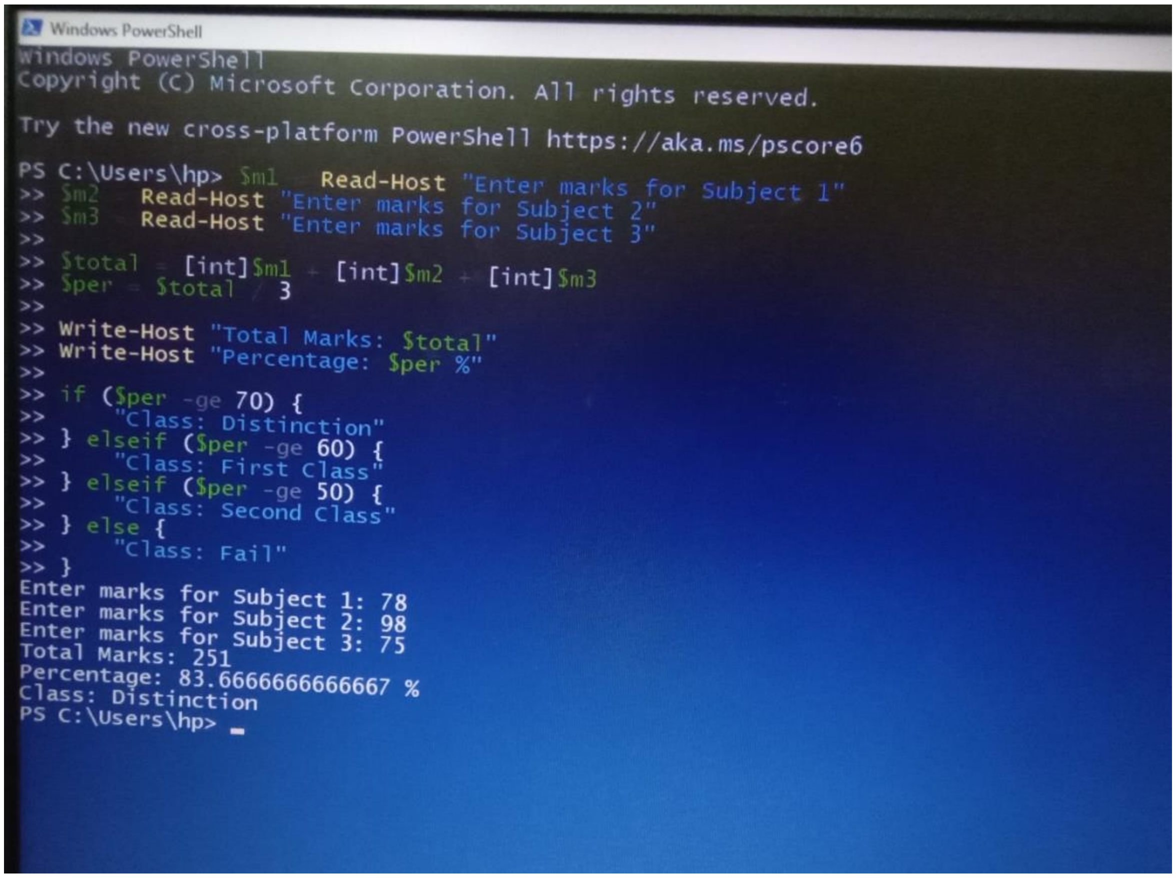
1. Write a shell script to generate mark- sheet of a student. Take 3 subjects, calculate and display total marks, percentage and class obtained by the student



