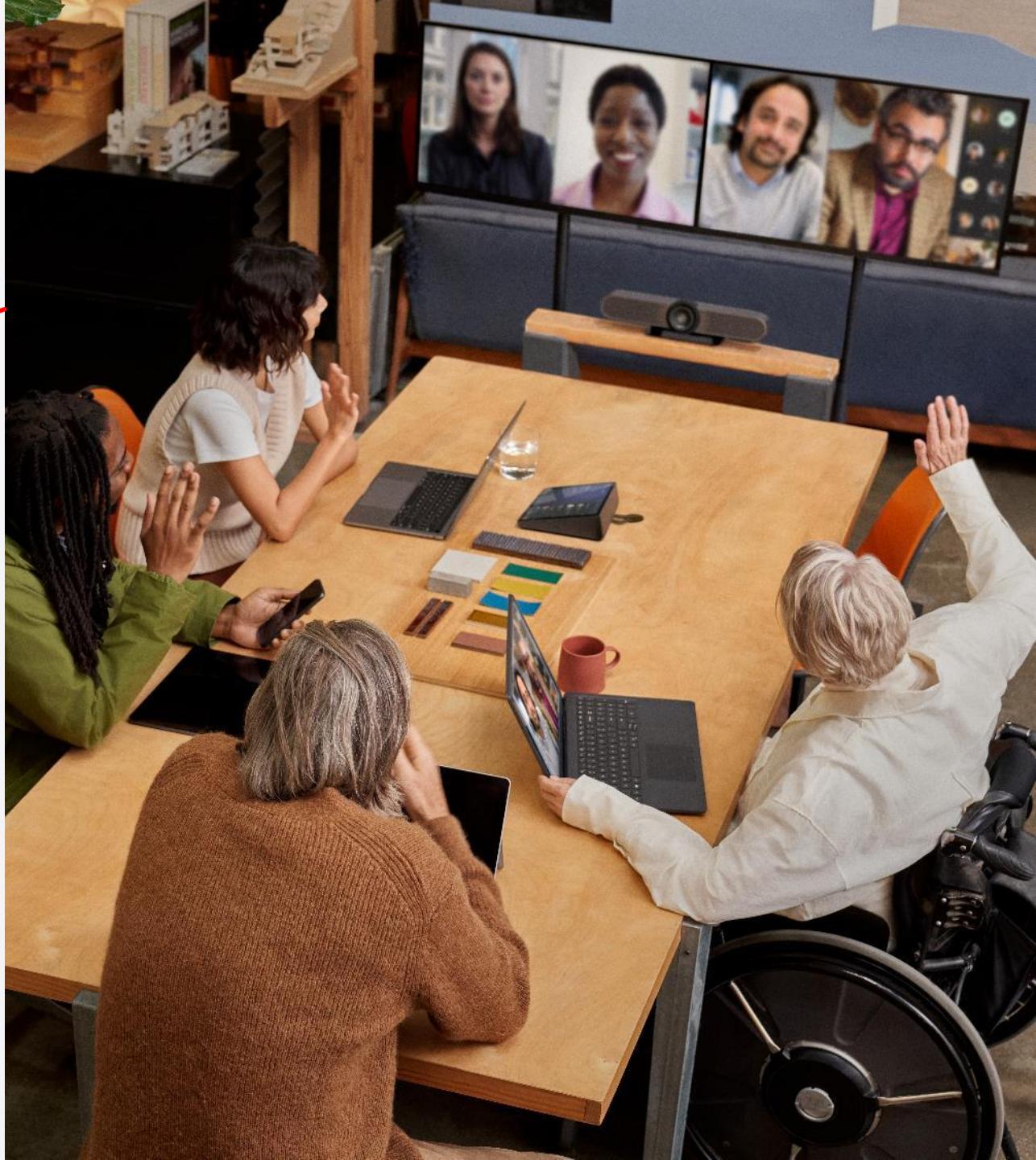
Your name

Company affiliation

Title/function

Your experience

Your expectations
for the course



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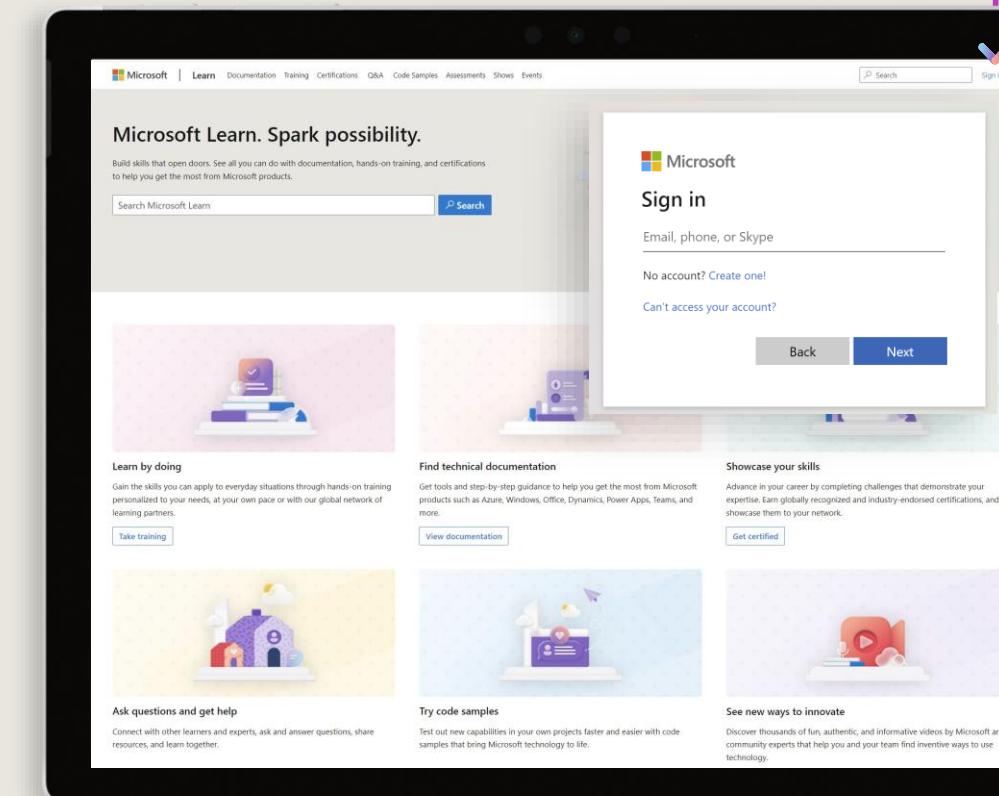
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Let's have a great time together

We all contribute to a great class

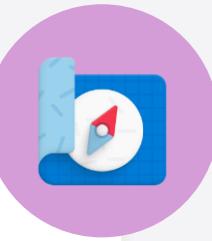
- Be on time (class hours)
- Be present (avoid mail, calls, side meetings)

9⁰⁰ 17⁰⁰
12³⁰ - 13³⁰
15 min Fr. 15⁰⁰



What you should know about our facilities

- Internet access
- Parking
- Restrooms
- Emergency



Skillable - Lab Umgebung

1/2 Jahr

A screenshot of a computer screen displaying the Skillable Lab environment. On the left, a Microsoft Edge browser window shows a PowerShell session titled "Administrator: Windows PowerShell" with the command PS C:\> \$PSVersionTable and its output. The output includes various PowerShell version details like PSVersion, PSEdition, and BuildVersion. A red wavy line is drawn across the bottom of this window. On the right, a "Lab Client" window titled "AZ-040T00 Automating Administration with Windows PowerShell" displays an exercise titled "Exercise 1: Configuring the Windows PowerShell console application". The exercise contains five tasks with numbered steps. The "Save" button in the top right corner of the exercise window is circled in red, with the word "Save" written next to it in red. The status bar at the bottom right shows "29 Hr 54 Min Remaining".

AZ-040T00 Automating Administration with Windows PowerShell - Personal - Microsoft Edge

https://labclient.labondemand.com/LabClient/8a3545a1-29f9-4f0e-9d59-bd8db8b88d5b

