



cloudthat



Microsoft

EXAM AZ-040T00: AUTOMATING ADMINISTRATION WITH POWERSHELL

Course Level:

Advanced

Course Duration:

5 Days

Course Overview:

This Automating Administration with PowerShell certification course from CloudThat provides candidates with the fundamental knowledge and skills on how to use Windows PowerShell for administering and automating the administration of Windows servers. Candidates taking up this AZ-040T00-A course acquire skills to identify and build the command required to perform a specific task.

In addition, candidates also learn to build scripts to perform advanced tasks such as generating reports and automating repetitive tasks. This course provides candidates with prerequisite skills that are essential to using a broad range of Microsoft products, including Windows Client, Windows Server, Microsoft Exchange Server, Microsoft SQL Server, Microsoft SharePoint Server, and Microsoft System Center.



Prerequisites

- This course is designed for IT individuals who are already working in the Windows Server, Windows Client, Azure and M365 ecosystem and are eager to learn how Powershell can be used to increase the productivity of the daily tasks.
- This course begins with the basics of Powershell and its scripting.

Objectives



Describe the functionality of Windows PowerShell and use it to run and find basic commands.



Identify and run cmdlets for local system administration.



Work with the Windows PowerShell pipeline.



Use PSProviders and PSDrives to work with other forms of storage.



Query system information by using WMI and CIM.



Work with variables, arrays, and hash tables.



Write basic scripts in Windows PowerShell.



Administer remote computers with Windows PowerShell.



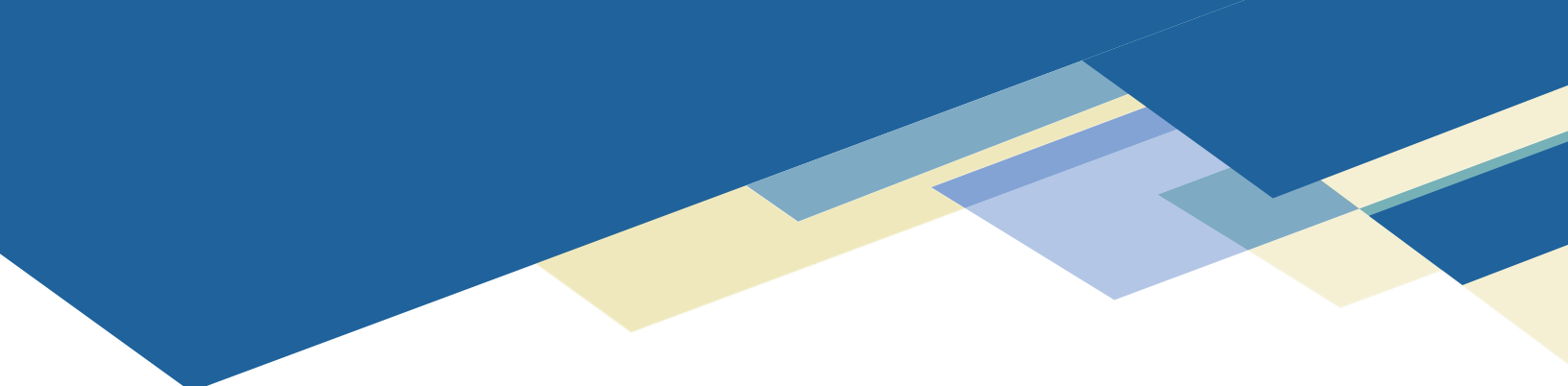
Manage Azure resources with PowerShell.



Manage Microsoft 365 services with PowerShell.



Use background jobs and scheduled jobs.



