

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.

```
MINGW64:c/Users/hp/Downloads/OS_CD24050
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/os_CD24050 (main)
$ #!/bin/bash

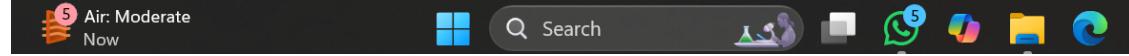
echo "Enter marks of subject 1:"
read m1
echo "Enter marks of subject 2:"
read m2
echo "Enter marks of Subject 3:"
read m3

total=$((m1 + m2 + m3))
percentage=$((total / 3))

echo "-----"
echo "Total Marks = $total"
echo "Percentage = $percentage %"

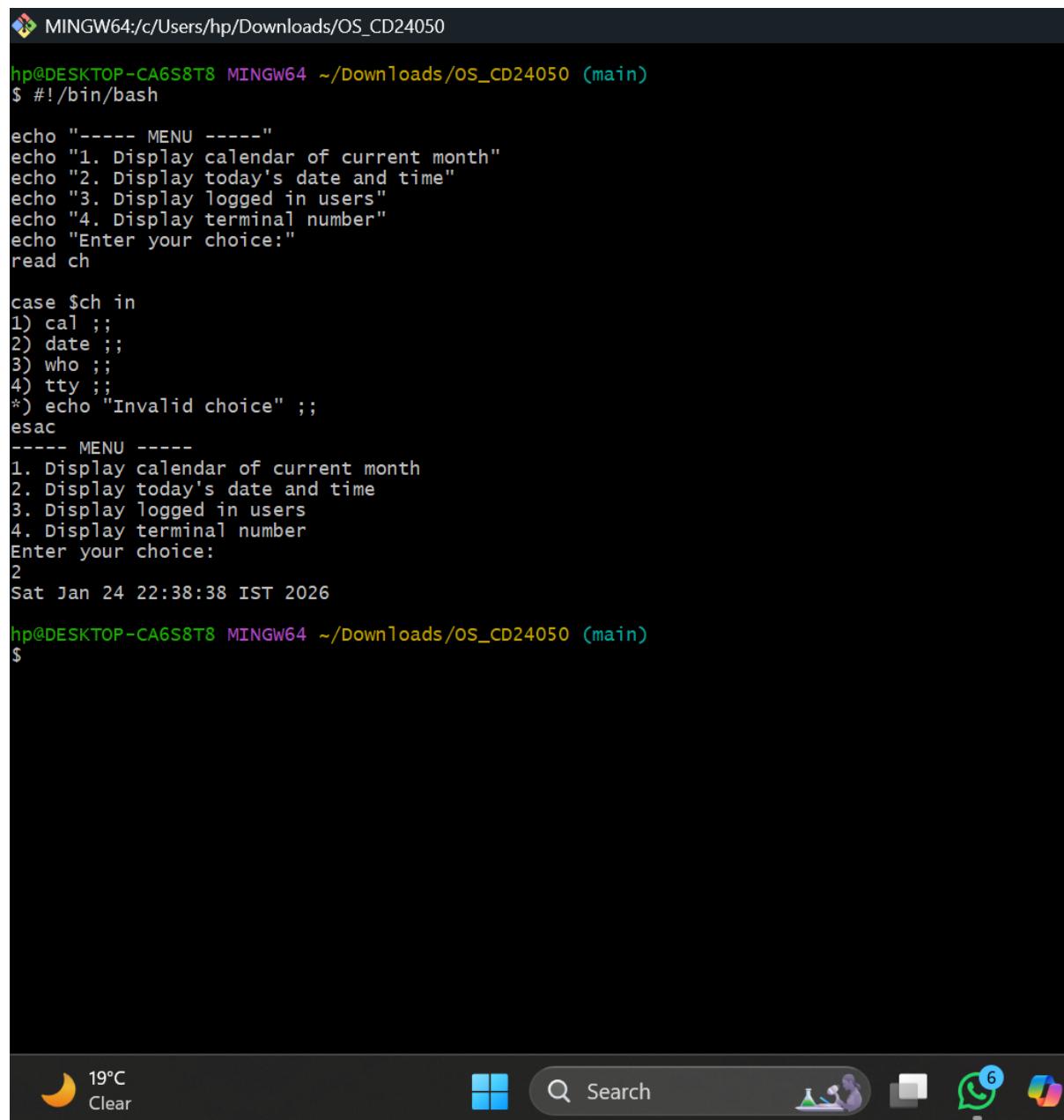
if [ $percentage -ge 75 ]; then
    echo "Class Obtained: Distinction"
elif [ $percentage -ge 60 ]; then
    echo "Class Obtained: First Class"
elif [ $percentage -ge 50 ]; then
    echo "Class Obtained: Second Class"
elif [ $percentage -ge 40 ]; then
    echo "Class Obtained: Pass"
else
    echo "Class Obtained: Fail"
fi
Enter marks of Subject 1:
25
Enter marks of Subject 2:
45
Enter marks of Subject 3:
46
-----
7Total Marks = 116
Percentage = 38 %
Class Obtained: Fail
```

```
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/os_CD24050 (main)
```



