Practical 3

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/practical3

```
  GNU nano 7.2
#!/bin/bash

echo "Enter Student Name:"
read name

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))

if [ $percentage -ge 60 ]; then
    class="First Class"
elif [ $percentage -ge 50 ]; then
    class="Second Class"
elif [ $percentage -ge 40 ]; then
    class="Pass"
else
    class="Fail"
fi

echo "-------------------------"
echo "Name: $name"
echo "Total Marks: $total"
echo "Percentage: $percentage%"
echo "Class: $class"
```

MINGW64:/c/Users/Hp/practical3

```
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ mkdir practical3

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ cd practical3

Hp@LAPTOP-FSJAAHOO MINGW64 ~/practical3 (master)
$ nano marksheet.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~/practical3 (master)
$ chmod +x marksheet.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~/practical3 (master)
$ ./marksheet.sh
Enter Student Name:
Anushka
Enter marks of Subject 1:
60
Enter marks of Subject 2:
90
Enter marks of Subject 3:
75
-------------------------
Name: Anushka
Total Marks: 225
Percentage: 75%
Class: First 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

```
  GNU nano 7.2                                                menu.sh
#!/bin/bash

echo "------------------------------"
echo "      MENU DRIVEN PROGRAM"
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)
    echo "Calendar / Date information:"
    date
    ;;
2)
    date
    ;;
3)
    echo "Logged in user:"
    whoami
    ;;
4)
    tty
    ;;
5)
    echo "Exiting program..."
    exit
    ;;

^G Help          ^O Write Out     ^W Where Is      ^K Cut           ^T Execute       ^C Locati
^X Exit          ^R Read File     ^\ Replace       ^U Paste         ^J Justify       ^/ Go To
```

```
MINGW64:/c/Users/Hp

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ nano menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ chmod +x menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./menu.sh
------------------------------
      MENU DRIVEN PROGRAM
------------------------------
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

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ nano menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ chmod +x menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./menu.sh
------------------------------
      MENU DRIVEN PROGRAM
```

```
MINGW64:/c/Users/Hp
$ chmod +x menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./menu.sh
------------------------------
      MENU DRIVEN PROGRAM
------------------------------
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: 1
Calendar / Date information:
Tue Jan 20 21:35:42 IST 2026

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ chmod +x menu.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./menu.sh
------------------------------
      MENU DRIVEN PROGRAM
------------------------------
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
```

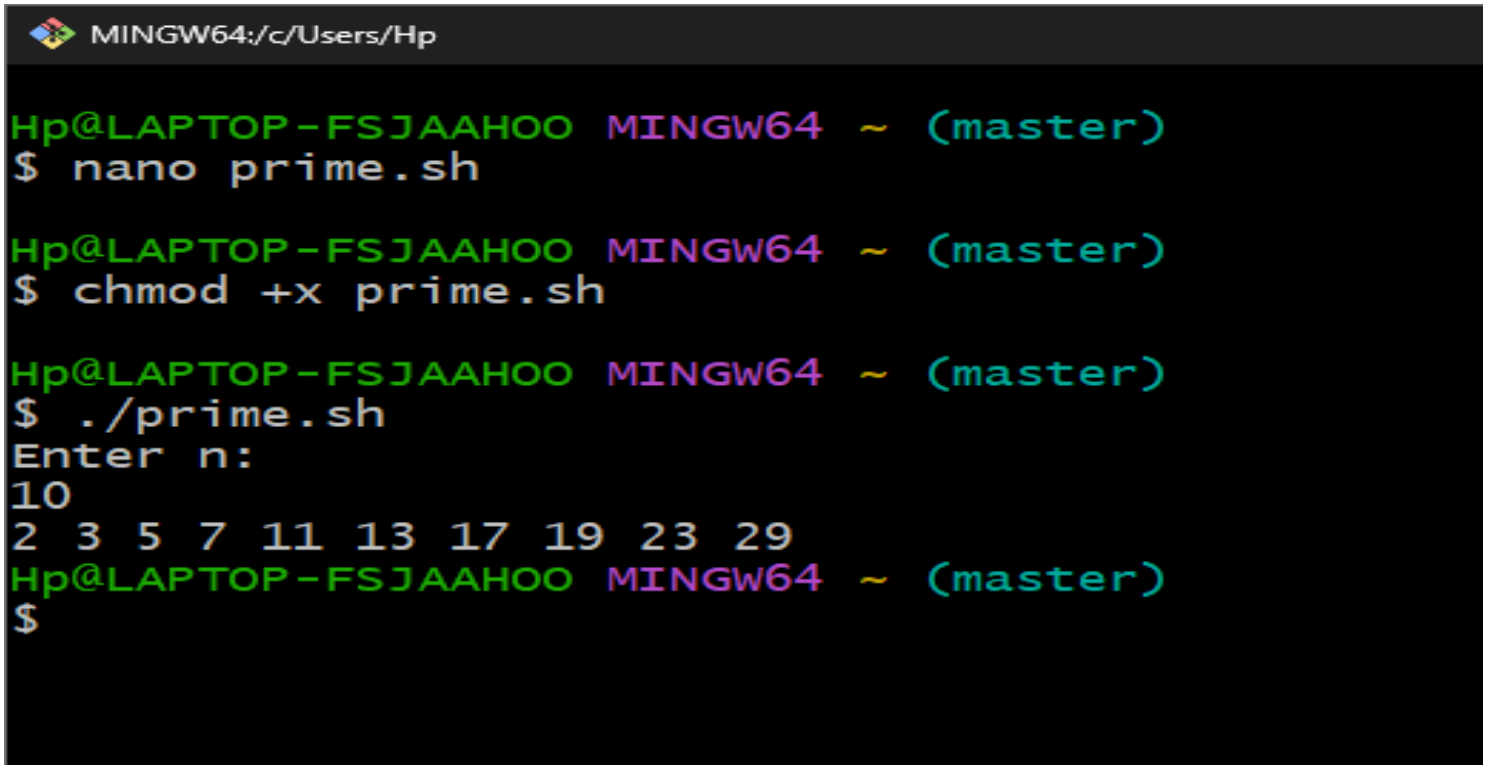
3. Write a shell script which will generate first n Fibonacci numbers like: 1, 1, 2, 3, 5, 13

