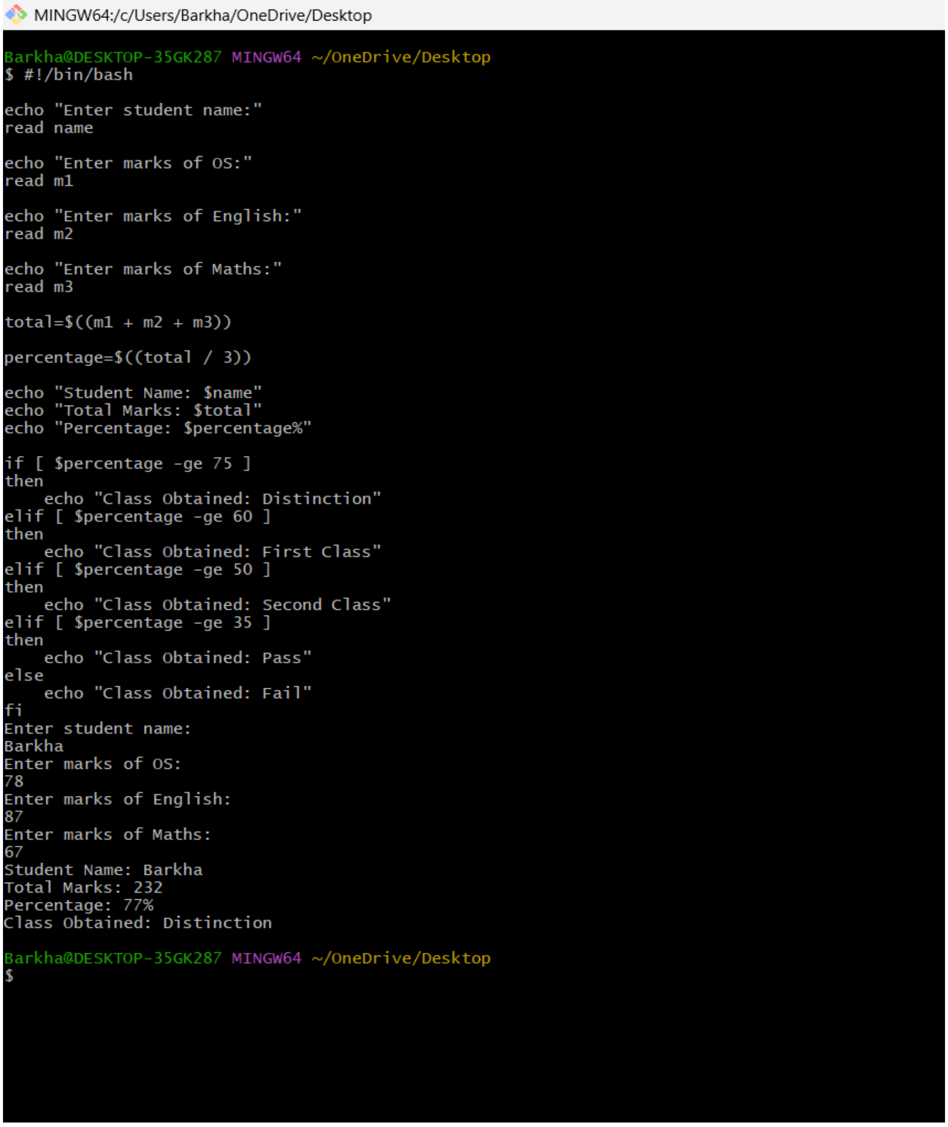
OS Practical 2 :-

1. **AIM: 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.**

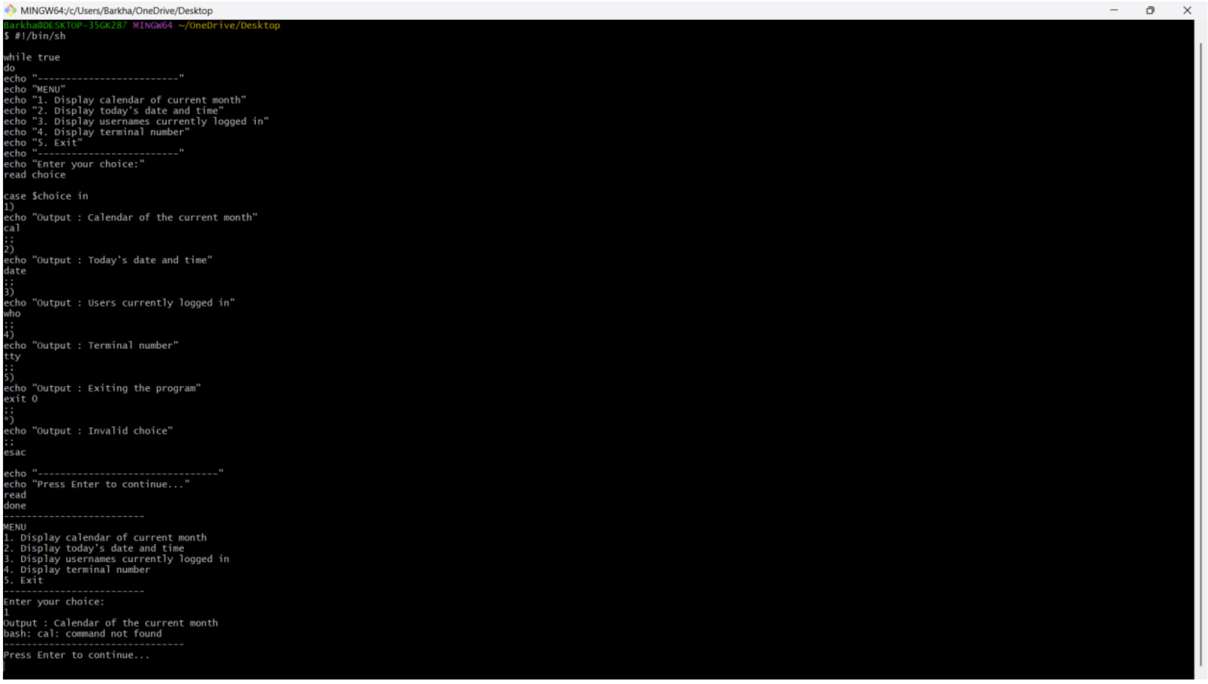


MINGW64:/c/Users/Barkha/OneDrive/Desktop

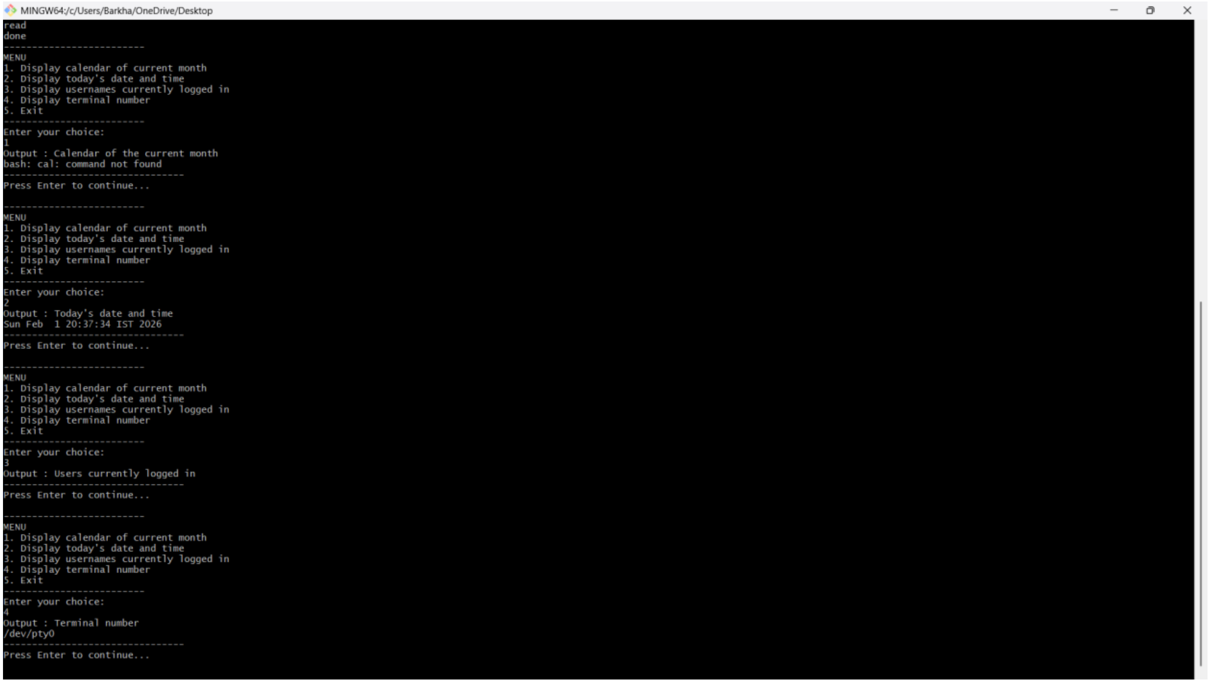
```
Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$ #!/bin/bash

echo "Enter student name:"
read name

echo "Enter marks of OS:"
read m1

echo "Enter marks of English:"
read m2

echo "Enter marks of Maths:"
read m3

total=$((m1 + m2 + m3))

percentage=$((total / 3))

echo "Student Name: $name"
echo "Total Marks: $total"
echo "Percentage: $percentage%"

if [ $percentage -ge 75 ]
then
    echo "Class Obtained: Distinction"
elif [ $percentage -ge 60 ]
then
    echo "Class Obtained: First Class"
elif [ $percentage -ge 50 ]
then
    echo "Class Obtained: Second Class"
elif [ $percentage -ge 35 ]
then
    echo "Class Obtained: Pass"
else
    echo "Class Obtained: Fail"
fi
Enter student name:
Barkha
Enter marks of OS:
78
Enter marks of English:
87
Enter marks of Maths:
67
Student Name: Barkha
Total Marks: 232
Percentage: 77%
Class Obtained: Distinction

Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$
```

