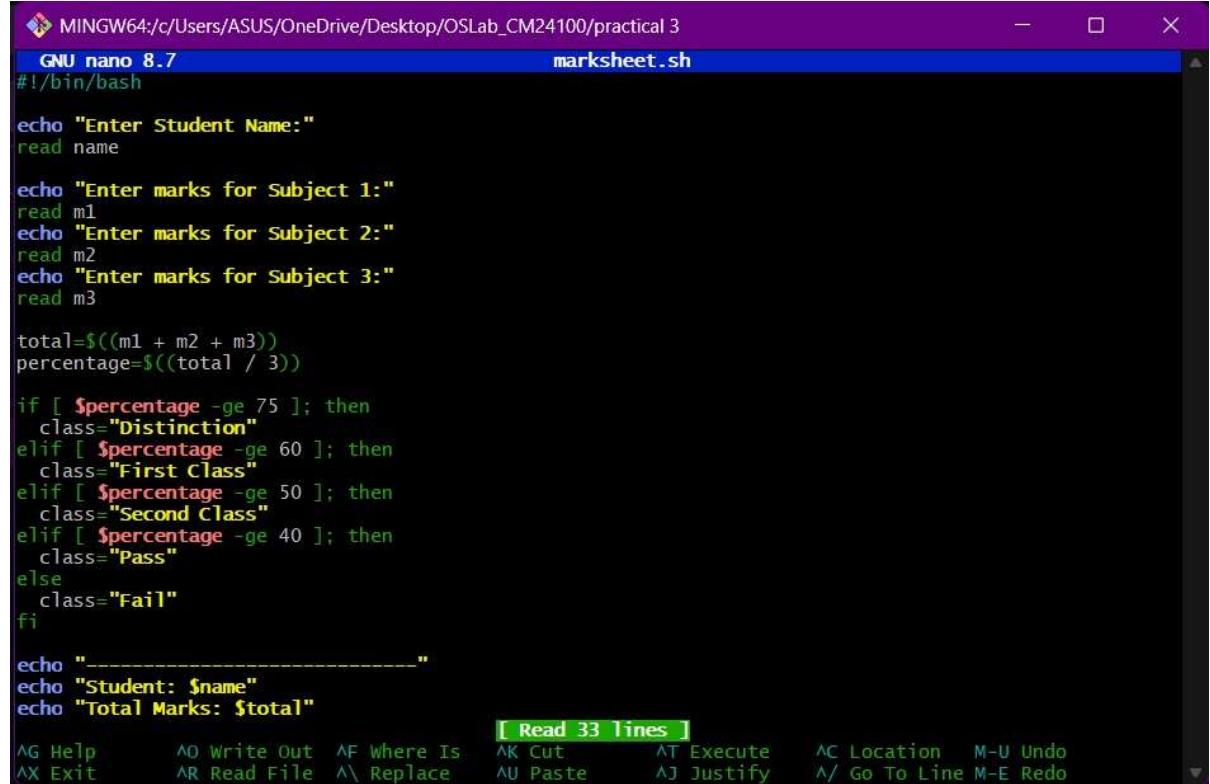


Practical 3

- I. 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/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
GNU nano 8.7                         marksheet.sh
#!/bin/bash

echo "Enter Student Name:"
read name

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))

