

# PowerShell Scripting

## 1. PowerShell Commands:

- **get-help** : Displays information about Windows PowerShell commands and concepts.
- **Get-Process** : To retrieve information about running processes on a system.
- **Get-Command** : To retrieve information about cmdlets, functions, scripts, and executables available in the session.
- **Get-Command Get-Process** : Retrieves details about the Get-Process cmdlet.
- **Stop-Process -id <number>** : Used to stop a process with the id.
- **Get-Service** – Retrieves information about system services.
- **stop-service <serviceName>** : To stop a service .

## 2. Creating Files and Directories:

### Creating a new Folder:

```
New-Item -ItemType Directory -Path "D:\AzureDevops\PStest1"
```

Name	Date modified	Type	Si:
MyTestFolder	17-03-2025 14:56	File folder	
PStest1	17-03-2025 14:56	File folder	
creatingFileFolder	17-03-2025 14:56	Windows PowerSh...	
powershellCommands	17-03-2025 14:56	Windows PowerSh...	
shellScripting	17-03-2025 14:56	Windows PowerSh...	

### Creating a File:

```
New-Item -ItemType File -Path "D:\AzureDevops\PStest1\sample.txt"
```

```
New-Item -ItemType File -Path "D:\AzureDevops\PStest1\sample1.txt" -Force
```

sample	17-03-2025 14:56	Text Document
sample1	17-03-2025 14:56	Text Document

### Writing into a File:

```
Set-Content -Path "D:\AzureDevops\PStest1\sample.txt" -Value "This is  
Priya_gowtami"
```



#### Get content from File:

```
Get-Content -Path "D:\AzureDevops\PStest1\sample.txt"
```

#### Removing Files from a directory:

```
Remove-Item -Path "D:\AzureDevops\PStest1\sample1.txt"
```

#### List out files in a directory:

```
Get-ChildItem "D:\AzureDevops\PStest1"
```

#### Remvoing a folder/directory

```
New-Item -ItemType Directory -Path "D:\AzureDevops\PStest2"
```

```
New-Item -ItemType File -Path "D:\AzureDevops\PStest2\sample2.txt"
```

```
Remove-Item -Path "D:\AzureDevops\PStest2" -Force
```

#### Copying Files:

```
Copy-Item -Path "D:\AzureDevops\PStest1\sample.txt" -Destination
```

```
"D:\AzureDevops\PStest1\sample1.txt"
```

```
Get-Content -Path "D:\AzureDevops\PStest1\sample1.txt"
```

### 3. Shell Scripting:

- **creating a variable**

```
$var = "value"
```

**\$var** – used to print the value

**Write-Host \$var** – Displays the value

```
$Age = Read-Host "Enter your age?" #read input from user
```

- **if conditional script:**

```
$number = 10
```

```
if($number -gt 5)
```

```
{
```

```
Write-Host "$($Number) is greater than 5" #get variable value inside ""
```

```

}
elseif($number -eq 5)
{
    Write-Host "Number is equal to 5"
}
else
{
    Write-Host "$($Number) is less than 5"
}

```

#### Output:

```

PS C:\Users\gouth>
$number = 10
if($number -gt 5)
{
    Write-Host "$($Number) is greater than 5" #get variable value inside ""
}
elseif($number -eq 5)
{
    Write-Host "Number is equal to 5"
}
else
{
    Write-Host "$($Number) is less than 5"
}
10 is greater than 5

```

- **for loop script**

To write a script that creates 5 files which are of the same format using loops

```

$folderName = "MyTestFolder"
$folderPath = Join-Path -Path "D:\AzureDevops\10-3-25Day1PS"
                -ChildPath $folderName
#D:\AzureDevops\10-3-25Day1PS\MyTestFolder
if(-not (Test-Path -Path $folderPath))
{
    New-Item -ItemType directory -Path $folderPath | Out-Null
    Write-Host "created folder: $($folderPath)"
}

```

```






else
{
    Write-Host "Folder already exists: $($folderPath)"
}

create 5 files within that folder with date and time as file name and add content
for($i=1;$i -le 5;$i++)
{
    $dateTime = Get-Date -Format "yyyy-MM-dd"
    $fileName = "file_$( $dateTime )_$( $i ).txt"
    $filePath = Join-Path -Path $folderpath -ChildPath $fileName
    create file
    New-Item -ItemType File -Path $filePath -Force | Out-Null
    set content
    $fileContent = "softwareGurukulam_$( $fileName )"
    Set-Content -Path $filePath -Value $fileContent

    Write-Host "created file: $($filePath) with content: $($fileContent)"
}

```

### Output:

Name	Date modified	Type	Size
 file_2025-03-11_1	17-03-2025 14:56	Text Document	1 KB
 file_2025-03-11_2	17-03-2025 14:56	Text Document	1 KB
 file_2025-03-11_3	17-03-2025 14:56	Text Document	1 KB
 file_2025-03-11_4	17-03-2025 14:56	Text Document	1 KB
 file_2025-03-11_5	17-03-2025 14:56	Text Document	1 KB