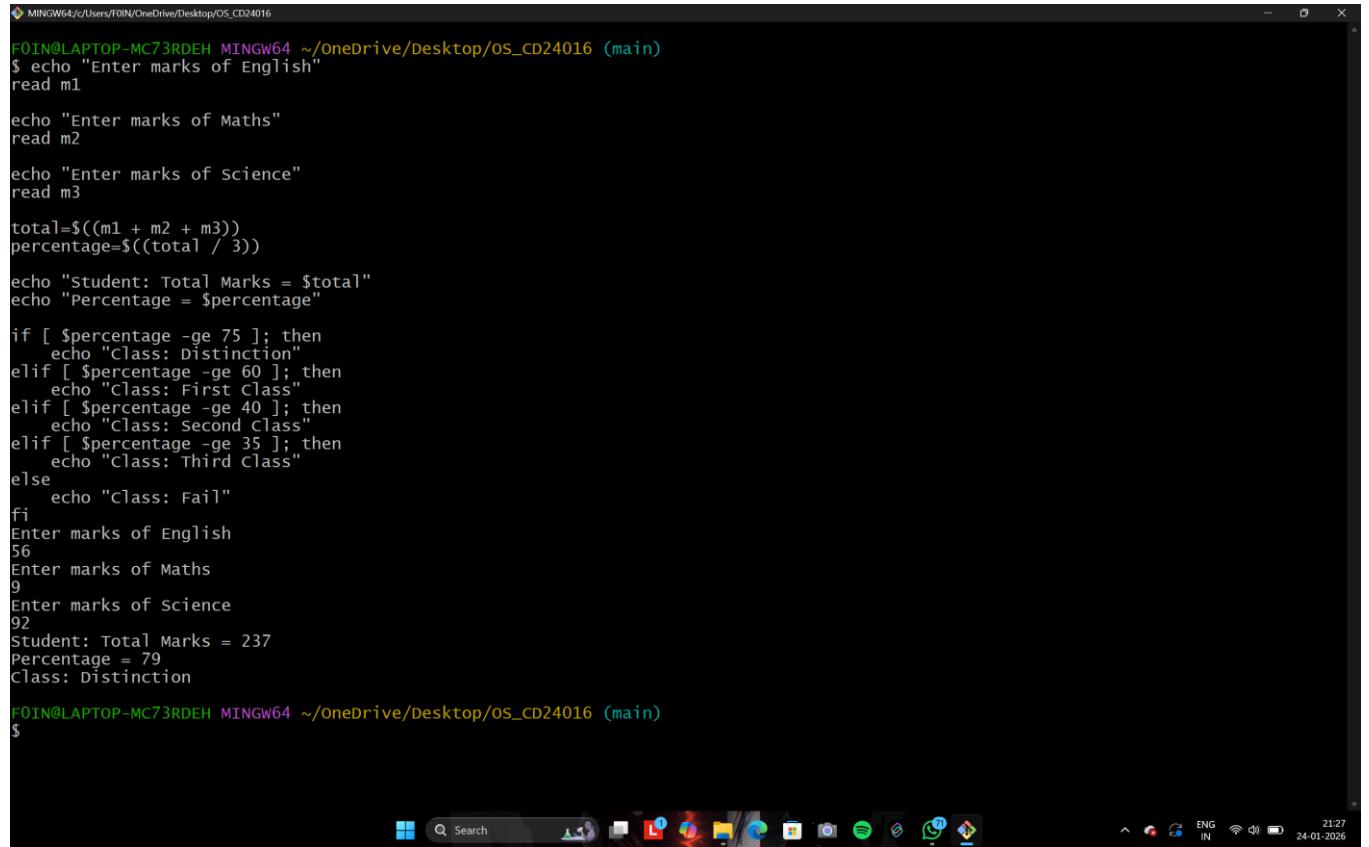


1. Write a shell script to generate mark- sheet of a student. Take 3 subjects, calculate and display total marks, percentage and Class obtained by the student.



```
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/os_CD24016 (main)
$ echo "Enter marks of English"
read m1
echo "Enter marks of Maths"
read m2
echo "Enter marks of Science"
read m3

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

echo "Student: Total Marks = $total"
echo "Percentage = $percentage"

if [ $percentage -ge 75 ]; then
    echo "Class: Distinction"
elif [ $percentage -ge 60 ]; then
    echo "Class: First Class"
elif [ $percentage -ge 40 ]; then
    echo "Class: Second Class"
elif [ $percentage -ge 35 ]; then
    echo "Class: Third Class"
else
    echo "Class: Fail"
fi
Enter marks of English
56
Enter marks of Maths
9
Enter marks of Science
92
Student: Total Marks = 237
Percentage = 79
Class: Distinction

FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/os_CD24016 (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