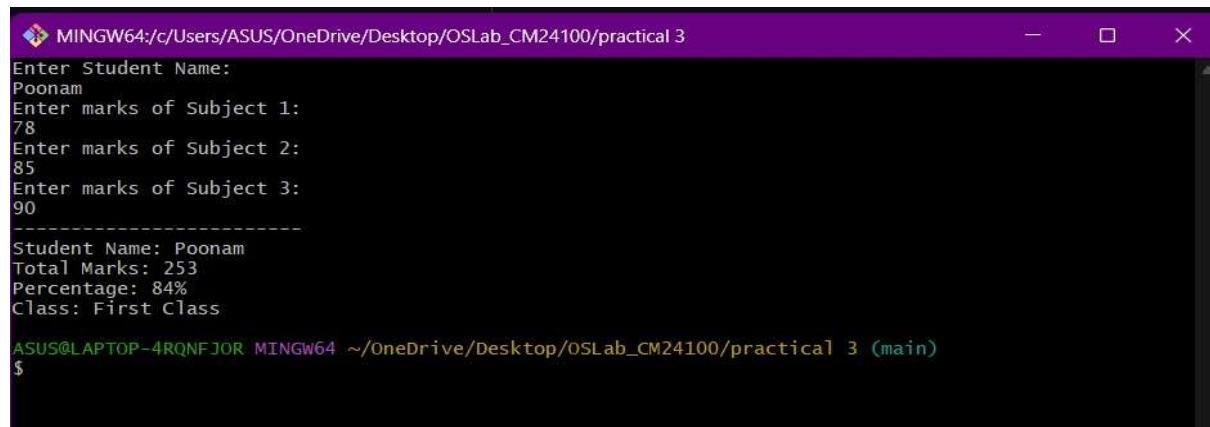
if [ $percentage -ge 75 ]; then
    class="Distinction"
elif [ $percentage -ge 60 ]; then
    class="First Class"
elif [ $percentage -ge 50 ]; then
    class="Second Class"
elif [ $percentage -ge 40 ]; then
    class="Pass"
else
    class="Fail"
fi

echo "-----"
echo "Student: $name"
echo "Total Marks: $total"

[ Read 33 Lines ]
```

The terminal window shows the code for a shell script named marksheet.sh. The script prompts the user for a student's name and three subject marks. It calculates the total marks, percentage, and class based on the percentage. The class is determined using if-elif-else statements. The output includes a separator line and displays the student's name and total marks.

OUTPUT:



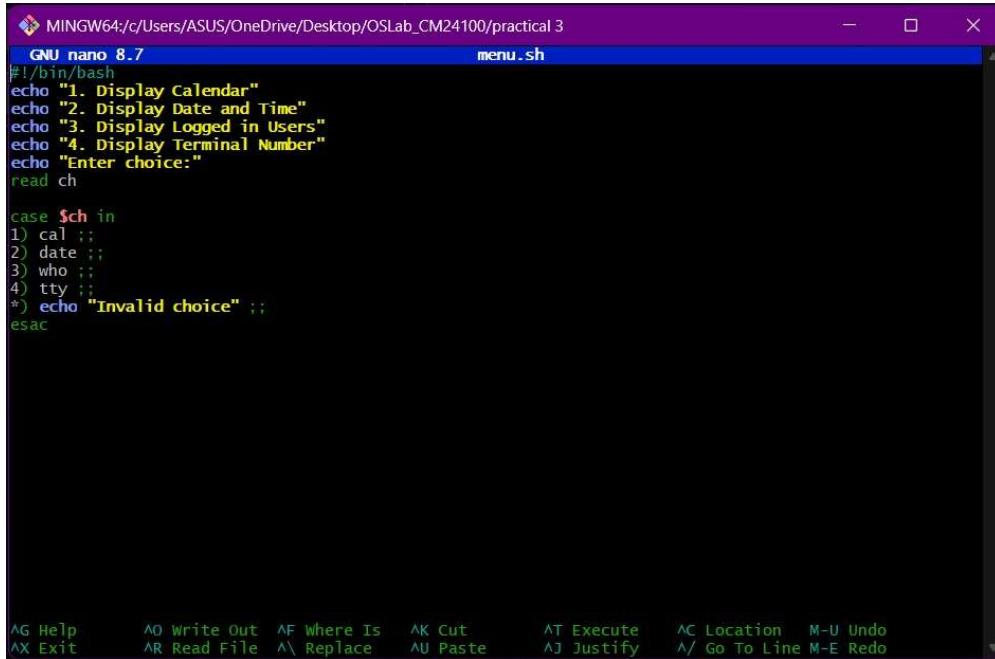
```
MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
Enter Student Name:
Poonam
Enter marks of Subject 1:
78
Enter marks of Subject 2:
85
Enter marks of Subject 3:
90
-----
Student Name: Poonam
Total Marks: 253
Percentage: 84%
Class: First Class

