**What is the terminal?**

Terminal is an application that lets you **interact with your computer**, through the use of commands.

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| **Windows Command** | **Function** |
| ipconfig | This allows you to find your computer’s IP address. |
| ipconfig /all | This allows you to find your computer’s IP address, MAC address, DNS server etc. |
| ipconfig /all | findstr <string-parameter> | This allows you to find your computer’s IP address, MAC address, DNS server etc and further filter info e.g ipconfig /all | findstr DNS |
| ipconfig /release | This command would release the current IP address. |
| ipconfig /renew | This command would reach out to the DHCP server and renew or issue a new IP address.  Additionally, the interface can be specified after the command e.g ipconfig /renew “Wi-Fi” |
| ipconfig /displaydns | This would display all the websites the dns knows about and their ip addresses. |
| | clip | This command would copy the output of command to the clipboard.  e.g ipconfig /displaydns | clip |
| ipconfig /flushdns | This would completely delete the DNS resolver cache and remove old dns entries. |
| nslookup | This is used to find the DNS server, IP address etc that corresponds to a host e.g nslookup google.com |
| cls | This command would clear the screen. |
| getmac /v | This command would allow you to get you MAC Address. |
| powercfg /energy | This would allow you to see if you have any energy or power issues with your computer. |
| powercfg /batteryreport | This would allow you to see if you have battery issues with your computer. |
| assoc | Shows which file types are associated with which programs. |
| assoc <file-type-here>=<program-here> | This allows you to set which program would open a certain file type. |
| chkdsk /f | This would scan disk and determine whether or not they are any errors. |
| chkdsk /r | This would check for physical sector issues in the disk. #May need a reboot and possibly take a long time# |
| sfc /scannow | System file checker, this would check the files on the system, replace and fix them if there are issues. |
| DISM /Online /Cleanup /CheckHealth | Deployment image servicing and management that would fix the system image. This would do a checkup. |
| DISM /Online /Cleanup /ScanHealth | This would do a longer and deeper scan |
| DISM /Online /Cleanup /RestoreHealth | If there are issues this would attempt to restore health. |
| tasklist | This would list all of your tasks,  e.g tasklist | findstr script |
| taskkill | This would kill a task.  /f would be used to force and /pid would be used to specify the ID.  e.g taskkill /f /pid 11111 |
| netsh wlan show wlanreport  netsh interface show interface  netsh interface ip show address | findstr “IP Address”  netsh interface ip show dnsservers  netsh advfirewall set allprofiles state off  netsh advfirewall set allprofiles state on | This command allows you to configure and display the status of various network communications. |
| ping | This command can be used to ensure that servers and websites are up.  e.g ping google.com |
| ping -t | This would continuously ping a server. |
| tracert | This would trace the path to a website along each router it takes to get there. It would tell you if such is up or how long it takes.  e.g tracert google.com |
| tracert -d | This would not resolve domain names and make the process a little faster. |
| netstat | This would tell you what you are connected to and what’s connected to you. |
| netstat -af | This would tell you what ports you have open. |
| netstat -o | This shows the process ID’s for all connections. |
| netstat -e -t 5 | This would give you network statistics or sent/received statistics. |
| route print | This would show the routes your computer would take to get to certain networks. Gateways/routing tables of the computer. |
| route add | You can add routes to the computer. |
| route delete | You can delete routes. |
| shutdown /r /fw /f /t 0 | Shutdown the computer and restart it into the system BIOS. |