2. **AIM: WRITE A MENU DRIVEN SHELL SCRIPT WHICH WILL PRINT THE FOLLOWING MENU AND EXECUTE THE GIVEN TASK.**

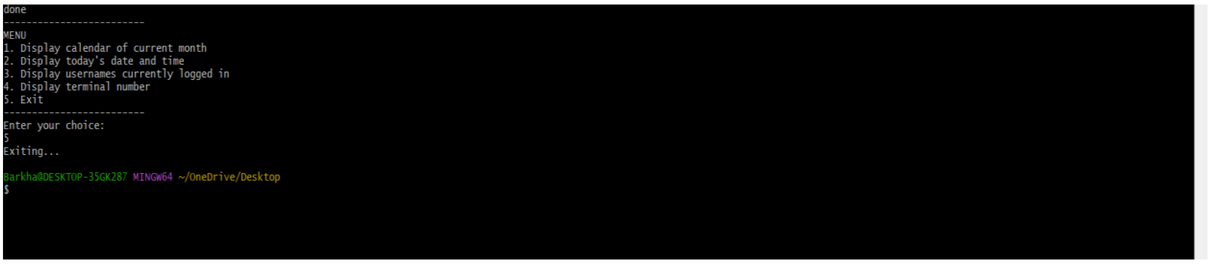
1) **DISPLAY CALENDAR OF CURRENT MONTH.**
2) **DISPLAY TODAY'S DATE AND TIME.**
3) **DISPLAY USERNAMES THOSE ARE CURRENTLY LOGGED IN THE SYSTEM.**
4) **DISPLAY YOUR TERMINAL NUMBER.**



```
Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$ #!/bin/sh

while true
do
echo "------------------------"
echo "MENU"
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 terminal number"
echo "5. Exit"
echo "------------------------"
echo "Enter your choice:"
read choice

case $choice in
1)
echo "Output : Calendar of the current month"
cal
;;
2)
echo "Output : Today's date and time"
date
;;
3)
echo "Output : Users currently logged in"
who
;;
4)
echo "Output : Terminal number"
tty
;;
5)
echo "Output : Exiting the program"
exit 0
;;
*)
echo "Output : Invalid choice"
;;
esac

echo "--------------------------------"
echo "Press Enter to continue..."
read
done
------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
1
Output : Calendar of the current month
bash: cal: command not found
--------------------------------
Press Enter to continue...
```