ASUS@LAPTOP-4RQNFJOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$
```

The terminal window shows the execution of the marksheet.sh script. The user is prompted for their name (Poonam) and three subject marks (78, 85, 90). The script then calculates the total marks (253), percentage (84%), and class (First Class). The output is displayed at the bottom of the terminal window.

Q2. 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 on Display Your terminal number.

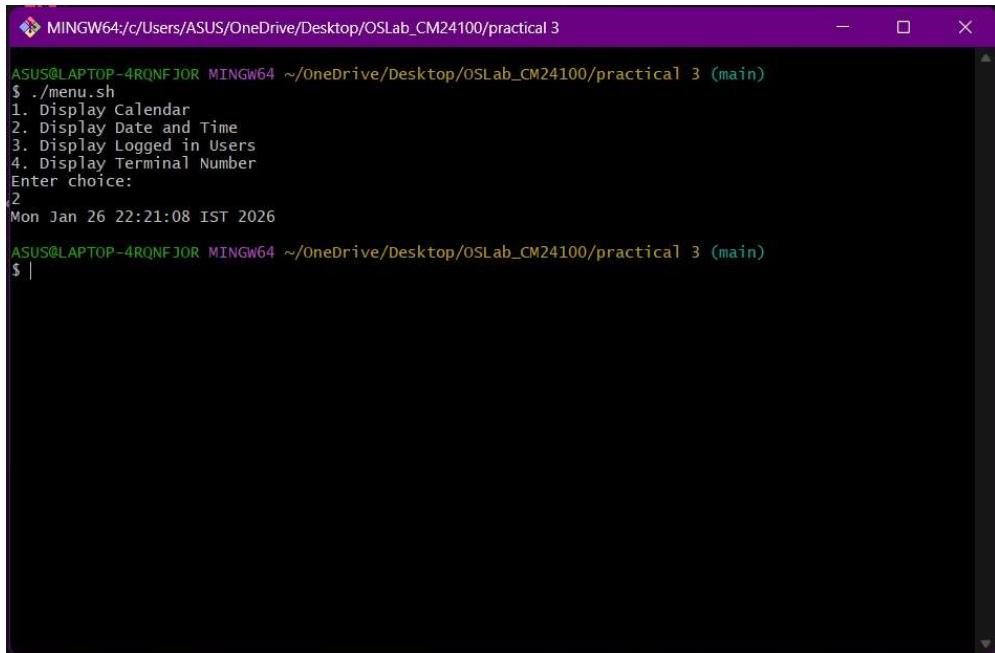
CODE:



```
MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
GNU nano 8.7          menu.sh
#!/bin/bash
echo "1. Display Calendar"
echo "2. Display Date and Time"
echo "3. Display Logged in Users"
echo "4. Display Terminal Number"
echo "Enter choice:"
read ch

case $ch in
1) cal ;;
2) date ;;
3) who ;;
4) tty ;;
*) echo "Invalid choice" ;;
esac
```

OUTPUT:



```
MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
ASUS@LAPTOP-4RQNFJ0R MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$ ./menu.sh
1. Display Calendar
2. Display Date and Time
3. Display Logged in Users
4. Display Terminal Number
Enter choice:
2
Mon Jan 26 22:21:08 IST 2026
ASUS@LAPTOP-4RQNFJ0R MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$ |
```

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

CODE:

The screenshot shows a terminal window titled "MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3". The window title bar also displays "GNU nano 8.7" and the file name "fibonacci.sh". The terminal content is a bash script named "fibonacci.sh" that generates a Fibonacci series. The script starts by prompting the user to enter a number, initializes variables a and b to 1, and then enters a loop where it prints the current values of a and b, calculates the next value c as the sum of a and b, and then updates a and b to b and c respectively. The loop continues until i reaches n. The script ends with a "done" message. At the bottom of the terminal, there is a menu bar with various keyboard shortcuts.