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp> $m1 = Read-Host "Enter marks for Subject 1"
>> $m2 = Read-Host "Enter marks for Subject 2"
>> $m3 = Read-Host "Enter marks for Subject 3"
>>
>> $total = [int]$m1 + [int]$m2 + [int]$m3
>> $per = $total / 3
>>
>> Write-Host "Total Marks: $total"
>> Write-Host "Percentage: $per %"
>>
>> if ($per -ge 70) {
>>     "Class: Distinction"
>> } elseif ($per -ge 60) {
>>     "Class: First Class"
>> } elseif ($per -ge 50) {
>>     "Class: Second Class"
>> } else {
>>     "Class: Fail"
>> }
Enter marks for Subject 1: 78
Enter marks for Subject 2: 98
Enter marks for Subject 3: 75
Total Marks: 251
Percentage: 83.6666666666667 %
Class: Distinction
PS C:\Users\hp> _
```
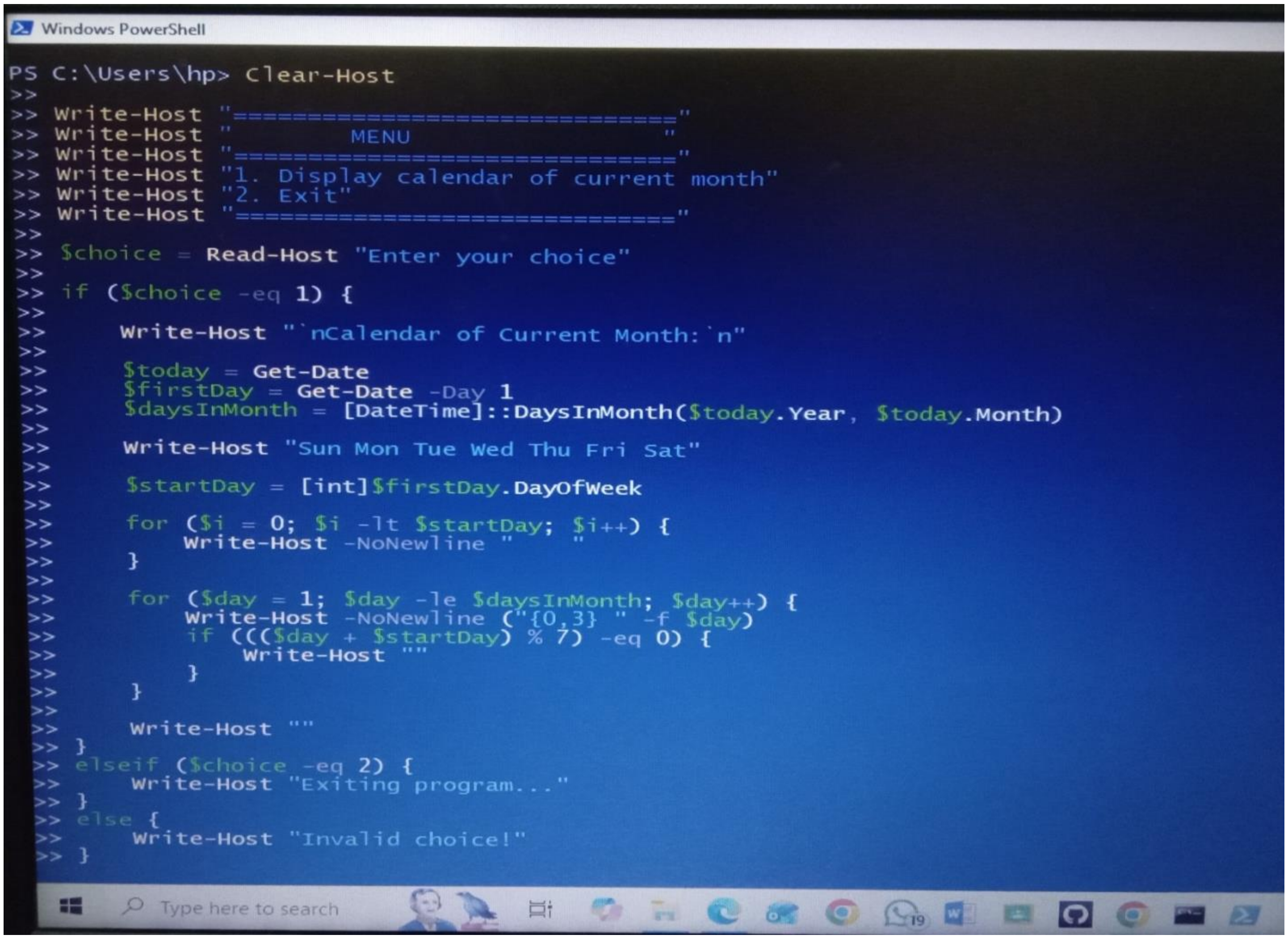
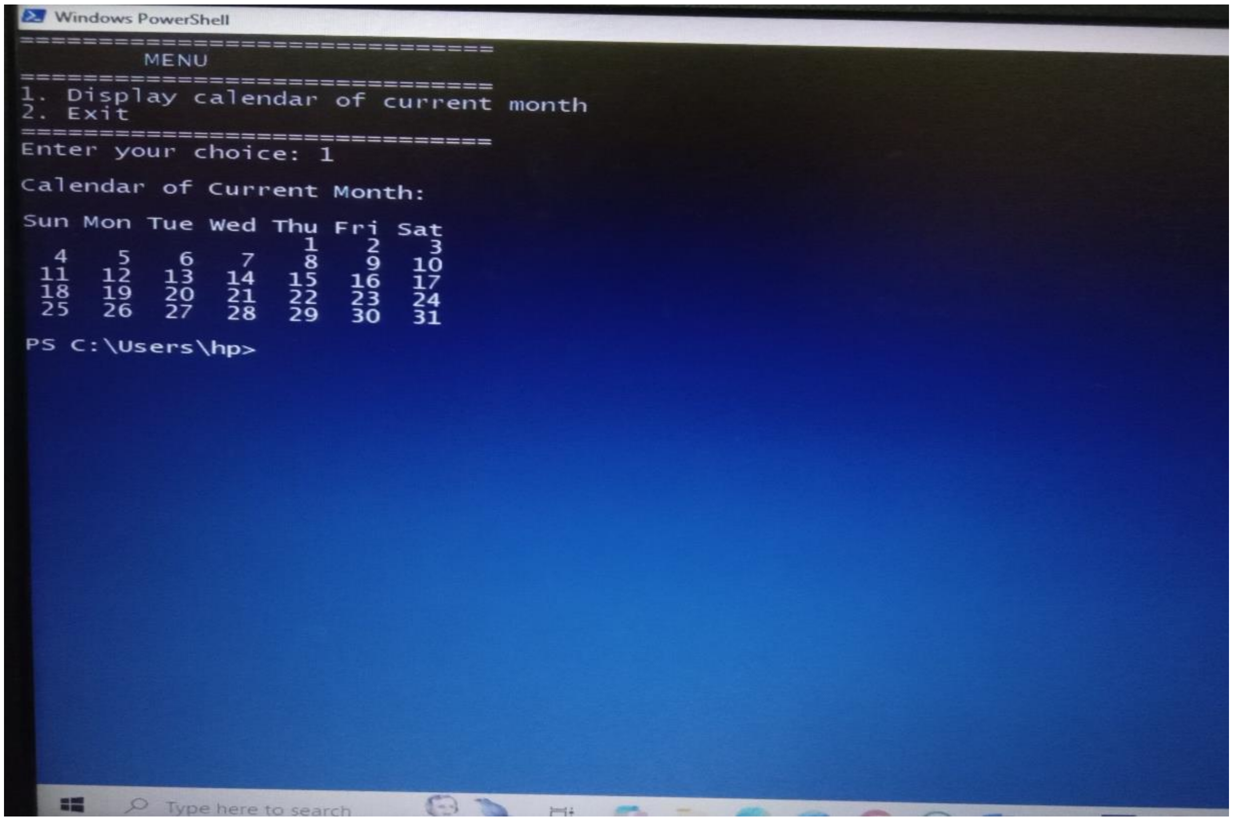

2. Write a menu driven shell script which will print the following menu and execute the given task.

- Display calendar of current month

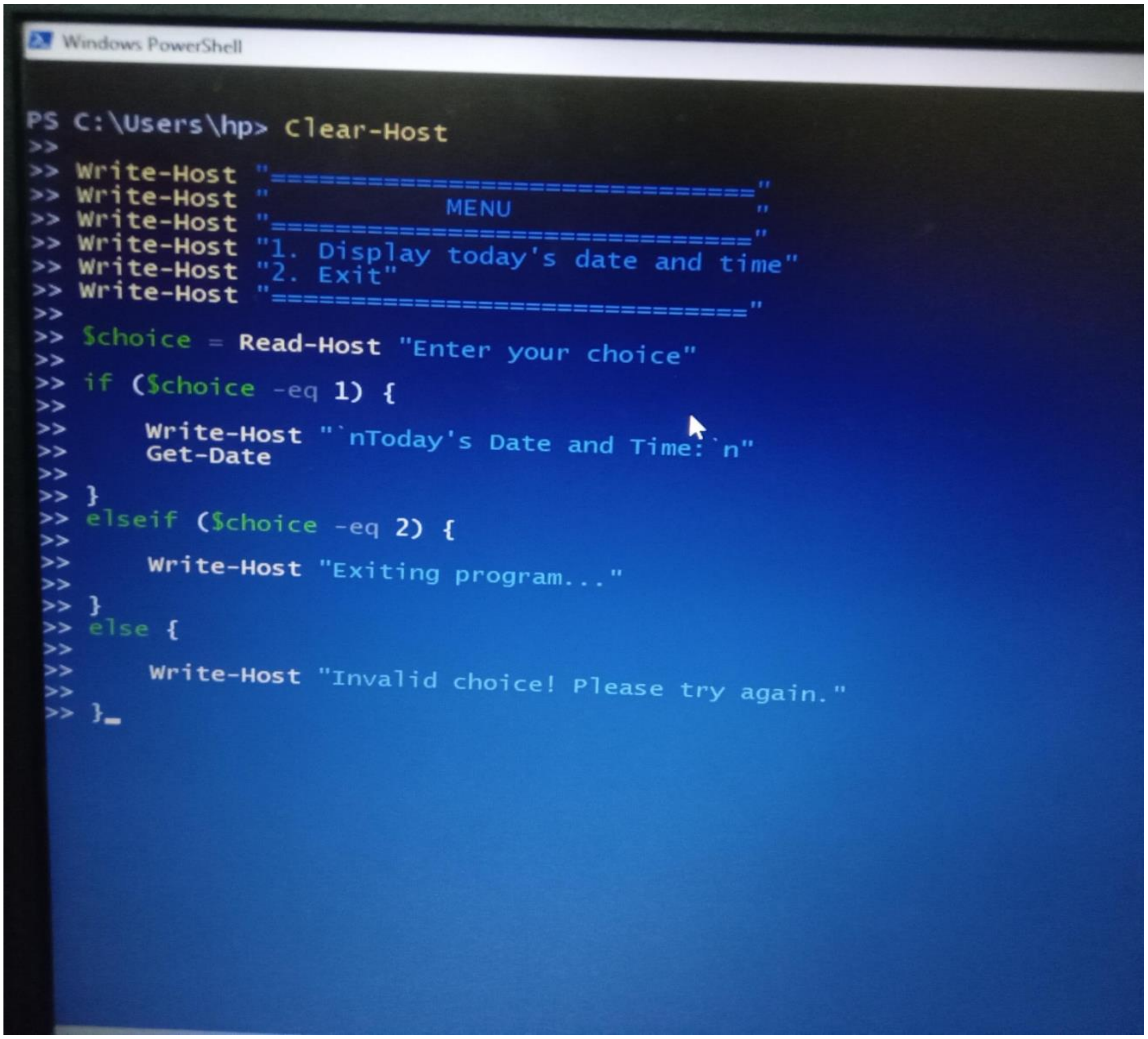