Course Outline

Module 1: Getting Started with Windows PowerShell

Lessons

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

Hands-On Lab:

- Configuring Windows PowerShell, and finding and running commands

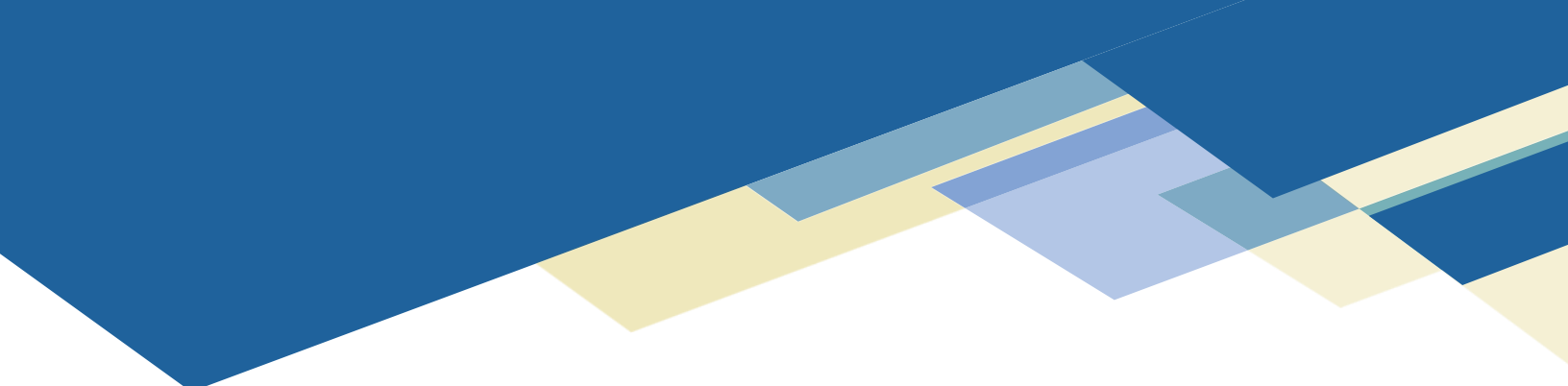
Module 2: Maintain system administration tasks in Windows PowerShell

Lessons

- 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

Hands-On Lab:

- Performing local system administration with PowerShell
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Module 3: Working with the Windows PowerShell Pipeline

Lessons

- 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

Hands-On Lab:

- Using PowerShell pipeline

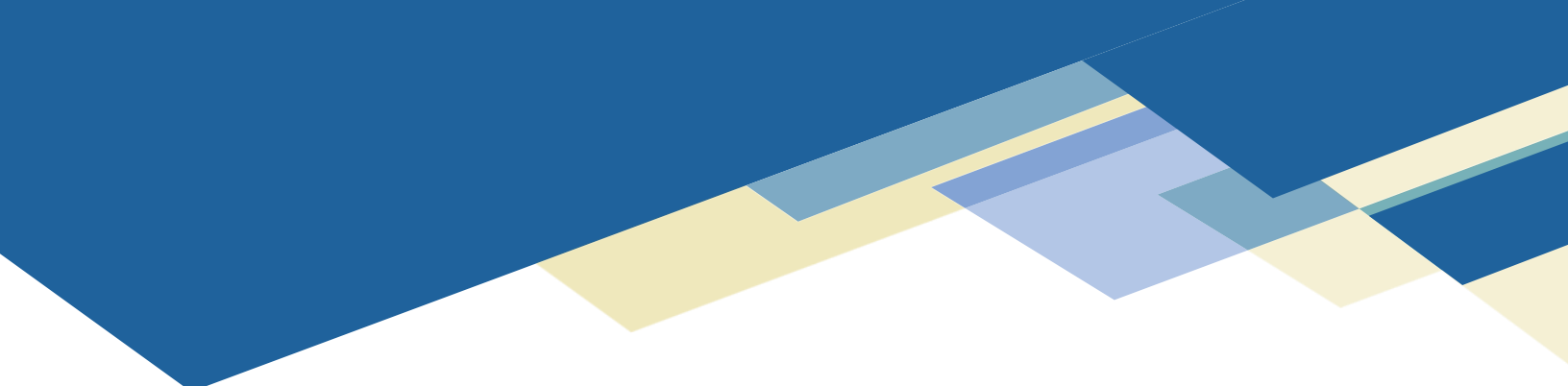
Module 4: Work with PowerShell providers and PowerShell drives in Windows PowerShell

Lessons

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

Hands-On Lab:

- Using PSProviders and PSDrives with PowerShell
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Module 5: Query management information by using Common Information Model and Windows Management Instrumentation

Lessons

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

Hands-On Lab:

- Querying information by using WMI and CIM

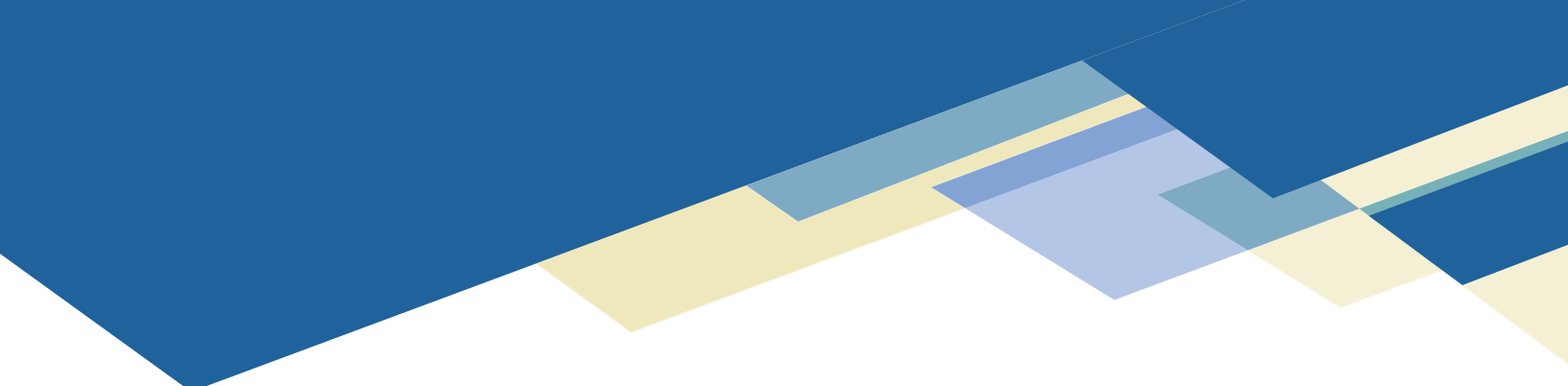
Module 6: Working with Variables, Arrays, and Hash Tables

Lessons

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

Hands-On Lab:

- Using variables, arrays, and hash tables in PowerShell
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Module 7: Windows PowerShell Scripting

Lessons

- Create and run scripts by using Windows PowerShell
- Work with scripting constructs in Windows PowerShell
- Import data in different formats for use in scripts by using Windows PowerShell cmdlets
- 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

Hands-On Lab:

- Using scripts with PowerShell

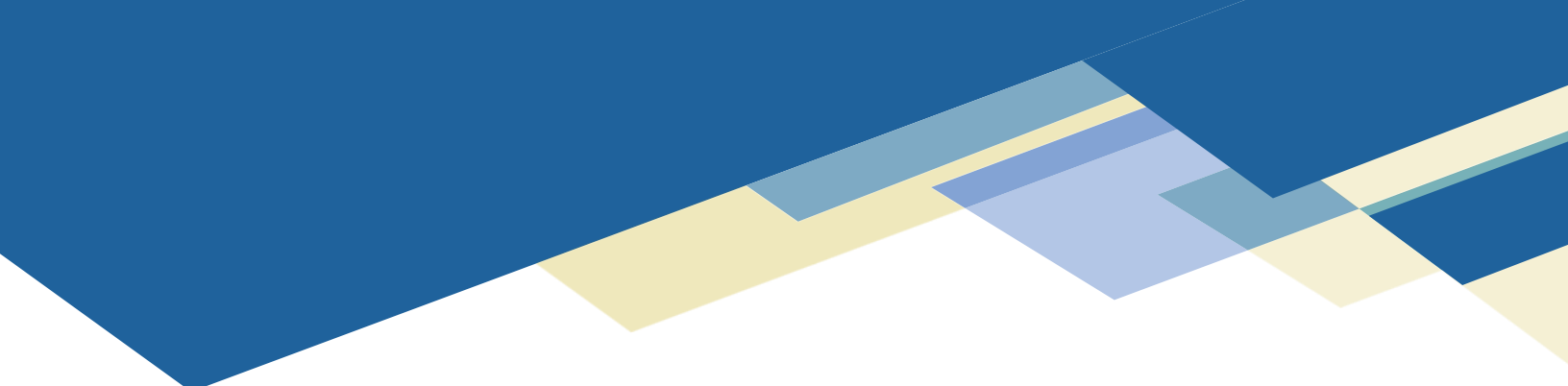
Module 8: Administer remote computers with Windows PowerShell