```
#!/bin/bash
echo "Enter number:"
read n
a=1
b=1
echo "Fibonacci series:"
echo $a
echo $b
for (( i=3; i<=n; i++ ))
do
    c=$((a + b))
    echo $c
    a=$b
    b=$c
done
```

[Read 20 Times]

^G Help ^O Write Out ^F Where Is ^K Cut ^T Execute ^C Location M-U Undo
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo

OUTPUT:

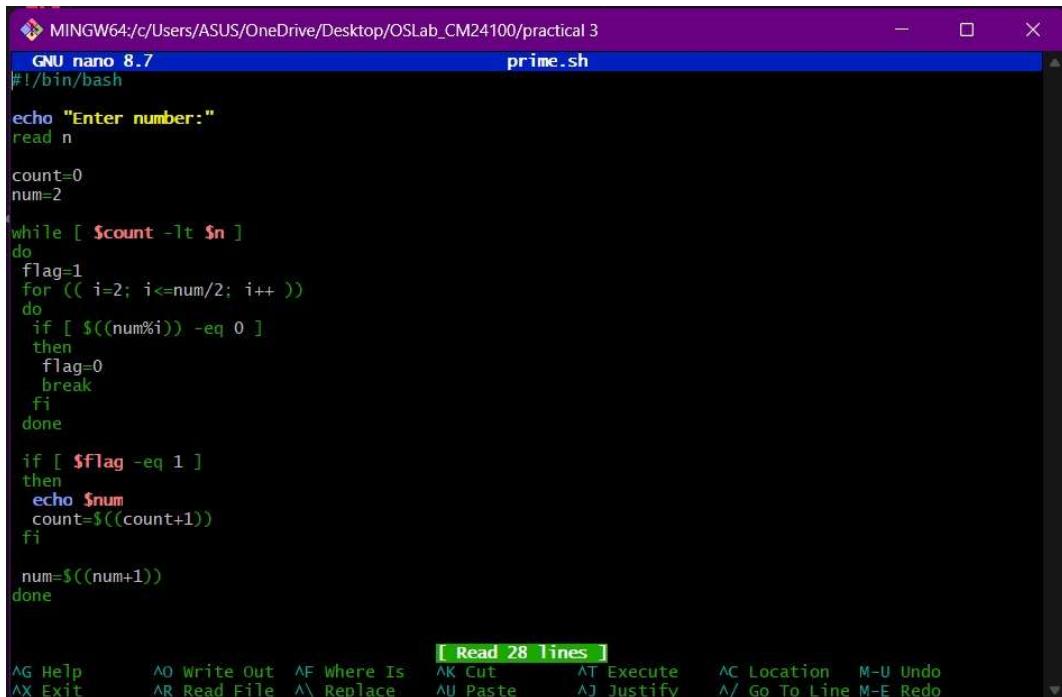
The screenshot shows a terminal window titled "MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3". The terminal content shows the execution of the "fibonacci.sh" script. The user is prompted to enter a number, which they type "7". The script then outputs the Fibonacci series up to the 7th term: 1, 1, 2, 3, 5, 8, 13. The terminal prompt at the end indicates the session is still active. The bottom of the terminal shows the system information: "ASUS@LAPTOP-4RQNFIOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)" and a command line prompt "\$ |".