```
MINGW64:/c/Users/F01N/OneDrive/Desktop/OS_CD24016
$ ./menu.sh
#!/bin/bash

while true
do
    echo "-----"
    echo "      MENU"
    echo "-----"
    echo "1. Display calendar of current month"
    echo "2. Display today's date and time"
    echo "3. Display usernames currently logged in"
    echo "4. Display your terminal number"
    echo "5. Exit"
    echo "-----"
    echo -n "Enter your choice: "
    read choice

    case $choice in
        1)
            cal
            ;;
        2)
            date
            ;;
        3)
            who
            ;;
        4)
            tty
            ;;
        5)
            echo "Exiting program..."
            exit
            ;;
        *)
            echo "Invalid choice! Please try again."
            ;;
    esac
done
-----"
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display your terminal number
5. Exit
-----"
Enter your choice: 2
Sat Jan 24 21:25:11 IST 2026
-----"
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display your terminal number
5. Exit
-----"
Enter your choice: |
```

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

```
MINGW64/c/Users/F0IN/OneDrive/Desktop/OS_CD24016
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/OS_CD24016 (main)
$#!/bin/bash

echo "Enter the value of n:"
read n

a=1
b=1

echo "Fibonacci series:"

if [ $n -ge 1 ]
then
    echo -n "$a "
fi

if [ $n -ge 2 ]
then
    echo -n "$b "
fi

for (( i=3; i<=n; i++ ))
do
    c=$((a + b))
    echo -n "$c "
    a=$b
    b=$c
done

echo
```

Enter the value of n:
5
Fibonacci series:
1 1 2 3 5

```
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/OS_CD24016 (main)
$ |
```

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

```
MINGW64/c/Users/F0IN/OneDrive/Desktop/OS_CD24016
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/OS_CD24016 (main)
$#!/bin/bash

echo "Enter the value of n:"
read n

count=0
num=2

echo "First $n prime numbers are:"

