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

Code:

MINGW64:/c/Users/Admin/Desktop

```
Student@DESKTOP-JJ8CFNB MINGW64 ~/Desktop
$ #!/bin/bash

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

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

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

if [ $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 for Subject 1:
67
Enter marks for Subject 2:
56
Enter marks for Subject 3:
47
------------------------
Total Marks: 170
Percentage: 56%
Class Obtained: Second Class

Student@DESKTOP-JJ8CFNB MINGW64 ~/Desktop
$
```

Output:

```
Enter marks for Subject 1:
67
Enter marks for Subject 2:
56
Enter marks for Subject 3:
47
------------------------
Total Marks: 170
Percentage: 56%
Class Obtained: Second Class
```

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

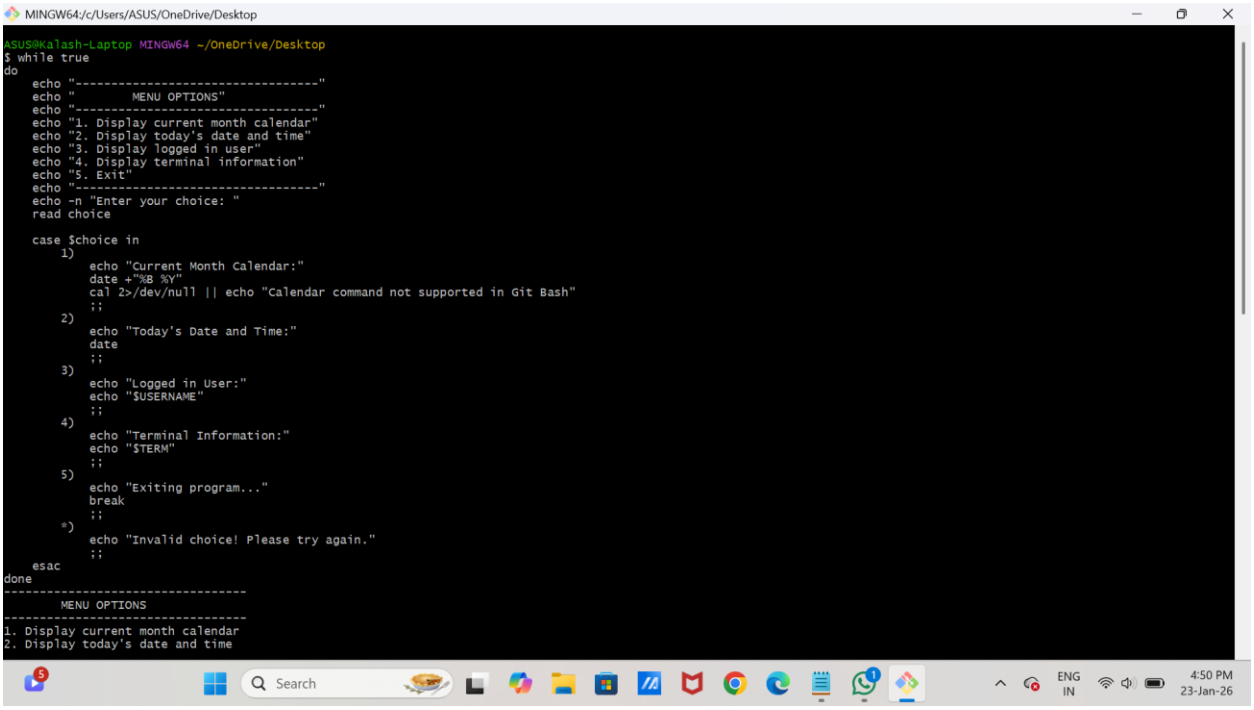
Display calendar of current month

Display today's date and time

Display usernames those are currently logged in the system

Display your terminal number

Code:



Output:

```
----------
        MENU OPTIONS
----------
1. Display current month calendar
2. Display today's date and time
3. Display logged in user
4. Display terminal information
5. Exit
----------
Enter your choice: 1
Current Month Calendar:
January 2026
Calendar command not supported in Git Bash
```

```
----------------------------------
        MENU OPTIONS
----------------------------------
1. Display current month calendar
2. Display today's date and time
3. Display logged in user
4. Display terminal information
5. Exit
----------------------------------
Enter your choice: 2
Today's Date and Time:
Fri Jan 23 16:47:27 IST 2026
```

```
--------------------------------
       MENU OPTIONS
--------------------------------
1. Display current month calendar
2. Display today's date and time
3. Display logged in user
4. Display terminal information
5. Exit
--------------------------------
Enter your choice: 3
Logged in User:
ASUS
--------------------------------
```

```
----------------------------------
        MENU OPTIONS
----------------------------------
1. Display current month calendar
2. Display today's date and time
3. Display logged in user
4. Display terminal information
5. Exit
----------------------------------
Enter your choice: 4
Terminal Information:
xterm
```

```
--------------------------------
       MENU OPTIONS
--------------------------------
1. Display current month calendar
2. Display today's date and time
3. Display logged in user
4. Display terminal information
5. Exit
--------------------------------
Enter your choice: 5
Exiting program...

ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$
```