```
PS C:\Users\hp> Clear-Host
>>
>> Write-Host "=============================="
>> Write-Host "           MENU               "
>> Write-Host "=============================="
>> Write-Host "1. Display calendar of current month"
>> Write-Host "2. Exit"
>> Write-Host "=============================="
>>
>> $choice = Read-Host "Enter your choice"
>>
>> if ($choice -eq 1) {
>>
>>     Write-Host "`nCalendar of Current Month:`n"
>>
>>     $today = Get-Date
>>     $firstDay = Get-Date -Day 1
>>     $daysInMonth = [DateTime]::DaysInMonth($today.Year, $today.Month)
>>
>>     Write-Host "Sun Mon Tue Wed Thu Fri Sat"
>>
>>     $startDay = [int]$firstDay.DayOfWeek
>>
>>     for ($i = 0; $i -lt $startDay; $i++) {
>>         Write-Host -NoNewline "    "
>>     }
>>
>>     for ($day = 1; $day -le $daysInMonth; $day++) {
>>         Write-Host -NoNewline ("{0,3} " -f $day)
>>         if ((($day + $startDay) % 7) -eq 0) {
>>             Write-Host ""
>>         }
>>     }
>>
>>     Write-Host ""
>> }
>> elseif ($choice -eq 2) {
>>     Write-Host "Exiting program..."
>> }
>> else {
>>     Write-Host "Invalid choice!"
>> }
```

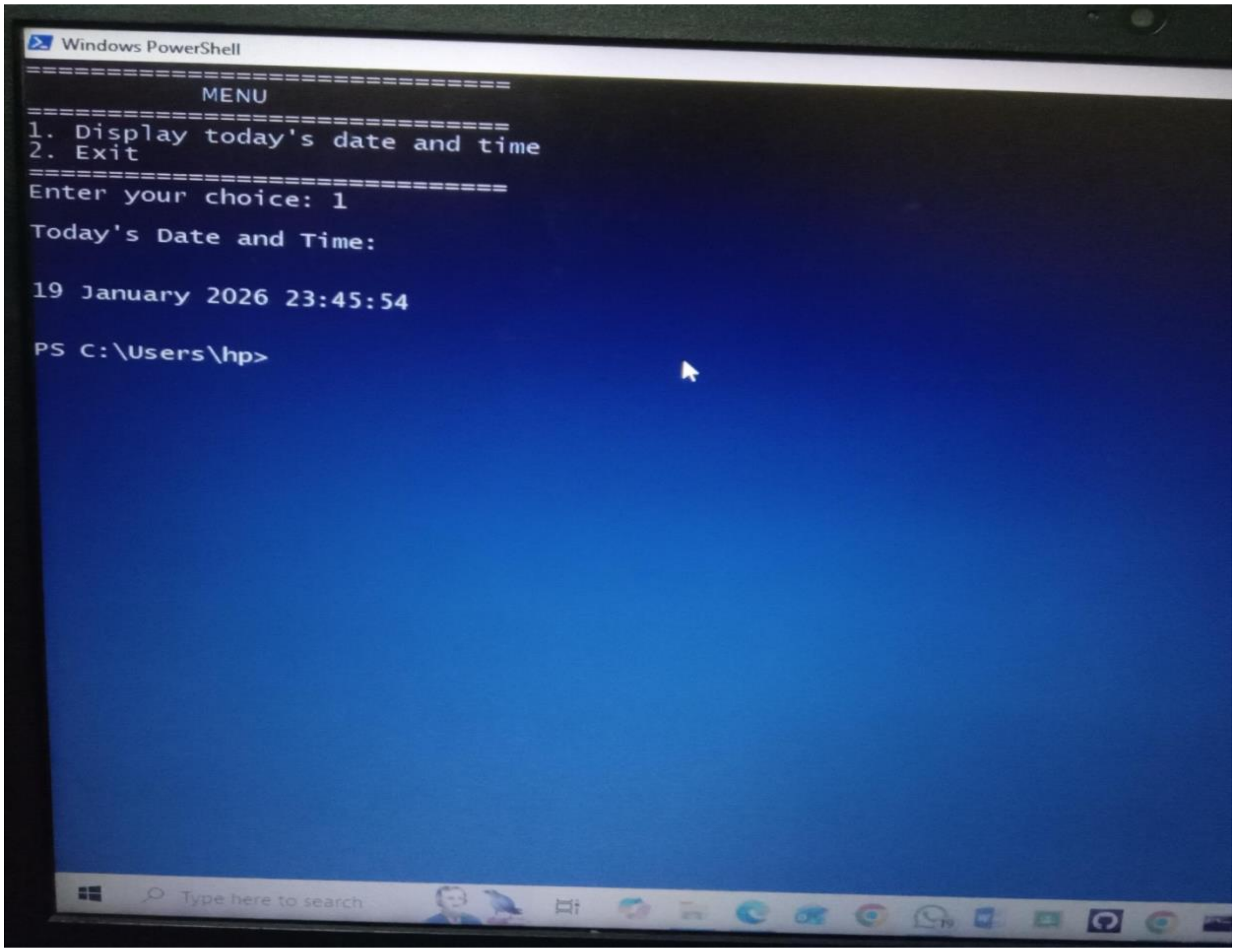


```
==============================
          MENU
==============================
1. Display calendar of current month
2. Exit
==============================
Enter your choice: 1

Calendar of Current Month:

Sun Mon Tue Wed Thu Fri Sat
                  1   2   3
  4   5   6   7   8   9  10
 11  12  13  14  15  16  17
 18  19  20  21  22  23  24
 25  26  27  28  29  30  31

