

## 2. Windows Commands

### CMD Commands

#### Navigation

- **cd** -> Shows the current directory or changes to the specified directory.
- **dir** -> Lists the contents of the directory.
- **cd ..** -> Moves up one level in the directory.
- **tree** -> Shows the directory structure as a tree.
- **where archivo.txt** -> Searches for files or directories in the PATH.

#### Directory Management

- **mkdir nombre** -> Creates a new directory.
- **rmdir nombre** -> Removes an empty directory.
- **rmdir /s nombre** -> Removes a directory and its contents.

#### File Management

- **type archivo.txt** -> Displays the contents of a file.
- **copy origen destino** -> Copies a file.
- **move origen destino** -> Moves or renames a file.
- **del archivo.txt** -> Deletes a file.
- **echo texto > archivo.txt** -> Creates a file with the specified text.
- **ren archivo1 archivo2** -> Renames a file.

#### User Management

- **net user** -> Lists system users.
- **net user nombre /add** -> Adds a new user.
- **net user nombre /delete** -> Deletes a user.
- **net user nombre contraseña** -> Changes a user's password.

#### Group Management

- **net localgroup** -> Lists local groups.
- **net localgroup grupo /add** -> Creates a new group.
- **net localgroup grupo /delete** -> Deletes a group.

- `net localgroup grupo usuario /add` -> Adds a user to a group.
- `net localgroup grupo usuario /delete` -> Removes a user from a group.

## Network Management

- `ipconfig` -> Displays network configuration.
- `ipconfig /all` -> Displays detailed network information.
- `ping ip/url` -> Verifies connectivity with a host.
- `tracert ip/url` -> Shows the route that packets take to reach a destination.
- `netstat` -> Displays active network connections.
- `arp -a` -> Displays the ARP table.

## Process Management

- `tasklist` -> Displays running processes.
- `taskkill /PID número /F` -> Terminates a process by its ID.
- `taskkill /IM nombre.exe /F` -> Terminates a process by its name.

## System Information

- `systeminfo` -> Displays detailed system information.
- `hostname` -> Displays the computer name.
- `echo %username%` -> Displays the current user.
- `ver` -> Displays the operating system version.

## Additional Commands

- `cls` -> Clears the console screen.
- `shutdown /s /t 0` -> Shuts down the system.
- `shutdown /r /t 0` -> Restarts the system.
- `echo %errorlevel%` -> Displays the exit code of the last command.
- `assoc` -> Displays file associations.
- `fc archivo1 archivo2` -> Compares the contents of two files.
- `find "texto" archivo.txt` -> Searches for text within a file.

## PowerShell Commands

### Navigation

- `Get-Location` -> Shows the current directory.
- `Set-Location` -> Changes to the specified directory.

- **Get-ChildItem** -> Lists the contents of the directory.
- **Resolve-Path archivo.txt** -> Shows the absolute path of a file.

## Directory Management

- **New-Item -ItemType Directory -Path nombre** -> Creates a new directory.
- **Remove-Item nombre** -> Removes a directory.
- **Remove-Item -Recurse nombre** -> Removes a directory and its contents.

## File Management

- **Get-Content archivo.txt** -> Displays the contents of a file.
- **Copy-Item origen destino** -> Copies a file.
- **Move-Item origen destino** -> Moves or renames a file.
- **Remove-Item archivo.txt** -> Deletes a file.
- **Set-Content archivo.txt "texto"** -> Creates a file with the specified text.
- **Rename-Item archivo1 archivo2** -> Renames a file.

## User Management

- **Get-LocalUser** -> Lists system users.
- **New-LocalUser -Name "nombre" -Password (ConvertTo-SecureString "contraseña" -AsPlainText -Force)** -> Adds a new user.
- **Remove-LocalUser -Name "nombre"** -> Deletes a user.
- **Set-LocalUser -Name "nombre" -Password (ConvertTo-SecureString "contraseña" -AsPlainText -Force)** -> Changes a user's password.

## Group Management

- **Get-LocalGroup** -> Lists local groups.
- **New-LocalGroup -Name "grupo"** -> Creates a new group.
- **Remove-LocalGroup -Name "grupo"** -> Deletes a group.
- **Add-LocalGroupMember -Group "grupo" -Member "usuario"** -> Adds a user to a group.
- **Remove-LocalGroupMember -Group "grupo" -Member "usuario"** -> Removes a user from a group.

## Network Management

- **Get-NetIPAddress** -> Displays network configuration.
- **Test-Connection ip/url** -> Verifies connectivity with a host.
- **Test-NetConnection ip/url** -> Displays connectivity information.

- **Get-NetTCPConnection** -> Displays active TCP connections.
- **Get-NetNeighbor** -> Displays the ARP table.

## Process Management

- **Get-Process** -> Displays running processes.
- **Stop-Process -Id número** -> Terminates a process by its ID.
- **Stop-Process -Name "nombre"** -> Terminates a process by its name.

## System Information

- **Get-ComputerInfo** -> Displays detailed system information.
- **\$env:COMPUTERNAME** -> Displays the computer name.
- **\$env:USERNAME** -> Displays the current user.
- **[System.Environment]::OSVersion** -> Displays the operating system version.

## Additional Commands

- **Clear-Host** -> Clears the console screen.
- **Stop-Computer** -> Shuts down the system.
- **Restart-Computer** -> Restarts the system.
- **\$LASTEXITCODE** -> Displays the exit code of the last command.
- **Get-Command** -> Displays available commands.
- **Select-String -Path archivo.txt -Pattern "texto"** -> Searches for text within a file.