PowerShell: - PowerShell is a task automation framework developed by Microsoft. It is a command line shell and scripting language which system administrators use to perform several tasks. For Example: - Tasks of the operating system, server management, etc. Another reason why system admins use PowerShell is because service deployment is less complex, and it is capable of handling highly utilized services.

Now discuss some tasks that system administrators perform using PowerShell.

1] **Backup of SQL Database: -**

Database management is important for any application that uses data storage and ensuring that the data is accurate and quickly available when needed. A fundamental initial phase in this process is to continually create SQL Server database backups. Frequent backups provide a safety net, helping in the restoration of data in the event of a random outage, system collapse or data loss. By doing this, we not only protect data but also contribute significantly to a comprehensive disaster recovery plan. Having a dependable and well-planned backup plan is crucial for system administrators. Therefor they can use PowerShell script for creating an automated backup of a SQL database server. (Rahul,2023, paras. 1-7)

<https://tecadmin.net/powershell-script-to-backup-sql-server-databases/>

2] **Windows Update and restarting: -**

System administration can automate Windows update installations and system restarts with PowerShell scripts and Task Scheduler. Together, they offer an adaptable method to enhance system management. This automation makes over computer securing by installing windows updates regularly and regular updates maintain your system automatically structured and functional. We Schedule automatic restarts when systems are not likely to be used and to minimize disruptions and downtime, set up updates to occur when work is completed. PowerShell script's customization options are countless. System Administrators can modify the scripts to exclude certain updates or add requirements for specific updates. In summary, system administrators can effectively maintain the health, safety, and proper operation of their systems by using PowerShell scripts. (Dan,2020)

<https://www.techexplorer.co.uk/windows/windows-server/install-windows-updates-and-restart-using-powershell-and-task-scheduler/>

3] Windows Event Log Monitoring: -

Monitoring event logs is essential to knowing what's going on with a company's computer system. These logs include information about file modifications, significant administrative actions, and user login/logout details. To achieve this task system administrator can use PowerShell scripting because of its scripting capable for monitoring and documenting important network events. By enabling businesses to automate gathering and examining of event logs, it offers a crucial tool for security assessments. By using this technique, organizations can ensure that their systems are reliable, demonstrate that they follow the rules, and identify potential security threats early on.

<https://www.manageengine.com/products/active-directory-audit/powershell/powershell-monitor-event-log.html>

**The task which I performed.**

4] Automating email task: - Email plays a very important role in every organization or company. It’s a professional way to communicate with each other. Creating a system that uses a PowerShell script to send emails of notifications and reports could be beneficial or required. Automation reduces repetitive tasks, which may reduce time and effort. To summarize, the automation of email scripts using PowerShell can improve productivity and reliability. It may also simplify tasks like alerting notifications and provide solutions any problem. As a result, it can save system administrators time, and they can utilize this time to do other valuable items.

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