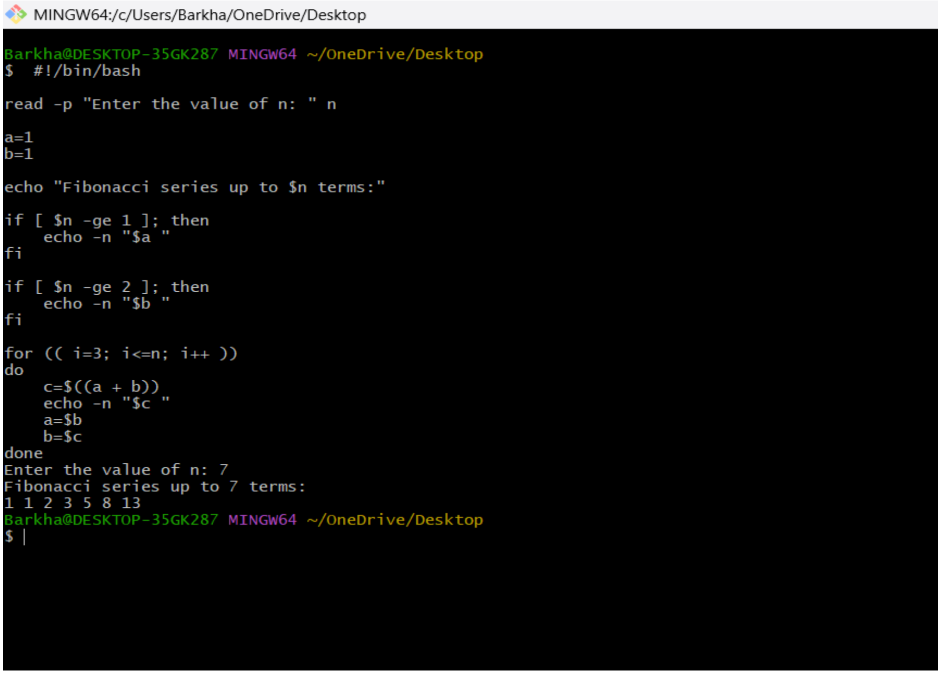


```
read
done
------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
1
Output : Calendar of the current month
bash: cal: command not found
--------------------------------
Press Enter to continue...

------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
2
Output : Today's date and time
Sun Feb  1 20:37:34 IST 2026
--------------------------------
Press Enter to continue...

------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
3
Output : Users currently logged in
--------------------------------
Press Enter to continue...

------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
4
Output : Terminal number
/dev/pty0
--------------------------------
Press Enter to continue...
```



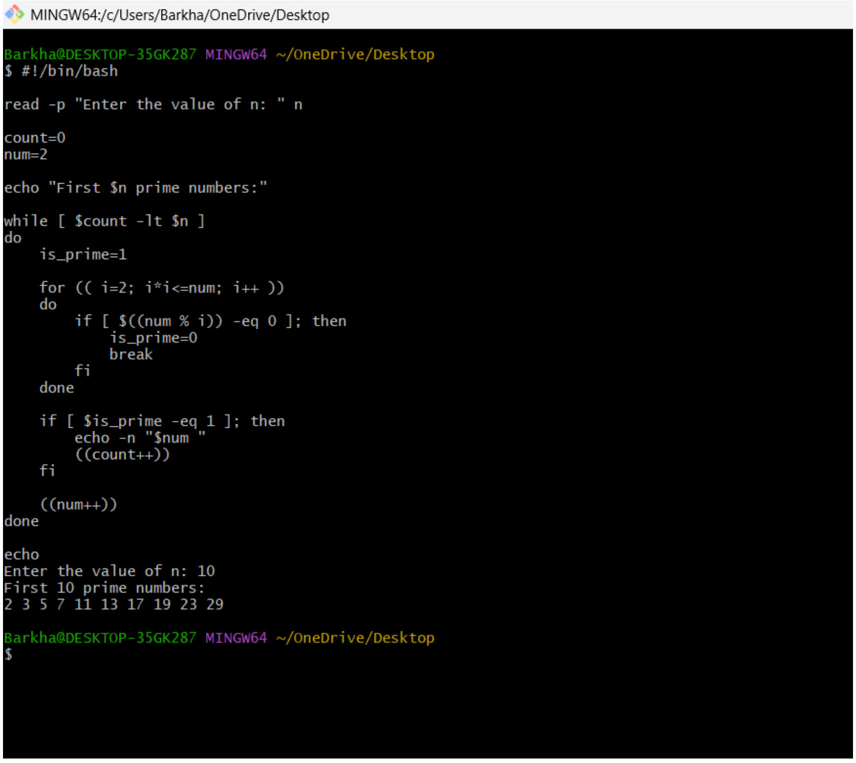
```
done
------------------------
MENU
1. Display calendar of current month
2. Display today's date and time
3. Display usernames currently logged in
4. Display terminal number
5. Exit
------------------------
Enter your choice:
5
Exiting...

Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$
```

3. AIM: WRITE A SHELL SCRIPT WHICH WILL GENERATE FIRST N FIBONACCI NUMBERS LIKE: 1, 1, 2, 3, 5 ,13.



```
Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$  #!/bin/bash

read -p "Enter the value of n: " n

a=1
b=1

echo "Fibonacci series up to $n terms:"

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
Enter the value of n: 7
Fibonacci series up to 7 terms:
1 1 2 3 5 8 13
Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$ |
```