AZ-040T00A-LON-CL1

Recycle Bin

Administrator: Windows PowerShell

PS C:\> \$PSVersionTable

| Name | Value |
|---------------------------|-------------------------|
| PSVersion | 5.1.19041.1237 |
| PSEdition | Desktop |
| PSCompatibleVersions | {1.0, 2.0, 3.0, 4.0...} |
| BuildVersion | 10.0.19041.1237 |
| CLRVersion | 4.0.30319.42000 |
| WSManStackVersion | 3.0 |
| PSRemotingProtocolVersion | 2.3 |
| SerializationVersion | 1.1.0.1 |

PS C:\>

Exercise 1: Configuring the Windows PowerShell console application

Task 1: Start the console application as Administrator, and pin the Windows PowerShell icon to the taskbar

1. On AZ-040T00A-LON-CL1, select Start.
2. Enter powershell to display the Windows PowerShell icon. Make sure that the icon name displays Windows PowerShell and not Windows PowerShell (x86).
3. Right-click Windows PowerShell or activate its context menu, and then select Run as administrator.
4. Make sure that the window title bar reads Administrator and doesn't include the text (x86). This indicates that it is the 64-bit console application and that an administrator is running it.
5. On the taskbar, right-click the Windows PowerShell icon or activate its context menu, and then select Pin to taskbar. The Windows PowerShell console should now be open, run by Administrator, and available on the taskbar for future use.

Task 2: Configure the Windows PowerShell console application

1. To configure Windows PowerShell to use the Consolas font:
 - a. Select the control box in the upper-left corner of the Windows PowerShell console window.

Previous Next

12:30 PM
1/25/2026

29 Hr 54 Min Remaining

End of presentation

