What is the difference between CMD and Powershell?

- PowerShell is a task-based scripting language, while CMD is a string-based communication interface.

- PowerShell was developed by James Truher, while CMD is a built-in command line interface in Windows.

- PowerShell has potent functions known as cmdlets, while CMD provides a set of commands for the user to interact with the computer to perform tasks.

Differences between CMD and Powershell:-

- PowerShell allows controlling the windows OS and the applications, while CMD does not.

- PowerShell's output consists of objects, unlike CMD's production, which consists of text (characters).

- PowerShell and CMD are both command line tools for Windows, but PowerShell is more advanced and powerful than CMD. PowerShell can run complex scripts and automate system administration tasks that CMD cannot. PowerShell also has new commands and features that CMD does not have.

Differences between CMD and Powershell: -

- PowerShell can access the .NET framework and Windows Management Instrumentation, while CMD cannot.

- PowerShell can use aliases, variables, functions, pipelines, and objects, while CMD can only use simple text commands.

- PowerShell can run commands from other shells like Bash or Python, while CMD can only run native Windows commands.

What are the other features in Windows that are available to administrators?

- **Computer Management**: A set of administrative tools for managing your computer, including disk management, device manager, and more.

- **Defragment and Optimize Drives**: A tool that helps optimize the performance of your hard drive by defragmenting files and freeing up space.

- **Disk Cleanup**: A tool that helps you free up space on your hard drive by removing temporary files, system files, and other unnecessary data.

Features in Windows that are available to administrators: -

- Registry Editor: A tool that allows you to view and edit the Windows registry, which contains information about your system's hardware, software, and configuration settings.

- Services: A tool that allows you to manage the services running on your computer, including starting, stopping, and configuring them.

- System Information: A tool that provides detailed information about your computer's hardware and software configuration.

Features in Windows that are available to administrators: -

- Task Scheduler: A tool that allows you to schedule tasks to run automatically at specified times or events.

- Windows Memory Diagnostic: A tool that checks your computer's memory for errors and other issues.

What is the system registry and how can it be accessed in Windows?

The system registry is **a hierarchical database** that stores configuration settings and options for the operating system and installed applications on a Windows computer.

It contains information about hardware, software, user preferences, and more.

To access the registry editor in Windows, you can use one of the following methods:

- Type **regedit** in the Windows search box on the taskbar and press Enter. If prompted by User Account Control, click Yes to open the Registry Editor.

- Press the **Win + S keys** at the same time. Input the keyword Control Panel in the search box. Click Control Panel to open it. Select Category on the View by menu. Click the System and Security category. Then select the Windows Tools applet to open it. Right-click Registry Editor in Windows Tools and select Run as administrator.

What is the difference between Windows 10 and 11?

Windows 11 is the latest version of the Windows operating system, released by Microsoft in October 2021.

It comes with a new user interface (UI), redesigned Start Menu and Taskbar, improved touch controls, enhanced security features, and integrated widgets for quick access to information.

Differences between Windows 10 and 11

- **User Interface**: Windows 11 has a new user interface that includes a redesigned Start Menu and Taskbar. The Start Menu is now centered on the screen and features a grid of app icons. The Taskbar is also centered and features new icons for the Start button, Task View, and Search.

- **Touch Controls**: Windows 11 has improved touch controls that make it easier to use on devices with touchscreens. The touch keyboard has been redesigned and includes new features like voice typing and GIF search.

Differences between Windows 10 and 11

- **Widgets**: Windows 11 includes integrated widgets that provide quick access to information like news, weather, and sports scores. Widgets can be customized to show the information you care about most.

- **Security**: Windows 11 includes enhanced security features like hardware-based isolation for sensitive data, secure boot, and secure hardware-based storage for encryption keys.

- **Compatibility**: Windows 11 has more stringent system requirements than Windows 10. For example, it requires a processor that supports at least AVX2 instruction set, TPM version 2.0, UEFI firmware with Secure Boot capability, and at least 4 GB of RAM.