PS C:\Users\hp>
```

• Display today’s date and time

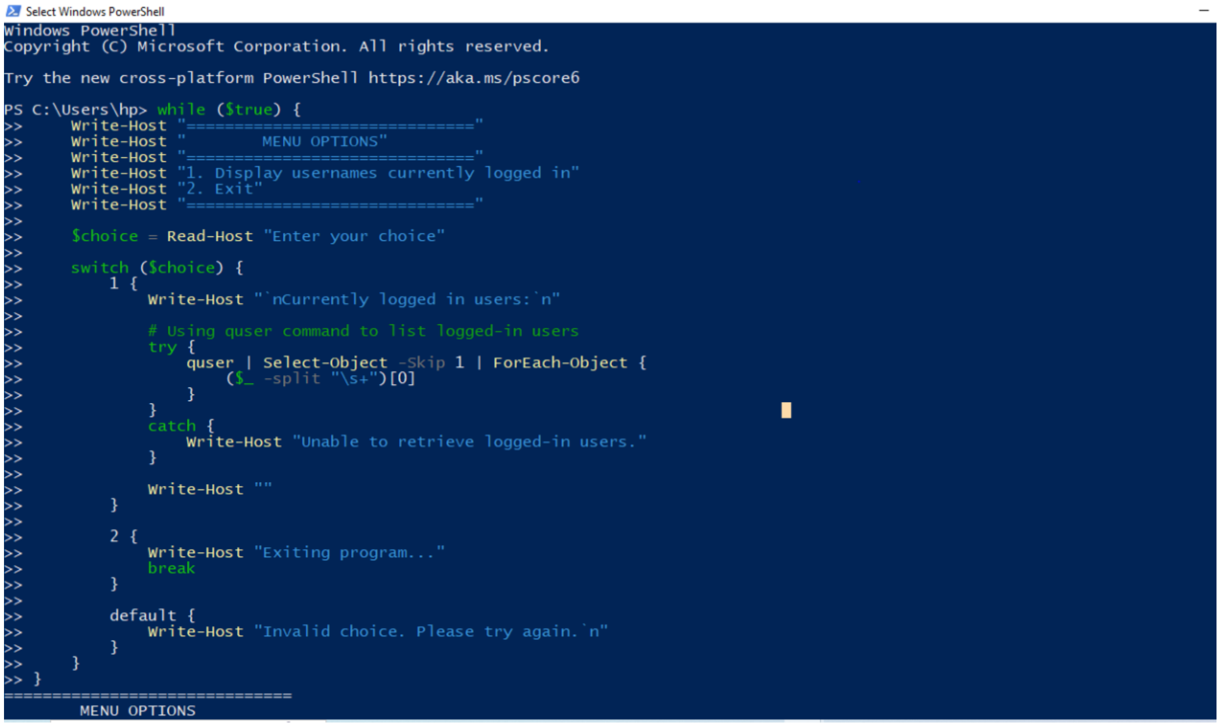

Windows PowerShell

```
PS C:\Users\hp> Clear-Host
>>
>> Write-Host "================================"
>> Write-Host "             MENU               "
>> Write-Host "================================"
>> Write-Host "1. Display today's date and time"
>> Write-Host "2. Exit"
>> Write-Host "================================"
>>
>> $choice = Read-Host "Enter your choice"
>>
>> if ($choice -eq 1) {
>>
>>     Write-Host "`nToday's Date and Time:`n"
>>     Get-Date
>>
>> }
>> elseif ($choice -eq 2) {
>>
>>     Write-Host "Exiting program..."
>>
>> }
>> else {
>>
>>     Write-Host "Invalid choice! Please try again."
>>
>> }
```



```
==============================
            MENU
==============================
1. Display today's date and time
2. Exit
==============================
Enter your choice: 1

Today's Date and Time:


19 January 2026 23:45:54


PS C:\Users\hp>
```

- Display usernames those are currently logged in the system