```
Enter number:
7
Fibonacci series:
1
1
2
3
5
8
13
```

ASUS@LAPTOP-4RQNFIOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
\$ |

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/OSLab_CM24100/practical 3
GNU nano 8.7          prime.sh
#!/bin/bash

echo "Enter number:"
read n

count=0
num=2

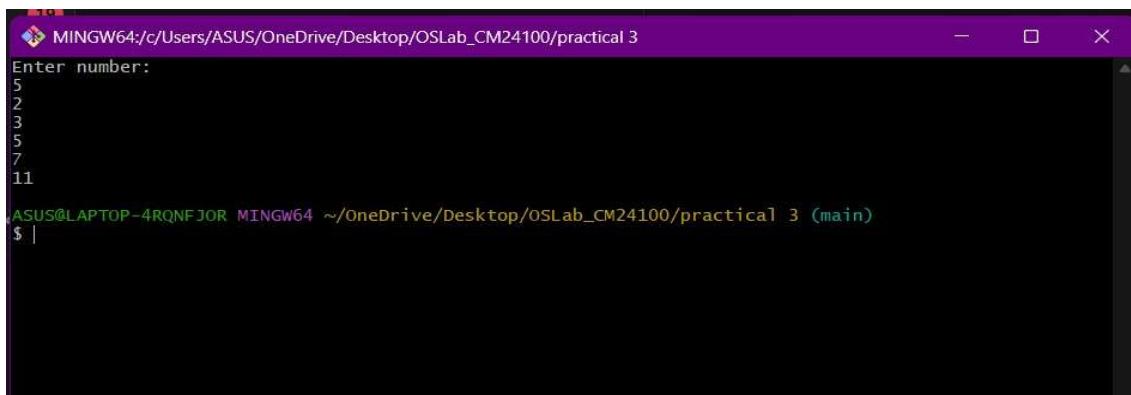
while [ $count -lt $n ]
do
    flag=1
    for (( i=2; i<=num/2; i++ ))
    do
        if [ $((num%i)) -eq 0 ]
        then
            flag=0
            break
        fi
    done

    if [ $flag -eq 1 ]
    then
        echo $num
        count=$((count+1))
    fi

    num=$((num+1))
done

[ Read 28 lines ]
^G Help      ^O Write Out  ^F Where Is  ^K Cut      ^T Execute  ^C Location  M-U Undo
^X Exit      ^R Read File  ^\ Replace   ^U Paste    ^J Justify  ^/ Go To Line M-E Redo
```

OUTPUT:



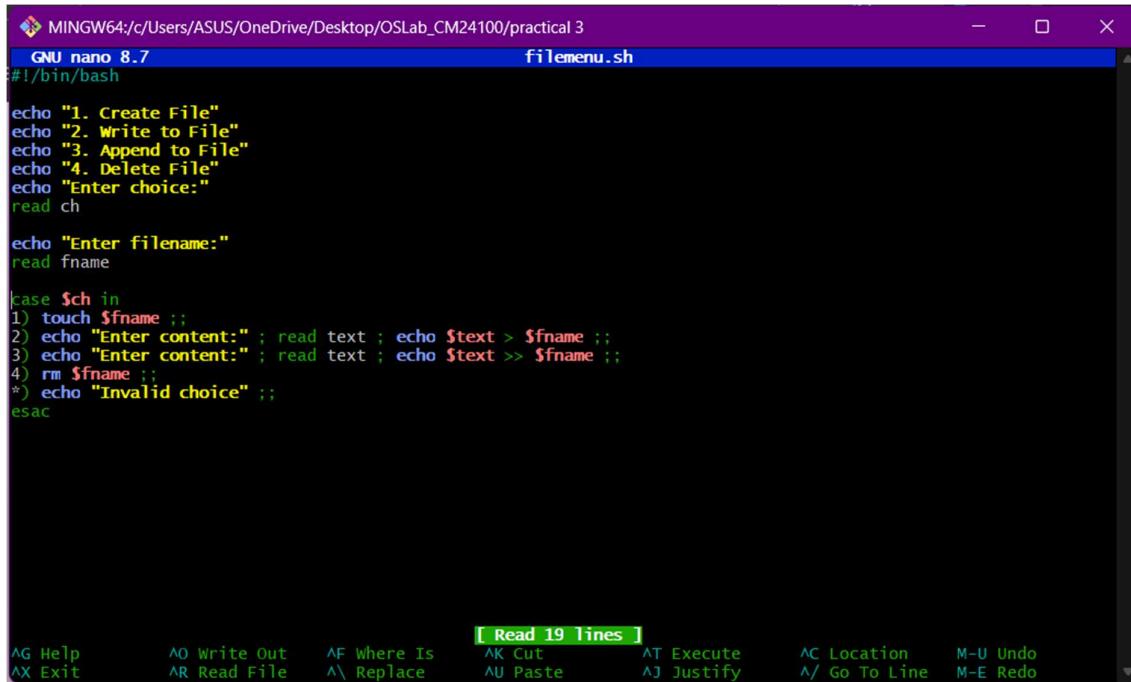
```
MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
Enter number:
5
2
3
5
7
11

ASUS@LAPTOP-4RQNFJOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$ |
```