```
MINGW64:/c/Users/Hp
  GNU nano 7.2                                  fibonacci.sh
#!/bin/bash

echo "Enter n:"
read n

a=1
b=1

echo "Fibonacci Series:"
echo -n "$a $b "

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

```
MINGW64:/c/Users/Hp

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ nano fibonacci.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ chmod +x fibonacci.sh

Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./fibonacci.sh
Enter n:
5
Fibonacci Series:
1 1 2 3 5
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$
```

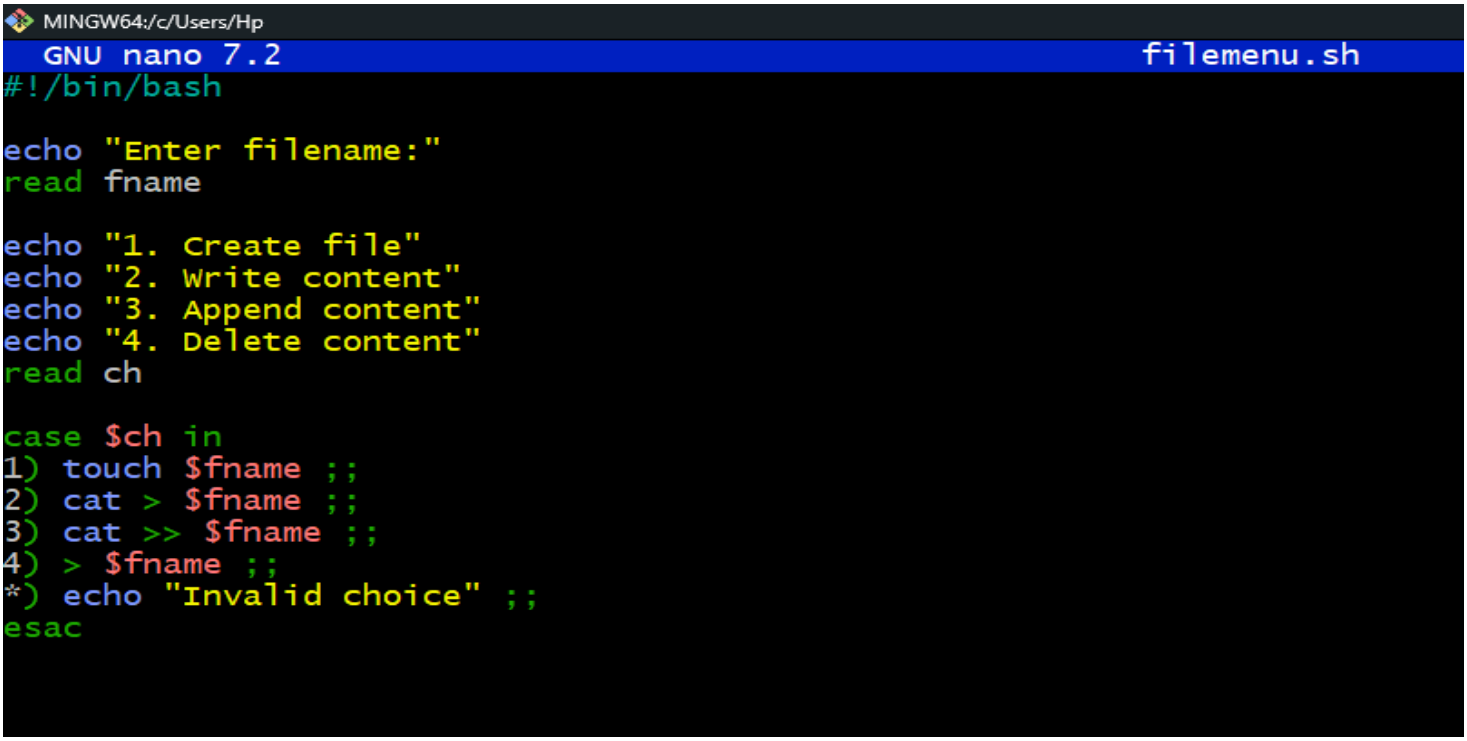
4. Write a shell script which will accept a number b and display first n prime numbers as output