```
Select Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp> while ($true) {
>>     Write-Host "=============================="
>>     Write-Host "        MENU OPTIONS"
>>     Write-Host "=============================="
>>     Write-Host "1. Display usernames currently logged in"
>>     Write-Host "2. Exit"
>>     Write-Host "=============================="
>>
>>     $choice = Read-Host "Enter your choice"
>>
>>     switch ($choice) {
>>         1 {
>>             Write-Host "`nCurrently logged in users:`n"
>>
>>             # Using quser command to list logged-in users
>>             try {
>>                 quser | Select-Object -Skip 1 | ForEach-Object {
>>                     ($_ -split "\s+")[0]
>>                 }
>>             }
>>             catch {
>>                 Write-Host "Unable to retrieve logged-in users."
>>             }
>>
>>             Write-Host ""
>>         }
>>
>>         2 {
>>             Write-Host "Exiting program..."
>>             break
>>         }
>>
>>         default {
>>             Write-Host "Invalid choice. Please try again.`n"
>>         }
>>     }
>> }
==============================
        MENU OPTIONS
```
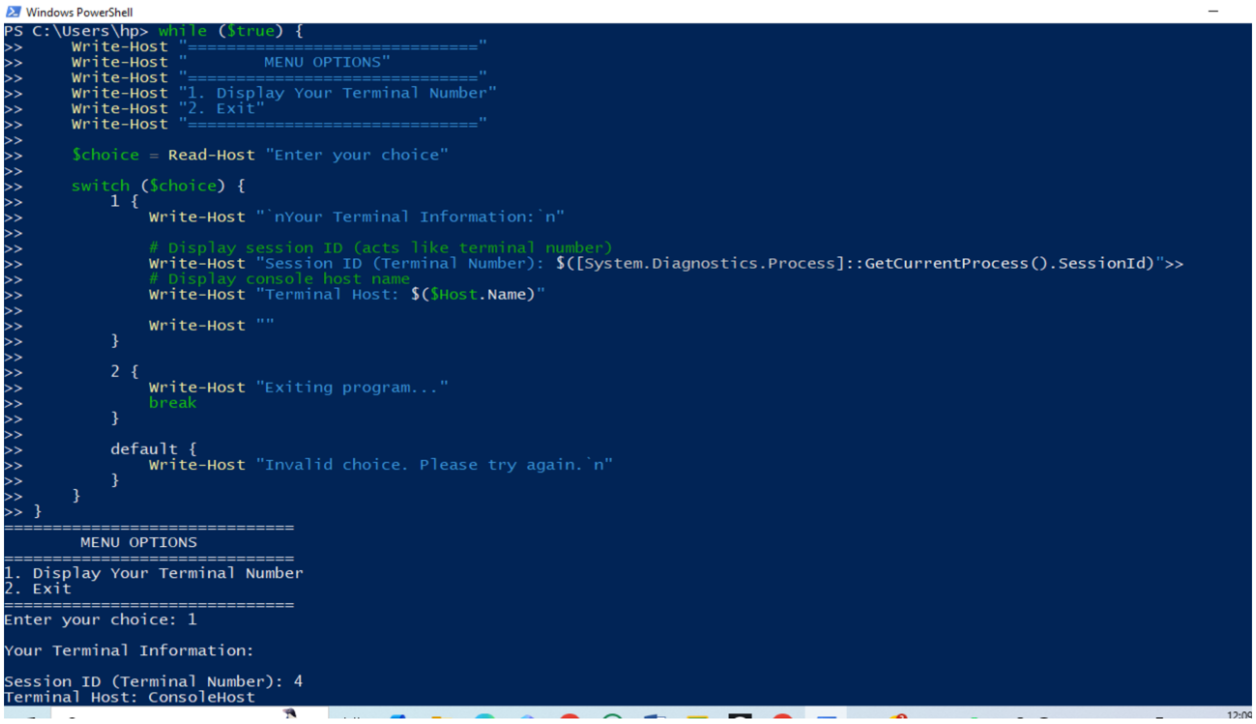
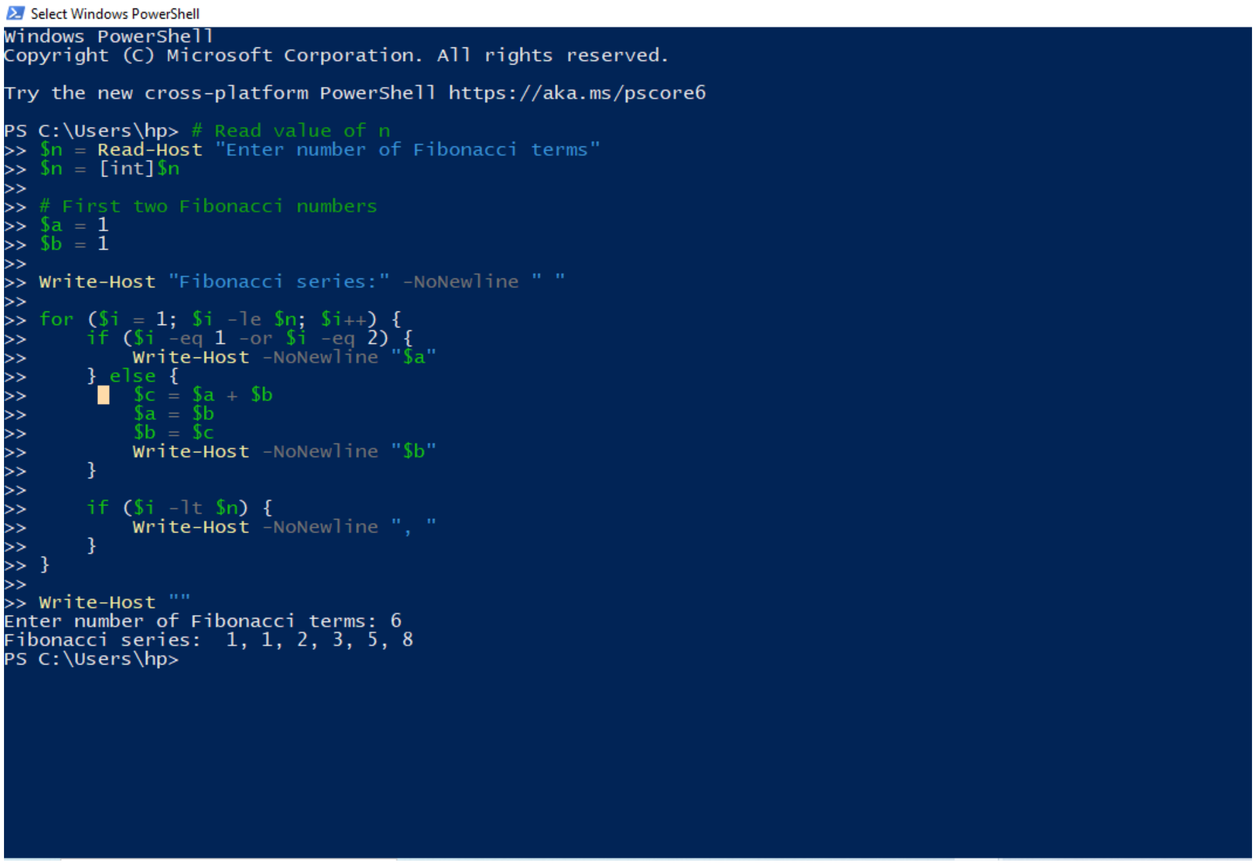

- Display Your terminal number



```
Windows PowerShell
PS C:\Users\hp> while ($true) {
>>     Write-Host "=============================="
>>     Write-Host "        MENU OPTIONS"
>>     Write-Host "=============================="
>>     Write-Host "1. Display Your Terminal Number"
>>     Write-Host "2. Exit"
>>     Write-Host "=============================="
>>
>>     $choice = Read-Host "Enter your choice"
>>
>>     switch ($choice) {
>>         1 {
>>             Write-Host "`nYour Terminal Information:`n"
>>
>>             # Display session ID (acts like terminal number)
>>             Write-Host "Session ID (Terminal Number): $([System.Diagnostics.Process]::GetCurrentProcess().SessionId)">>
>>             # Display console host name
>>             Write-Host "Terminal Host: $($Host.Name)"
>>
>>             Write-Host ""
>>         }
>>
>>         2 {
>>             Write-Host "Exiting program..."
>>             break
>>         }
>>
>>         default {
>>             Write-Host "Invalid choice. Please try again.`n"
>>         }
>>     }
>> }
==============================
        MENU OPTIONS
==============================
1. Display Your Terminal Number
2. Exit
==============================
Enter your choice: 1

Your Terminal Information:

