

# ASSIGNMENT-4

Name: Rahul kumar

Batch Start Date: 2025-08-04

Batch Name: WiproNGA\_DWS\_B5\_25VID2550

User ID: 34722

## Understanding PowerShell Cmdlets

Cmdlets are the basic, lightweight commands in the Windows PowerShell environment. They are designed to work in conjunction with the pipeline, processing objects as input and outputting objects. Cmdlets are named using a “Verb-Noun” format, where the verb represents the action and the noun represents the object of that action.

## Key Characteristics of Cmdlets

- **Verb-Noun Naming:** Cmdlet names are structured as “Verb-Noun” pairs, clearly indicating the action and the target object (e.g., Get-Process, Start-Service, New-Item).
- **Pipeline-Oriented:** Cmdlets are designed to work with the PowerShell pipeline, meaning they can be chained together to perform complex tasks.
- **Object-Oriented:** Cmdlets process and output objects, not just text streams. This allows for more flexible and powerful scripting.
- **Built-in and Custom:** PowerShell includes a vast library of cmdlets for various tasks, and you can also create your own custom cmdlets.
- **Not Executables:** Cmdlets are not standalone executable files but are part of PowerShell’s core functionality.

## How Cmdlets Work

- **Input:** Cmdlets can receive input from the pipeline (other cmdlets or data streams) or can be provided with input directly as parameters.
- **Processing:** They perform a specific action on the input, based on their verb and noun.
- **Output:** Cmdlets return objects as output, which can then be piped to subsequent cmdlets in the pipeline.

## Example

The `Get-Process` cmdlet retrieves information about running processes. You can use it to get a list of all processes, filter them based on specific criteria, and then pipe the results to another cmdlet like `Sort-Object` to sort the list.

## Some Screenshot

```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help

PS C:\Users\Rahul Kumar> get-process

Handles   NPM(K)    PM(K)      WS(K)      CPU(s)     Id   SI ProcessName
-----
195        11        3672       3136        0.30      4452  0 AggregatorHost
235        16        22536      244         1.30     16040  2 ai
153        10        2576        4         0.00      2912  0 amd64.sys
170        12        2340       800         0.52     21580  2 amd64.sys
35934      22        6740      3056       305.47    19120  2 AMDRSServ
1031       44       124460     1852        1.38     21596  2 AMDRSSrcExt
598        30       233056    13148       59.34     35108  2 aomhost64
298        17       16500     3452        0.86     11392  2 AppActions
1307       30       35384     9380       13.67    19676  2 ApplicationFrameHost
374        18        4972       2980        0.00     22700  2 atieclxx
218        11        2012        360        0.00      2980  0 atiesrxx
577        17       22184    13248       869.23     6700  0 audiodg
196        13       2880       2444        1.55    15884  2 AutoModeDetect
249        27       7540      2484        0.83     8368  2 backgroundTaskHost
342        32      14948    14084        0.80     27220  2 backgroundTaskHost
687        45     40388     5640        3.48    14024  2 BatteryWidgetHost
575        25     55088     4260        2.78     5480  2 chrome
224        16     10500     5224        2.16     7180  2 chrome
308        24     32364     2052        2.00     8812  2 chrome
312        25     48052     2052        1.41    11016  2 chrome
313        25     58296     2156        2.47    12648  2 chrome
489        37     25504    28084       49.88    13344  2 chrome
504        26     52924     3496        1.58    14232  2 chrome
336        26     41376     2104        1.50    14896  2 chrome
1254       31     38604     4592        1.80    15736  2 chrome
357        33     55364     2820        1.95    17108  2 chrome
530        43    198996    69036       60.91    17676  2 chrome
344        28     64604    12184        4.03    19064  2 chrome
312        23     23704     2032        0.48    19556  2 chrome
420        35    143608    48944       72.52    20508  2 chrome
588        52    222996    47924       25.77    24720  2 chrome
2766       62    474936   104228      157.55    25780  2 chrome
2503       98    163100   104896     235.77    25952  2 chrome
438        39    105356     8304       53.80    27136  2 chrome
262        21     23936     2012        0.42    27688  2 chrome
318        10      2308      1220        0.13    27772  2 chrome
274        17      8404      2104        3.31    27876  2 chrome
316        24     38204     2980        1.16    28008  2 chrome
```