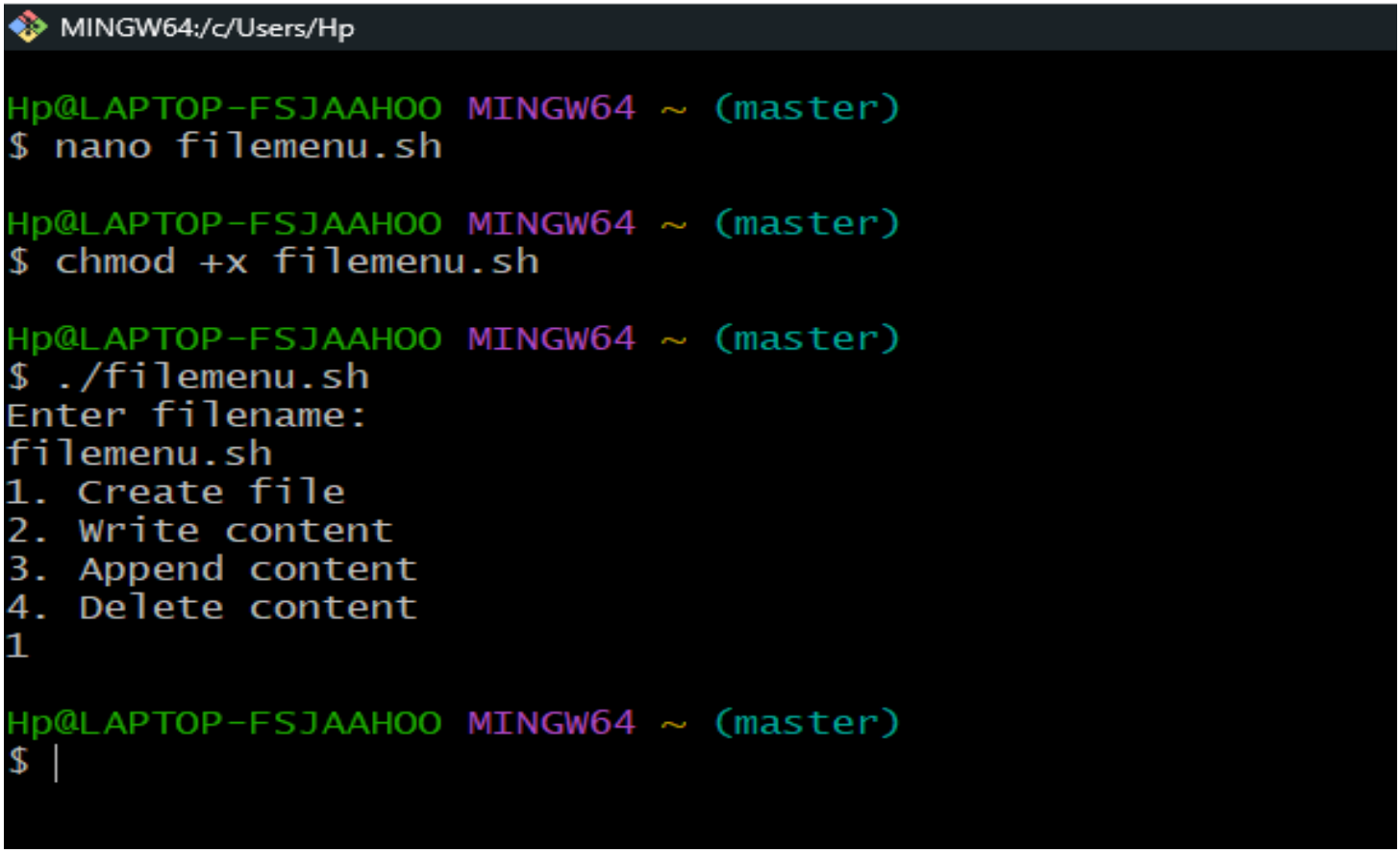
```
  GNU nano 7.2                    prime.sh
#!/bin/bash

echo "Enter n:"
read n

count=0
num=2

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

if [ $flag -eq 0 ]; then
echo -n "$num "
count=$((count+1))
fi
num=$((num+1))
done



                [ Read 25 lines ]
^G Help      ^O Write Out^W Where Is ^K Cut       ^T Execute
^X Exit      ^R Read File^\ Replace  ^U Paste     ^J Justify
```



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
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ nano filemenu.sh
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ chmod +x filemenu.sh
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$ ./filemenu.sh
Enter filename:
filemenu.sh
1. Create file
2. Write content
3. Append content
4. Delete content
1
Hp@LAPTOP-FSJAAHOO MINGW64 ~ (master)
$