Session ID (Terminal Number): 4
Terminal Host: ConsoleHost
```

3.Write a shell script which will generate first n Fibonacci numbers like: 1, 1, 2, 3, 5, 13



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp> # Read value of n
>> $n = Read-Host "Enter number of Fibonacci terms"
>> $n = [int]$n
>>
>> # First two Fibonacci numbers
>> $a = 1
>> $b = 1
>>
>> Write-Host "Fibonacci series:" -NoNewline " "
>>
>> for ($i = 1; $i -le $n; $i++) {
>>     if ($i -eq 1 -or $i -eq 2) {
>>         Write-Host -NoNewline "$a"
>>     } else {
>>         $c = $a + $b
>>         $a = $b
>>         $b = $c
>>         Write-Host -NoNewline "$b"
>>     }
>>
>>     if ($i -lt $n) {
>>         Write-Host -NoNewline ", "
>>     }
>> }
>>
>> Write-Host ""
Enter number of Fibonacci terms: 6
Fibonacci series:  1, 1, 2, 3, 5, 8
PS C:\Users\hp>
```
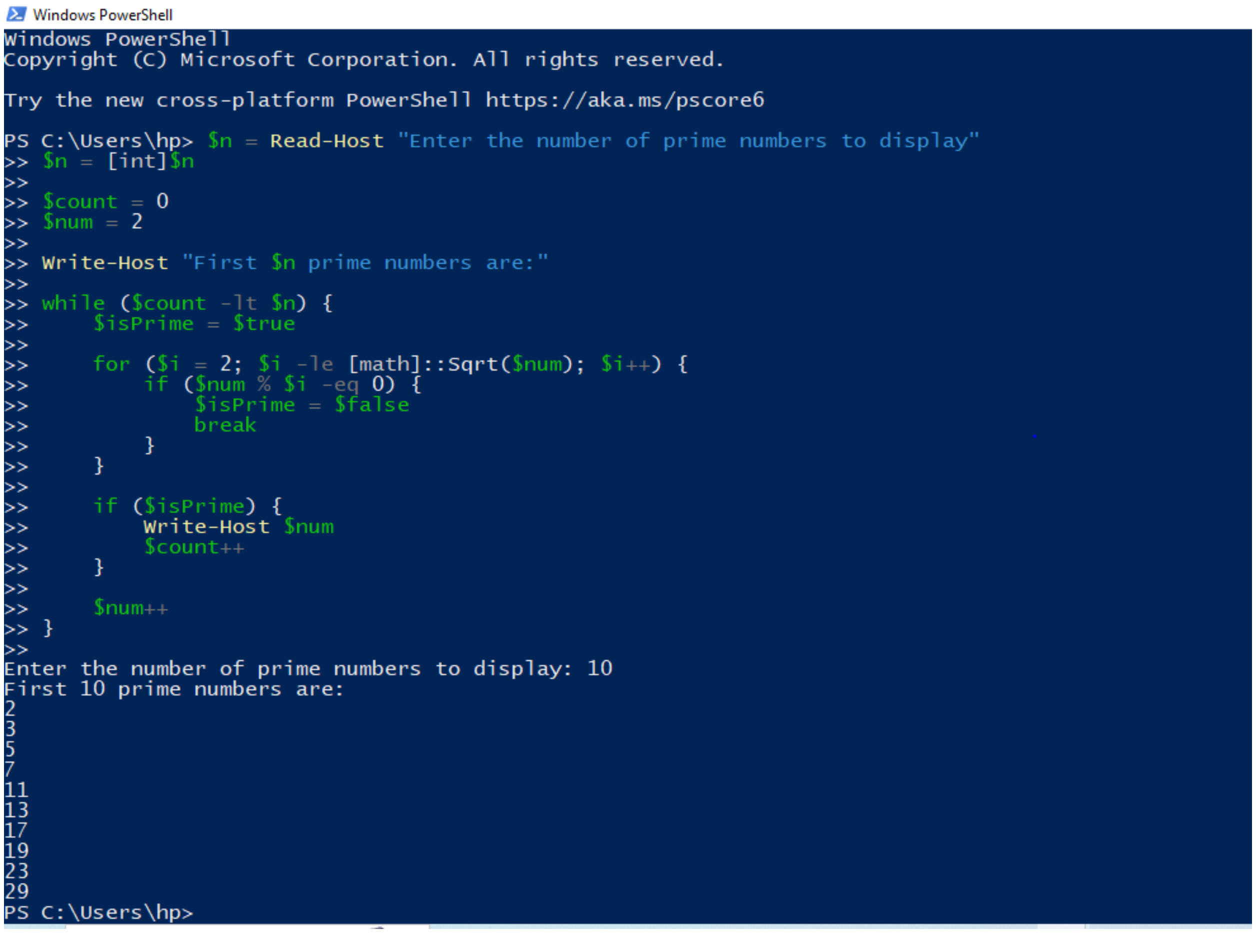

