Course Contents

AZ-040: Automating Administration with PowerShell

Duration: **5 Days**	**Level**: **Advanced**	**Role**: **Administrator**
Certification: **Not Available**	**Public Schedules**: [View Dates](#)	**Private Delivery:** [Reach Us](#)

What's included?

- ✓ Learn from Microsoft Certified Trainer (MCT's)
- ✓ 24x7 Lab Access
- ✓ Official Courseware
- ✓ Exam Preps / Practice Tests
- ✓ Badges & Completion Certificate
- ✓ Discounted Exam Vouchers

Microsoft Solutions Partner

Infrastructure
Azure

Training Services

Email: info@gtechlearn.com

Overview

This course provides students with the fundamental knowledge and skills to use PowerShell for administering and automating administration of Windows servers. This course provides students the skills to identify and build the command they require to perform a specific task. In addition, students learn how to build scripts to accomplish advanced tasks such as automating repetitive tasks and generating reports. This course provides prerequisite skills supporting a broad range of Microsoft products, including Windows Server, Windows Client, Microsoft Azure, and Microsoft 365. In keeping with that goal, this course will not focus on any one of those products, although Windows Server, which is the common platform for all of those products, will serve as the example for the techniques this course teaches.

Audience Profile

This course is intended for IT Professionals who are already experienced in general Windows Server, Windows client, Azure, and Microsoft 365 administration, and who want to learn more about using Windows PowerShell for administration. No prior experience with any version of PowerShell or any scripting language is assumed. This course is also suitable for IT Professionals already experienced in server administration, including Microsoft Exchange Server, Microsoft SharePoint Server, and Microsoft SQL Server.

Contents

Learning path 1: Get started with Windows PowerShell

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

Learning Path 2: Maintain system administration tasks in Windows PowerShell

- Manage Active Directory Domain Services using PowerShell cmdlets
- Manage network service settings for Windows devices using PowerShell cmdlets
- Manage Windows Server settings using PowerShell cmdlets
- Manage settings for a local Windows machine using PowerShell cmdlets

Learning Path 3: Working with the Windows PowerShell pipeline

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

Learning Path 4: Work with PowerShell providers and PowerShell drives in Windows PowerShell

- Connect with data stores using PowerShell providers
- Use PowerShell drives in PowerShell

Learning Path 5: Query management information by using Common Information Model and Windows Management Instrumentation

- Review CIM and WMI
- Query configuration information by using CIM and WMI
- Query and manipulate repository objects by using CIM and WMI methods

Learning Path 6: Working with variables, arrays, and hash tables

- Use variables in Window PowerShell scripts
- Manipulate variables in Window PowerShell scripts
- Work with arrays and hash tables in Window PowerShell scripts

Learning Path 7: Windows PowerShell scripting

- Create and run scripts by using Windows PowerShell
- Work with scripting constructs in Windows PowerShell
- Work with scripting constructs in Windows PowerShell
- Use methods to accept user inputs in Windows PowerShell scripts
- Troubleshoot scripts and handle errors in Windows PowerShell
- Use functions and modules in Windows PowerShell scripts

Learning Path 8: Administer remote computers with Windows PowerShell

- Manage single and multiple computers by using Windows PowerShell remoting
- Use advanced Windows PowerShell remoting techniques
- Manage persistent connections to remote computers by using Windows PowerShell sessions

Learning Path 9: Manage cloud resources by using Windows PowerShell

- Review the Azure PowerShell module
- Review the features and tools for Azure Cloud Shell
- Manage Azure resources with Windows PowerShell

Learning Path 10: Manage Microsoft 365 services by using Windows PowerShell

- Manage users, groups, and licenses in Microsoft Entra ID by using Windows PowerShell
- Manage Exchange Online by using Windows PowerShell

- Manage SharePoint Online by using Windows PowerShell

- Manage Microsoft Teams by using Windows PowerShell

Learning Path 11: Create and manage background jobs and scheduled jobs in Windows PowerShell

- Create and manage background jobs using Windows PowerShell

- Create and manage scheduled jobs using Windows PowerShell

About GTech Learn

Established in 2011 in the USA, GTech Learn is one of the leading IT training organizations in North America & South East Asia. Driven by its unique USPs, GTech Learn is spurring competition, meeting the unmet needs of customers, assisting in skills upgrade, and supplementing talent pools with its presence in the USA, Canada, Singapore and India. This is consistent with our vision to help our Learners with skills upgrade for enhanced career opportunities.

As a Microsoft Learning Partner, we offer a broad range of learning solutions across the full Microsoft technology stack that can be customized.

Since 2011, GTech Learn has been developing custom-fit learning solutions that involve creating and delivering maximum results.

We have successfully helped all types of businesses, government entities, and individuals. For this reason, GTech has chosen by Microsoft to deliver comprehensive learning programs around the globe.

With flexible learning options, state-of-the-art delivery methods, numerous language preferences, experienced instructors, and complete dedication to our students, GTech Learn has the capabilities to help students develop their Microsoft skill sets and achieve increasingly high standards of productivity while organizations of all sizes realize the full potential of their technology investments.

Our Accreditations with Microsoft

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Training Services	Training Services	Training Services