

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/FOIN/OneDrive/Desktop/OS_CD24016
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/FOIN/OneDrive/Desktop/OS_CD24016
PS/IN/LAPTOP-MC73RDEH MINGW64 ~/OneDrive/Desktop/os_CD24016 (main)
$ #!/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/F01N/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/F01N/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
- Upend file content
- Delete file content

```
MINGW64/c/Users/FOIN/OneDrive/Desktop/OS_CD24016
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/FGIN/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: |
```

```
deven
File Edit View
H1 100% Unix (LF) UTF-8
CD24016
Ln 1, Col 1 | 8 characters Plain text
21:35 24-01-2026
```