5. Write menu driven program for file handling activity

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

CODE:



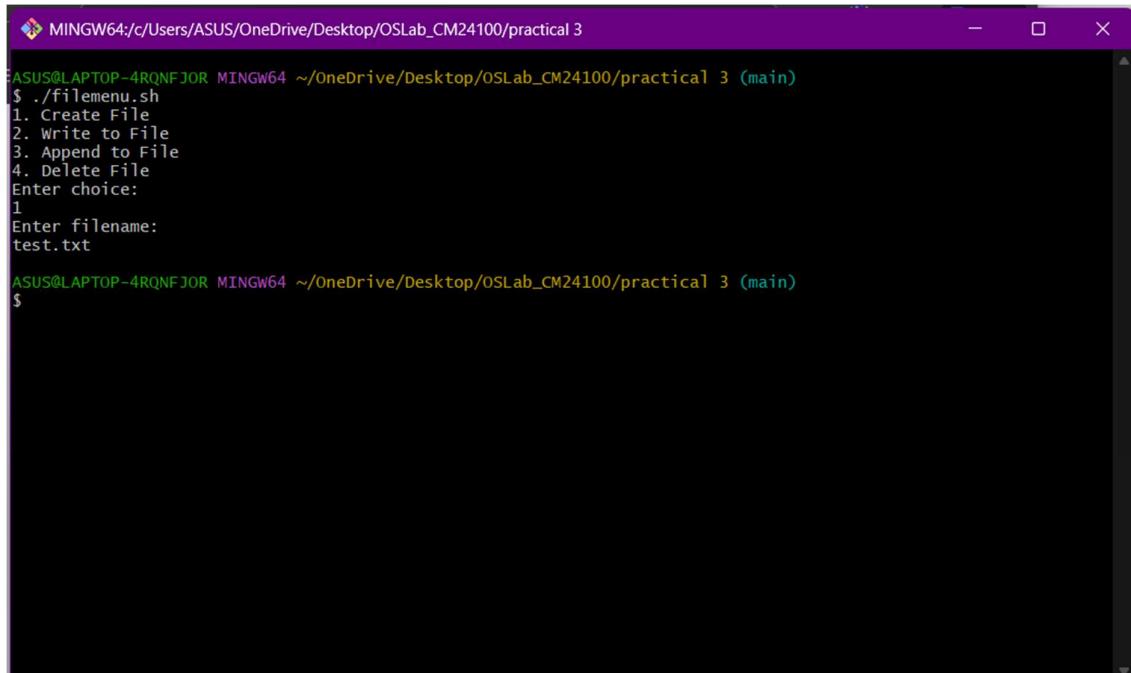
```
MINGW64:/c/Users/ASUS/OneDrive/Desktop/OSLab_CM24100/practical 3
GNU nano 8.7          filmenu.sh
#!/bin/bash

echo "1. Create File"
echo "2. Write to File"
echo "3. Append to File"
echo "4. Delete File"
echo "Enter choice:"
read ch

echo "Enter filename:"
read fname

case $ch in
1) touch $fname ;;
2) echo "Enter content:" ; read text ; echo $text > $fname ;;
3) echo "Enter content:" ; read text ; echo $text >> $fname ;;
4) rm $fname ;;
*) echo "Invalid choice" ;;
esac
```

OUTPUT:



```
ASUS@LAPTOP-4RQNFJOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$ ./filmenu.sh
1. Create File
2. Write to File
3. Append to File
4. Delete File
Enter choice:
1
Enter filename:
test.txt

ASUS@LAPTOP-4RQNFJOR MINGW64 ~/OneDrive/Desktop/OSLab_CM24100/practical 3 (main)
$
```