4. Write a shell script which will accept a number b and display first n prime numbers as outPut



Windows PowerShell

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp> $n = Read-Host "Enter the number of prime numbers to display"
>> $n = [int]$n
>>
>> $count = 0
>> $num = 2
>>
>> Write-Host "First $n prime numbers are:"
>>
>> while ($count -lt $n) {
>>     $isPrime = $true
>>
>>     for ($i = 2; $i -le [math]::Sqrt($num); $i++) {
>>         if ($num % $i -eq 0) {
>>             $isPrime = $false
>>             break
>>         }
>>     }
>>
>>     if ($isPrime) {
>>         Write-Host $num
>>         $count++
>>     }
>>
>>     $num++
>> }
>>
Enter the number of prime numbers to display: 10
First 10 prime numbers are:
2
3
5
7
11
13
17
19
23
29
PS C:\Users\hp>
```

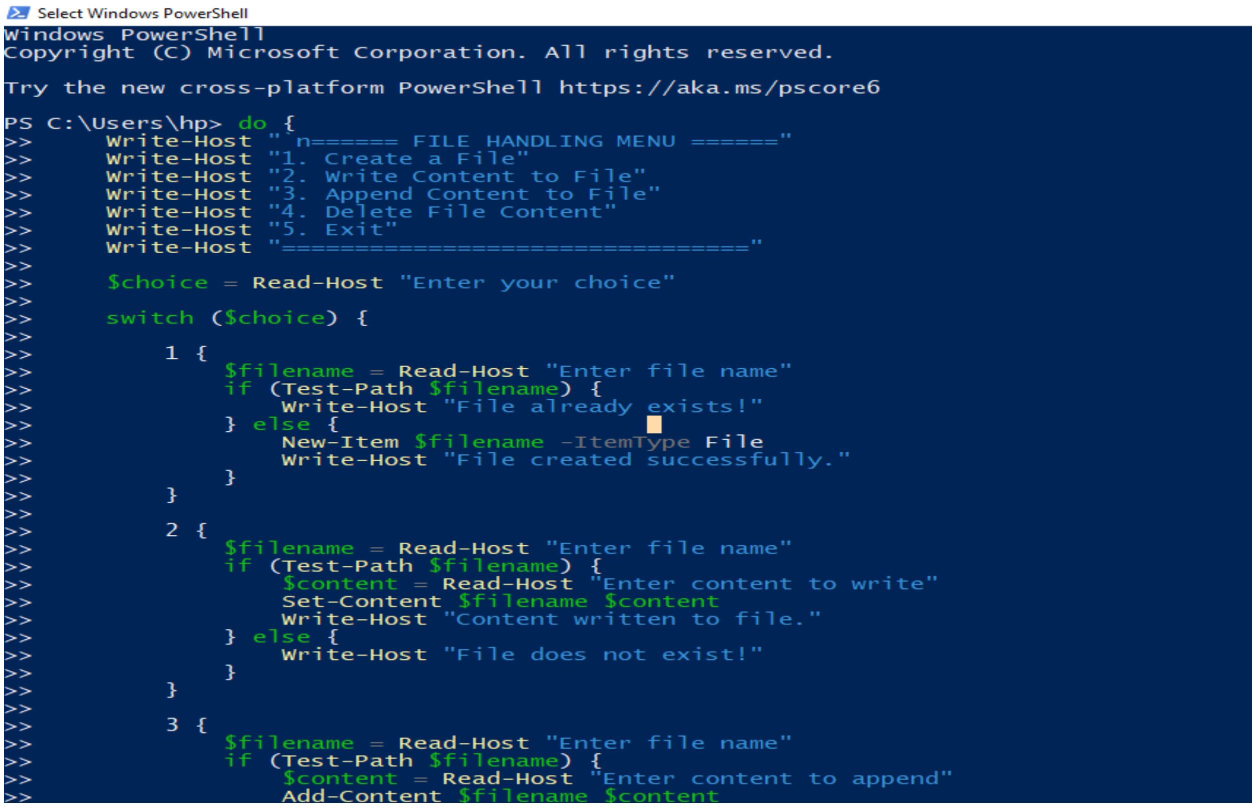
5. Write menu driven program for file handling activity

Creation of file

Write content in the file

Upend file content

Delete file content .



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\hp> do {
>>     Write-Host "`n====== FILE HANDLING MENU ======"
>>     Write-Host "1. Create a File"
>>     Write-Host "2. Write Content to File"
>>     Write-Host "3. Append Content to File"
>>     Write-Host "4. Delete File Content"
>>     Write-Host "5. Exit"
>>     Write-Host "================================="
>>
>>     $choice = Read-Host "Enter your choice"
>>
>>     switch ($choice) {
>>
>>         1 {
>>             $filename = Read-Host "Enter file name"
>>             if (Test-Path $filename) {
>>                 Write-Host "File already exists!"
>>             } else {
>>                 New-Item $filename -ItemType File
>>                 Write-Host "File created successfully."
>>             }
>>         }
>>
>>         2 {
>>             $filename = Read-Host "Enter file name"
>>             if (Test-Path $filename) {
>>                 $content = Read-Host "Enter content to write"
>>                 Set-Content $filename $content
>>                 Write-Host "Content written to file."
>>             } else {
>>                 Write-Host "File does not exist!"
>>             }
>>         }
>>
>>         3 {
>>             $filename = Read-Host "Enter file name"
>>             if (Test-Path $filename) {
>>                 $content = Read-Host "Enter content to append"
>>                 Add-Content $filename $content
```
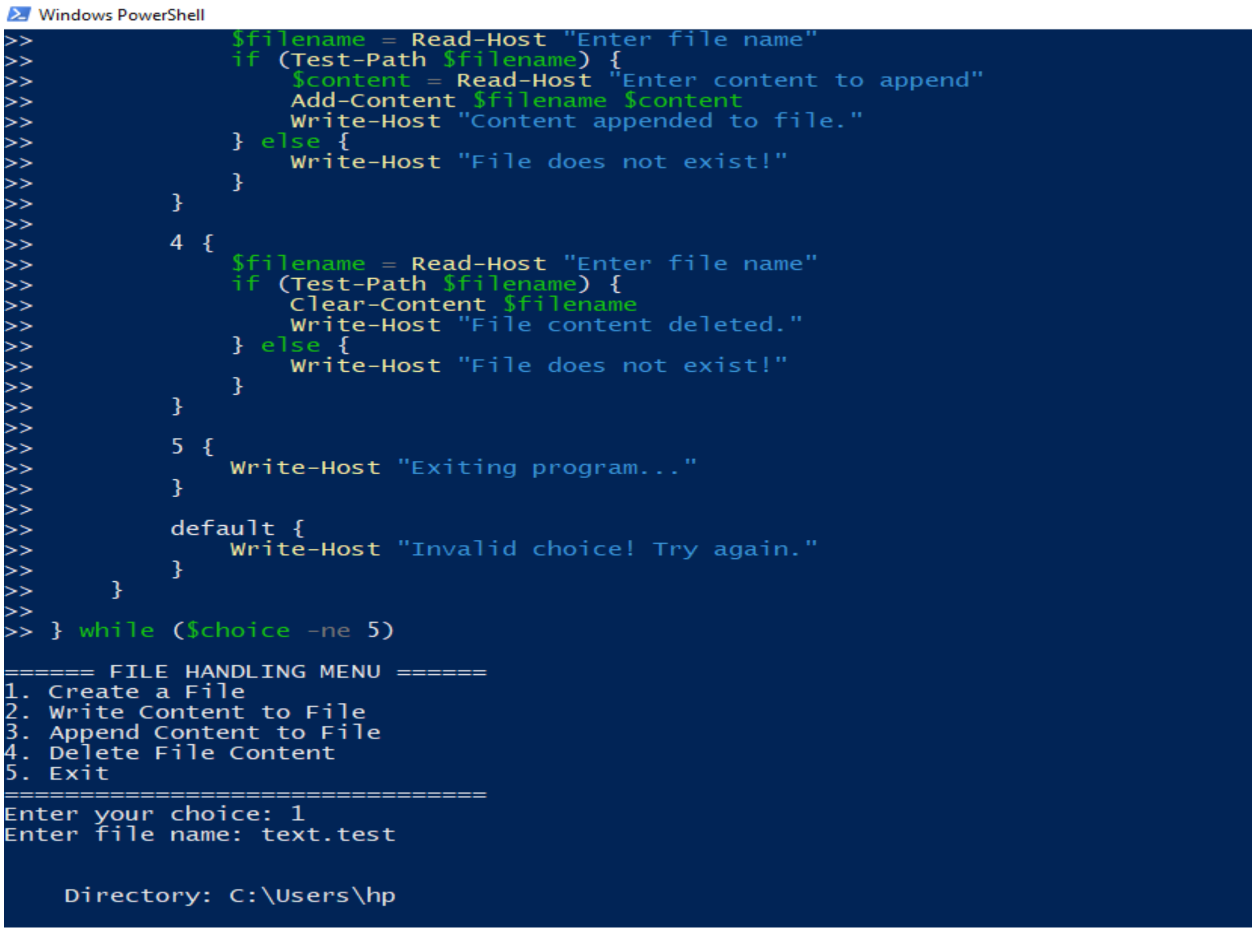
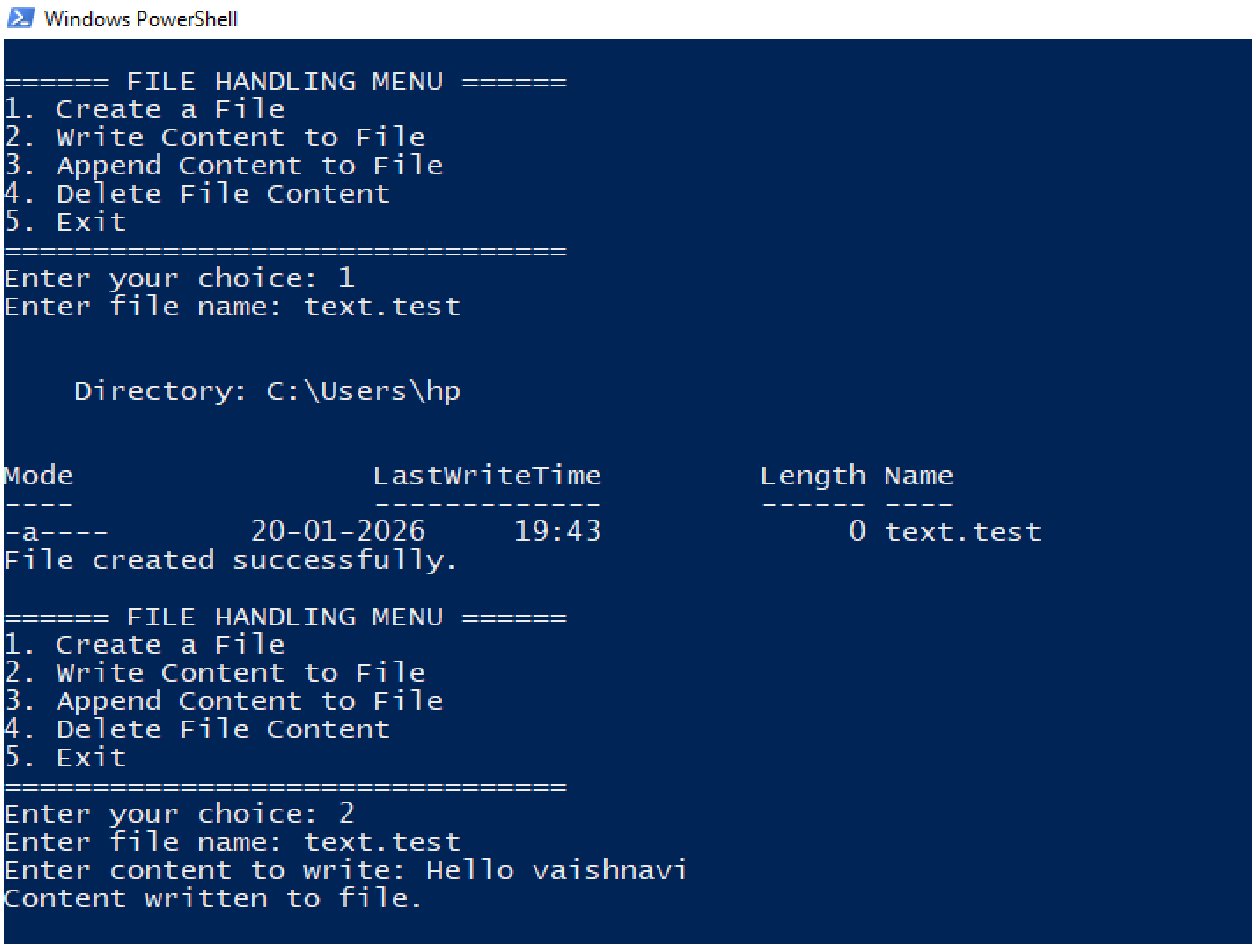
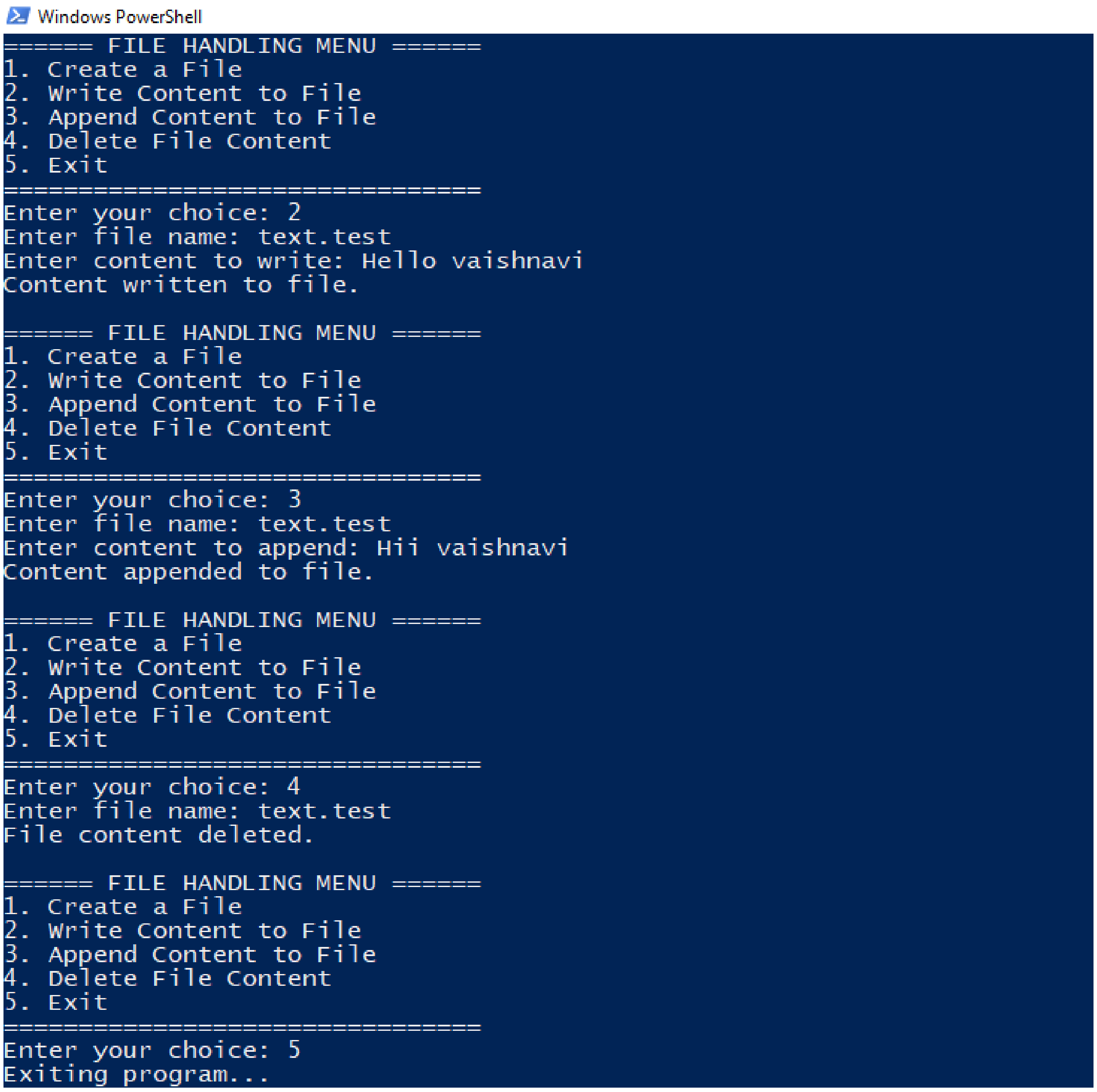



