

Q] Automate student marksheet generation, system information display, Fibonacci and prime number generation, and file management operations using shell scripts to enhance computational efficiency and user interaction

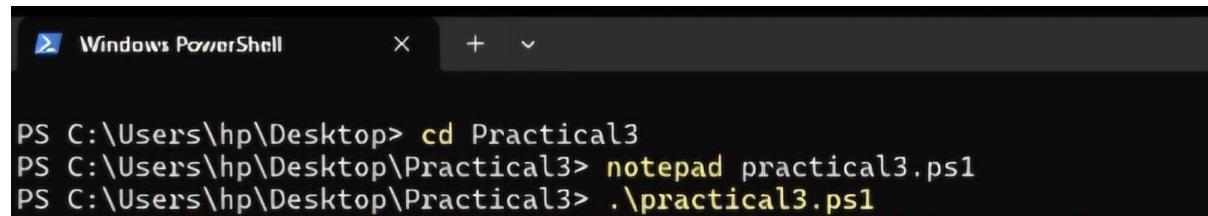
Ans:

```
PS C:\WINDOWS\system32> cd ~
PS C:\Users\hp> cd Desktop
PS C:\Users\hp\Desktop> mkdir Practical3

Directory: C:\Users\hp\Desktop

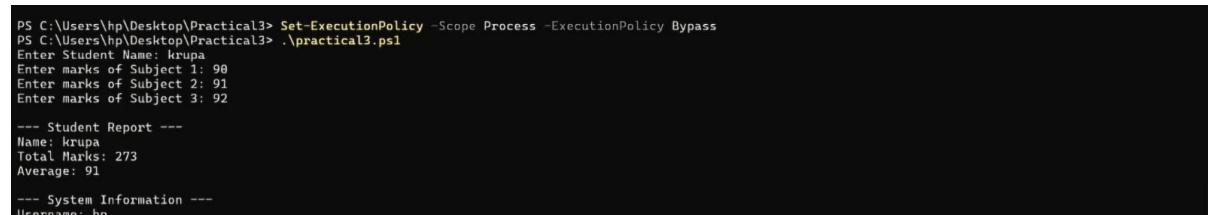
Mode                LastWriteTime         Length Name
----                <-----              ----- 
d----        20-01-2026     23:42             Practical3

PS C:\Users\hp\Desktop> cd Practical3
PS C:\Users\hp\Desktop\Practical3> notepad practical3.ps1
PS C:\Users\hp\Desktop\Practical3> .\practical3.ps1
```



A screenshot of a Windows PowerShell window titled "Windows PowerShell". The command history shows the creation of a directory named "Practical3" on the desktop, opening it in Notepad, and then executing the "practical3.ps1" script.

```
PS C:\Users\hp\Desktop> cd Practical3
PS C:\Users\hp\Desktop\Practical3> notepad practical3.ps1
PS C:\Users\hp\Desktop\Practical3> .\practical3.ps1
```

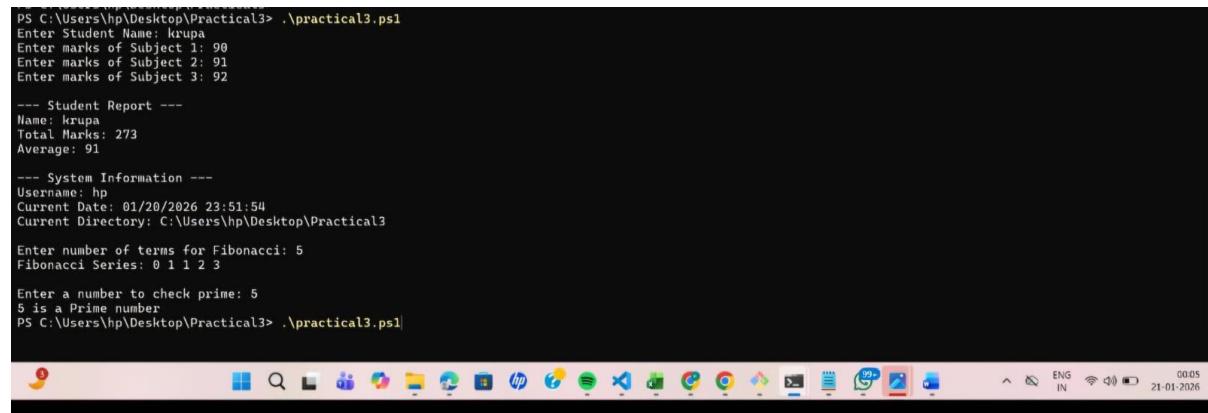


A screenshot of a Windows PowerShell window showing the execution of "practical3.ps1". The script prompts for student name and marks, generates a student report, and displays system information.

```
PS C:\Users\hp\Desktop\Practical3> Set-ExecutionPolicy -Scope Process -ExecutionPolicy Bypass
PS C:\Users\hp\Desktop\Practical3> .\practical3.ps1
Enter Student Name: krupa
Enter marks of Subject 1: 90
Enter marks of Subject 2: 91
Enter marks of Subject 3: 92

--- Student Report ---
Name: krupa
Total Marks: 273
Average: 91

--- System Information ---
Username: hp
```



A screenshot of a Windows PowerShell window showing the execution of "practical3.ps1". The script performs multiple tasks: generating a student report, displaying system information, calculating Fibonacci series, and checking for prime numbers.

```
PS C:\Users\hp\Desktop\Practical3> .\practical3.ps1
Enter Student Name: krupa
Enter marks of Subject 1: 90
Enter marks of Subject 2: 91
Enter marks of Subject 3: 92

--- Student Report ---
Name: krupa
Total Marks: 273
Average: 91

--- System Information ---
Username: hp
Current Date: 01/20/2026 23:51:54
Current Directory: C:\Users\hp\Desktop\Practical3

Enter number of terms for Fibonacci: 5
Fibonacci Series: 0 1 1 2 3

Enter a number to check prime: 5
5 is a Prime number
PS C:\Users\hp\Desktop\Practical3> .\practical3.ps1
```