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

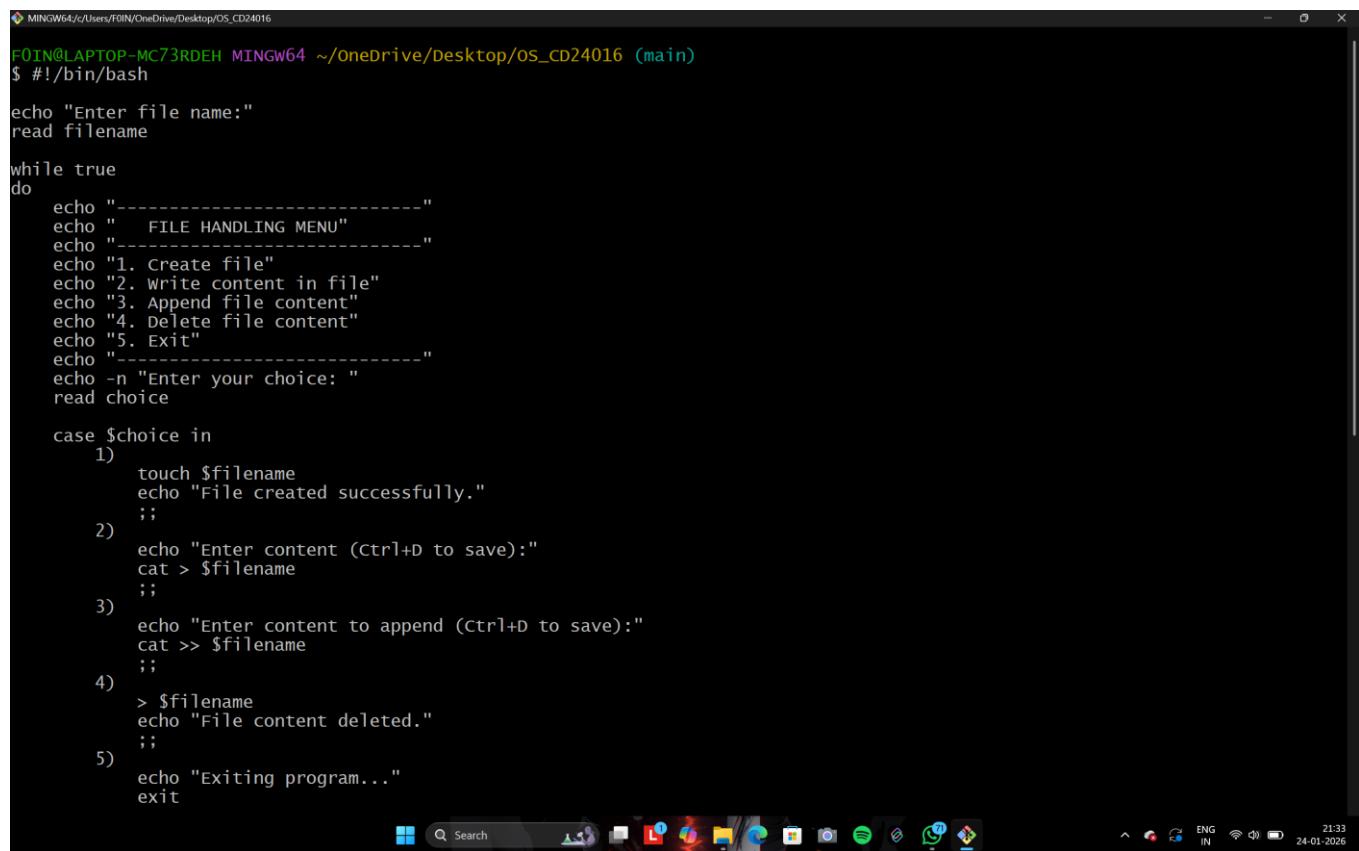
echo
```

Enter the value of n:
10
First 10 prime numbers are:
2 3 5 7 11 13 17 19 23 29

```
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/OS_CD24016 (main)
$
```

5. Write menu driven program for file handling activity

- Creation of file
- Write content in the file
- Append file content
- Delete file content



The screenshot shows a Windows desktop environment with a terminal window open in the foreground. The terminal window has a black background and white text. It displays a bash script for a menu-driven file handling program. The script prompts the user to enter a file name, then enters a loop where it prints a menu with options 1 through 5. Option 1 creates a file, option 2 writes content to it, option 3 appends content to it, option 4 deletes the content, and option 5 exits the program. The desktop taskbar at the bottom shows various pinned icons, and the system tray indicates the date as 24-01-2026 and the time as 21:33.

```
FOIN@LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/OS_CD24016 (main)
$#!/bin/bash

echo "Enter file name:"
read filename

while true
do
    echo "-----"
    echo " FILE HANDLING MENU"
    echo "-----"
    echo "1. Create file"
    echo "2. Write content in file"
    echo "3. Append file content"
    echo "4. Delete file content"
    echo "5. Exit"
    echo "-----"
    echo -n "Enter your choice: "
    read choice

    case $choice in
        1)
            touch $filename
            echo "File created successfully."
            ;;
        2)
            echo "Enter content (Ctrl+D to save):"
            cat > $filename
            ;;
        3)
            echo "Enter content to append (Ctrl+D to save):"
            cat >> $filename
            ;;
        4)
            > $filename
            echo "File content deleted."
            ;;
        5)
            echo "Exiting program..."
            exit
    esac
done
```

```
MINGW64/c/Users/F01N/OneDrive/Desktop/OS_CD24016
5)      echo "Exiting program..."
      exit
      ;;
*)
doneesac  ;;ho "Invalid choice! Try again."
Enter file name:
deven
-----
FILE HANDLING MENU
-----
1. Create file
2. Write content in file
3. Append file content
4. Delete file content
5. Exit
-----
Enter your choice: 1
File created successfully.
-----
FILE HANDLING MENU
-----
1. Create file
2. Write content in file
3. Append file content
4. Delete file content
5. Exit
-----
Enter your choice: 2
Enter content (ctrl+D to save):
CD24016
-----
FILE HANDLING MENU
-----
1. Create file
2. Write content in file
3. Append file content
4. Delete file content
5. Exit
-----
Enter your choice: |
```

