What is PowerShell?

- PowerShell is Microsoft's command-line shell and scripting language.
- we can use powershell for automation, system administration and
configuration management.

- it is based on .NET -> works with objects, not just text
- Provides cmdlet (command-lets) -> small, built-in commands with a standard
format
        verb-noun (ex. Get-Process, Get-Help, Get-Process)
- It supports scripting with loops, functions and error handling

- works with windows and other OS where PowerShell core is available.
- You can manage local and remote systems using PowerShell

Get-Help   Shows Help for cmdlets
Get-Command   Lists all available cmdlets/functions.
Get-Member   Shows properties & methods of objects.

SYSTEM/PROCESS MANAGEMENT

Get-Process   List running processes
Stop-Process -Id <PID>   Kills a process
Start-Process notepad.exe   Starts a program (ex. here it will start
notepad)

SERVICE MANAGEMENT

Get-Service   View System Services
Start-Service SERVICE_NAME   To start service
Stop-Service SERVICE_NAME   To stop service
Restart-Service Service_name   To restart service

FILE & FOLDER MANAGEMENT

Get-ChildItem   (alias:ls,dir) List files/folders
Set-Location   (alias:cd)   Change Directory
Copy-Item   Copy file/folder
Move-Item   Move file/folder
Remove-Item   Remove File/folder
New-Item -ItemType File -Name "Tinku.txt"   To create new tinku.txt
Get-Content tinku.txt   View file content
Set-Content tinku.txt "Tinku"   Write to file
Add-Content tinku.txt "Pinky"   Append to file.

USER & GROUP MANAGEMENT

Get-LocalUser   List local users
New-LocalUser -Name "gabbar" -Password (ConvertTo-SecureString 'Admin@123')
To create a user
Get-LocalGroup   List local Groups
Add-LocalGroupMember -Group "Administrators" -Member "gabbar"   -> Add gabbar
to Administrator Group

EVENT LOGS & SYSTEM INFO

```
-------------
Get-EventLog -LogName System -Newest 10         Show last 10 system logs
Get-EventLog -LogName Security -Newest 50       Show last 50 Security Logs
Get-ComputerInfo                                Get Full system Info


NETWORKING
---------------
Test-Connection google.com      (alias: ping)
Get-NetIPAddress                Shows IP details
Get-NetAdapter                  Show Network Adapters


PACKAGE MANAGEMENT
---------------
Find-Module                     Search for Modules (like apt search)
Install-Module -Name NAME       Install particular module on Windows Server
Get-WindowsFeature              Check the status
Install-WindowsFeature  -Name 'DHCP'    To install feature on Windows Server
IncludeManagementTools          Management tools will get installed along with
Windows Feature or Roles



Install with using Configuration Deployment File

Install-WindowsFeature -ConfigurationFilePath PATH
```