Windows PowerShell

```
>>                 $filename = Read-Host "Enter file name"
>>                 if (Test-Path $filename) {
>>                     $content = Read-Host "Enter content to append"
>>                     Add-Content $filename $content
>>                     Write-Host "Content appended to file."
>>                 } else {
>>                     Write-Host "File does not exist!"
>>                 }
>>             }
>>
>>             4 {
>>                 $filename = Read-Host "Enter file name"
>>                 if (Test-Path $filename) {
>>                     Clear-Content $filename
>>                     Write-Host "File content deleted."
>>                 } else {
>>                     Write-Host "File does not exist!"
>>                 }
>>             }
>>
>>             5 {
>>                 Write-Host "Exiting program..."
>>             }
>>
>>             default {
>>                 Write-Host "Invalid choice! Try again."
>>             }
>>         }
>>
>> } while ($choice -ne 5)

====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 1
Enter file name: text.test


    Directory: C:\Users\hp
```


Windows PowerShell

```
====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 1
Enter file name: text.test


    Directory: C:\Users\hp


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        20-01-2026     19:43              0 text.test
File created successfully.

====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 2
Enter file name: text.test
Enter content to write: Hello vaishnavi
Content written to file.
```



```
====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 2
Enter file name: text.test
Enter content to write: Hello vaishnavi
Content written to file.

====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 3
Enter file name: text.test
Enter content to append: Hii vaishnavi
Content appended to file.

====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 4
Enter file name: text.test
File content deleted.

====== FILE HANDLING MENU ======
1. Create a File
2. Write Content to File
3. Append Content to File
4. Delete File Content
5. Exit
================================
Enter your choice: 5
Exiting program...
```