Lessons

- 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

Hands-On Lab:

- Performing remote administration with PowerShell
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Module 9: Manage cloud resources by using Windows PowerShell

Lessons

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

Hands-On Lab:

- Azure resource management with PowerShell

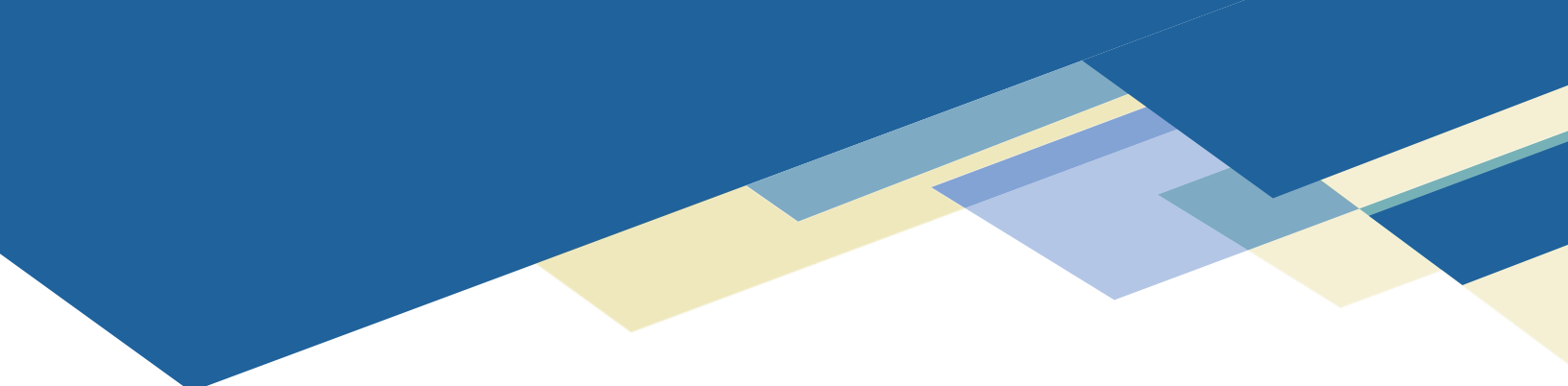
Module 10: Managing Microsoft 365 Services with PowerShell

Lessons

- 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

Hands-On Lab:

- Managing Microsoft 365 with PowerShell
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Module 11: Create and manage background jobs and scheduled jobs in Windows PowerShell

Lessons

- Create and manage background jobs using Windows PowerShell
- Create and manage scheduled jobs using Windows PowerShell

Hands-On Lab:

- Jobs management with PowerShell
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Course Outline

Who Should Attend

This AZ-040T00 certification course is intended for IT Professionals who are already experienced in general Windows Server and Windows client administration, and who want to learn more about using Windows PowerShell for administration. No prior experience with any version of Windows PowerShell or any scripting language is assumed. This course is also suitable for IT Professionals already experienced in server administration, including Exchange Server, SharePoint Server, SQL Server, and System Center.

About CloudThat

CloudThat is the first company in India to pioneer Cloud Training & Consulting services for mid-market & enterprise clients from across the globe. Since our inception in 2012, we have trained over 500K IT professionals from fortune 500 companies on technologies such as Microsoft Azure, Amazon Web Services, VMware, Artificial Intelligence, Machine Learning, Google Cloud, IoT, Dynamics 365, Power Platform, Power BI, HPE AI, DevOps, Big Data, Kubernetes, Terraform and more.

With expertise in all the major Cloud platforms, CloudThat is a proud Microsoft Gold Partner, AWS Authorized Training Partner, VMware Authorized Training Reseller, Google Cloud Platform Partner and HPE Learning Partner. Through sheer dedication and commitment towards customer excellence, we have been the winner of the Microsoft Asia Superstar Campaign for India – 2021 as well as recognized as the winner of Microsoft Learning Partner of the Year 2021 Finalist award. Recently, we have been recognized as the Microsoft 2022 Partner of the Year Finalist - Learning Award.