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

- ❑ Display calendar of current month
- ❑ Display today's date and time
- ❑ Display usernames those are currently logged in the system
- ❑ Display your terminal number



The screenshot shows a Windows desktop environment with a terminal window open in a dark theme. The terminal window displays a menu-driven shell script. The script prompts the user for a choice between four options: displaying the calendar, the date and time, logged-in users, or the terminal number. The user enters '2' to display the date and time, which is shown as 'Sat Jan 24 22:38:38 IST 2026'. The terminal window has a black background with white text. At the bottom of the screen, there is a taskbar with several icons, including a weather widget showing '19°C Clear', a search bar, and other system icons.

```
MINGW64:/c/Users/hp/Downloads/OS_CD24050
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$ #!/bin/bash

echo "---- MENU ----"
echo "1. Display calendar of current month"
echo "2. Display today's date and time"
echo "3. Display logged in users"
echo "4. Display terminal number"
echo "Enter your choice:"
read ch

case $ch in
1) cal ;;
2) date ;;
3) who ;;
4) tty ;;
*) echo "Invalid choice" ;;
esac
---- MENU ----
1. Display calendar of current month
2. Display today's date and time
3. Display logged in users
4. Display terminal number
Enter your choice:
2
Sat Jan 24 22:38:38 IST 2026

hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$
```

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

```
MINGW64:c/Users/hp/Downloads/OS_CD24050
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$ #!/bin/bash
echo "Enter value of n:"
read n
a=1
b=1
echo "Fibonacci Series:"
for (( i=1; i<=n; i++ ))
do
    echo -n "$a "
    c=$((a + b))
    a=$b
    b=$c
done
echo
Enter value of n:
5
Fibonacci Series:
1 1 2 3 5
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$
```

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

```
MINGW64:/c/Users/hp/Downloads/OS_CD24050
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$#!/bin/bash

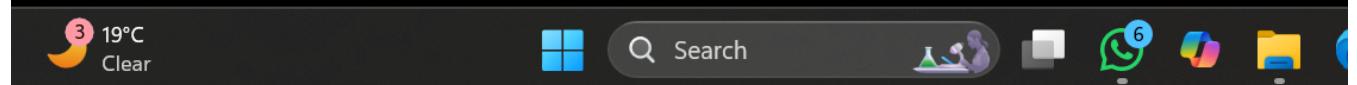
echo "Enter value of n:"
read n

count=0
num=2

echo "Prime Numbers:"
while [ $count -lt $n ]
do
    flag=1
    for (( i=2; i<=num/2; i++ ))
    do
        if [ $((num % i)) -eq 0 ]; then
            flag=0
            break
        fi
    done

    if [ $flag -eq 1 ]; then
        echo -n "$num "
        count=$((count + 1))
    fi
    num=$((num + 1))
done
echo
Enter value of n:
10
Prime Numbers:
2 3 5 7 11 13 17 19 23 29

hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$ |
```



5. Write menu driven program for file handling activity

❑ Creation of file

❑ Write content in the file

❑ Upend file content

❑ Delete file content

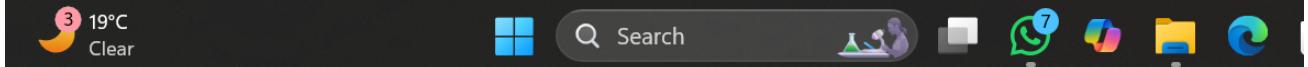
```
MINGW64:/c/Users/hp/Downloads/OS_CD24050
hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$ #!/bin/bash

echo "----- FILE MENU -----"
echo "1. Create a file"
echo "2. Write content to file"
echo "3. Append content to file"
echo "4. Delete file content"
echo "Enter your choice:"
read ch

echo "Enter filename:"
read fname

case $ch in
1)
    touch $fname
    echo "File created successfully"
    ;;
2)
    echo "Enter content (Ctrl+D to save):"
    cat > $fname
    ;;
3)
    echo "Enter content to append (Ctrl+D to save):"
    cat >> $fname
    ;;
4)
    > $fname
    echo "File content deleted"
    ;;
*) 
    echo "Invalid choice"
    ;;
esac
----- FILE MENU -----
1. Create a file
2. Write content to file
3. Append content to file
4. Delete file content
Enter your choice:
1
Enter filename:
shivam
File created successfully

hp@DESKTOP-CA6S8T8 MINGW64 ~/Downloads/OS_CD24050 (main)
$
```

The image shows a Windows taskbar at the bottom of the screen. From left to right, it includes: a weather icon showing 3 days and 19°C, a 'Clear' button, the Windows logo, a search bar with the word 'Search', a Microsoft Edge icon, a Microsoft Word icon, a Microsoft Excel icon, a Microsoft PowerPoint icon, a Microsoft OneDrive icon, and a Microsoft Teams icon.