Windows 11 Command Line

System Diagnostics & Repair	
whoami	Show current username
ver	Shows the current Windows version
systeminfo	Detailed system specs
hostname	Show computer name
chkdsk C: /f	Scan and fix disk errors
sfc /scannow	Scan and fix system files
cleanmgr	Launch Disk Cleanup

Resetting Network Adapter	
Winsock reset command restarts the communication required between your device and the network. (Run as administrator in **Command Prompt (CMD)**)	
1. Type **netsh winsock reset** and select **Enter**	
2. Type **netsh int ip reset** and select **Enter**.	
3. Type **ipconfig /release** and select **Enter**.	
4. Type **ipconfig /renew** and select **Enter**.	
5. Type **ipconfig /flushdns** and select **Enter**.	

Ipconfig	
Ipconfig displays all current TCP/IP network configuration, including DHCP and DNS settings refresh. Without parameters, it displays IPv4 & IPv6 addresses, subnet mask, and default gateway for all adapters. It also flushes and resets the DNS client resolver cache.	
ipconfig	To display the basic TCP/IP configuration
Ipconfig /all	To display the full TCP/IP configuration
ipconfig /flushdns	To flush the DNS resolver cache
ipconfig /release & ipconfig /renew	To release and renew IP address
ipconfig /displaydns	To display DNS settings
ipconfig /registerdns	To resolve DNS conflicts

Route	
The route command is primarily used to configure and manage IP routing tables which determine how data packets are forwarded between different networks.	
route print	To display the entire contents of the IP routing table
route add -p 0.0.0.0 mask 255.255.255.0 192.168.1.1	To add a default route with the default gateway address of 192.168.1.1 The **-p** makes the route persistent.
route change	Modify an existing route.
route delete -p	Delete a route associated with a specific interface.

Power & Battery Tools	
powercfg /energy	Generate power efficiency report
powercfg /batteryreport	Battery health report

How to ping a website	
Ping allows a user to test and verify if a particular destination IP address exists and can accept requests in computer network administration.	
ping google.com	Ping Google website
ping 8.8.8.8	Ping Google website (via IP address)

Tracert Diagnostic Utility	
The **TRACERT diagnostic utility** determines the route to a destination by sending Internet Control Message Protocol (ICMP) echo packets to the destination.	
tracert -d google.com	
tracer /4/d www.microsoft.com	

DiskPart	
The **diskpart** command helps one manage computer's drive (disk, partitions, volumes, or virtual hard disks. Here is the Microsoft link.	

Windows Package Manager (Winget)	
The **winget** command-line tool is a power tool for managing software packages. For more information, visit Microsoft here. Winget normally comes preinstalled on Windows 11. It can be downloaded via the Microsoft Store or Github.	
winget list	Shows list of all applications
winget search <app_name>	Search for an application
winget install <app_name>	Install an application
winget uninstall <app_name>	Uninstall an application
winget upgrade <app_name>	Upgrade an application
winget upgrade –all	Upgrade all applications

Task & Process Management	
tasklist	List running processes
taskkill /IM processname.exe /F	Force kill a process
shutdown /r /f /t 0	Immediate shutdown
shutdown /r /t 0	Immediate restart
shutdown /r /fw /t 0	Restarts into BIOS

Name Server Lookup	
Nslookup is used to obtain domain name or IP address information	
nslookup www.example.com	Query a domain
nslookup 8.8.8.8	Query an IP address
nslookup www.example.com 8.8.4.4	Set DNS Server

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