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

Code:

```
MINGW64:/c/Users/ASUS/OneDrive/Desktop

ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$ while true
do
    echo "Enter number of terms:"
    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

    echo
    echo "Do you want to continue? (y/n):"
    read choice

    if [ "$choice" != "y" ]; then
        echo "Program exited."
        break
    fi
done
Enter number of terms:
5
Fibonacci Series:
1 1 2 3 5

Do you want to continue? (y/n):
y
Enter number of terms:
7
Fibonacci Series:
1 1 2 3 5 8 13

Do you want to continue? (y/n):
n
Program exited.

ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$
```

Output:

```
done
Enter number of terms:
5
Fibonacci Series:
1 1 2 3 5

Do you want to continue? (y/n):
y
Enter number of terms:
7
Fibonacci Series:
1 1 2 3 5 8 13

Do you want to continue? (y/n):
n
Program exited.

ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$
```

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

Code:

```
MINGW64:/c/Users/ASUS/OneDrive/Desktop
ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$ #!/bin/bash

while true
do
    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

    echo
    echo "Do you want to continue? (y/n):"
    read choice

    if [ "$choice" != "y" ]; then
        echo "Program exited."
        break
    fi
done
Enter value of n:
6
Prime Numbers:
2 3 5 7 11 13

Do you want to continue? (y/n):
y
```

Output:

```
Enter value of n:
6
Prime Numbers:
2 3 5 7 11 13

Do you want to continue? (y/n):
y
Enter value of n:
5
Prime Numbers:
2 3 5 7 11

Do you want to continue? (y/n):
n
Program exited.

ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$
```

5. Write menu driven program for file handling activity

Creation of file

Write content in the file

Upend file content

Delete file content

Code:

```
ASUS@Kalash-Laptop MINGW64 ~/OneDrive/Desktop
$ #!/bin/bash

while true
do
echo "----------------------------"
echo "1. Create File"
echo "2. Write Content to File"
echo "3. Append File Content"
echo "4. Delete File Content"
echo "5. Exit"
echo "----------------------------"
echo "Enter your choice:"
read ch

case $ch in

1)
   echo "Enter file name to create:"
   read file
   touch "$file"
   echo "☑ File '$file' successfully created."
   echo "📍 Location: $(pwd)/$file"
   ;;

2)
   echo "Enter file name to write content:"
   read file
   echo "Enter content (Ctrl+D to save):"
   cat > "$file"
   echo "☑ Content successfully written to '$file'."
   echo "📍 Location: $(pwd)/$file"
   ;;

3)
   echo "Enter file name to append content:"
   read file
   echo "Enter content to append (Ctrl+D to save):"
   cat >> "$file"
   echo "☑ Content successfully appended to '$file'."
   echo "📍 Location: $(pwd)/$file"
   ;;

4)
   echo "Enter file name to delete content:"
   read file
   > "$file"
```

```
4)
   echo "Enter file name to delete content:"
   read file
   > "$file"
   echo "☑ Content successfully deleted from '$file'."
   echo "📍 Location: $(pwd)/$file"
done;ho "✖ Invalid choice, please try again."
----------------------------
```

Output:

```
----------------------------
1. Create File
2. Write Content to File
3. Append File Content
4. Delete File Content
5. Exit
----------------------------
Enter your choice:
1
Enter file name to create:
Kalash_CD24020
☑ File 'Kalash_CD24020' successfully created.
📍 Location: /c/Users/ASUS/OneDrive/Desktop/Kalash_CD24020
----------------------------
```

```
----------------------------
1. Create File
2. Write Content to File
3. Append File Content
4. Delete File Content
5. Exit
----------------------------
Enter your choice:
2
Enter file name to write content:
Hello SB Jain, My name is Kalash.
Enter content (Ctrl+D to save):
☑ Content successfully written to 'Hello SB Jain, My name is Kalash.'.
📍 Location: /c/Users/ASUS/OneDrive/Desktop/Hello SB Jain, My name is Kalash.
----------------------------
```

```
----------------------------
1. Create File
2. Write Content to File
3. Append File Content
4. Delete File Content
5. Exit
----------------------------
Enter your choice:
3
Enter file name to append content:
I am 4th sem student of AIDS Department
Enter content to append (Ctrl+D to save):
☑ Content successfully appended to 'I am 4th sem stuendent of AIDS DEpatrtment'.
📍 Location: /c/Users/ASUS/OneDrive/Desktop/I am 4th sem stuendent of AIDS DEpatrtment
----------------------------
```

```
----------------------------
1. Create File
2. Write Content to File
3. Append File Content
4. Delete File Content
5. Exit
----------------------------
Enter your choice:
4
Enter file name to delete content:
I am 4th sem stuendent of AIDS DEpatrtment
☑ Content successfully deleted from 'I am 4th sem stuendent of AIDS DEpatrtment'.
📍 Location: /c/Users/ASUS/OneDrive/Desktop/I am 4th sem stuendent of AIDS DEpatrtment
```