4. WRITE A SHELL SCRIPT WHICH WILL ACCEPT A NUMBER B AND DISPLAY FIRST N PRIME NUMBERS AS OUTPUT.



```
Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$ #!/bin/bash

read -p "Enter the value of n: " n

count=0
num=2

echo "First $n prime numbers:"

while [ $count -lt $n ]
do
    is_prime=1

    for (( i=2; i*i<=num; i++ ))
    do
        if [ $((num % i)) -eq 0 ]; then
            is_prime=0
            break
        fi
    done

    if [ $is_prime -eq 1 ]; then
        echo -n "$num "
        ((count++))
    fi

    ((num++))
done

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

Barkha@DESKTOP-35GK287 MINGW64 ~/OneDrive/Desktop
$
```

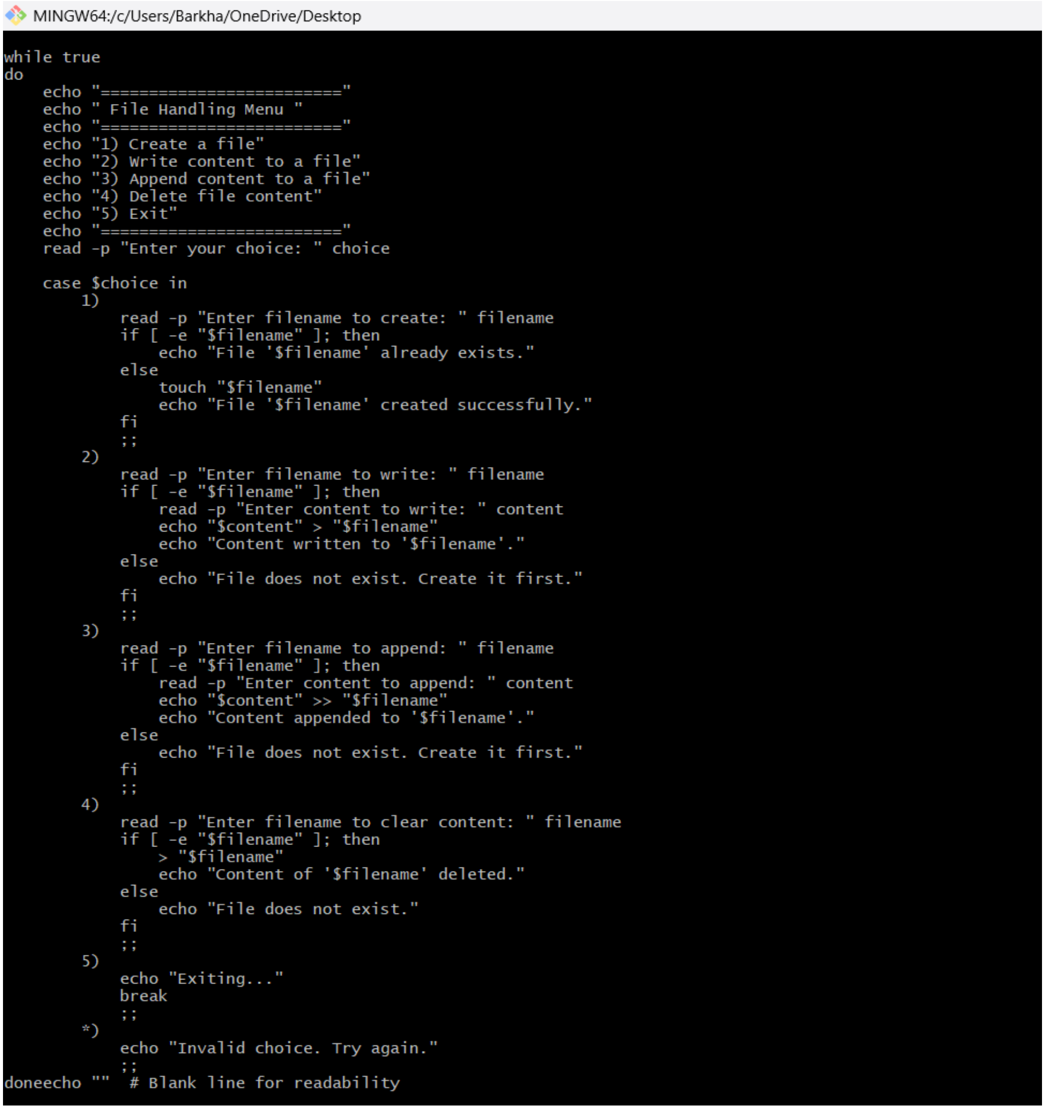
5. AIM: WRITE MENU DRIVEN PROGRAM FOR FILE HANDLING ACTIVITY.

1) CREATION OF FILE.

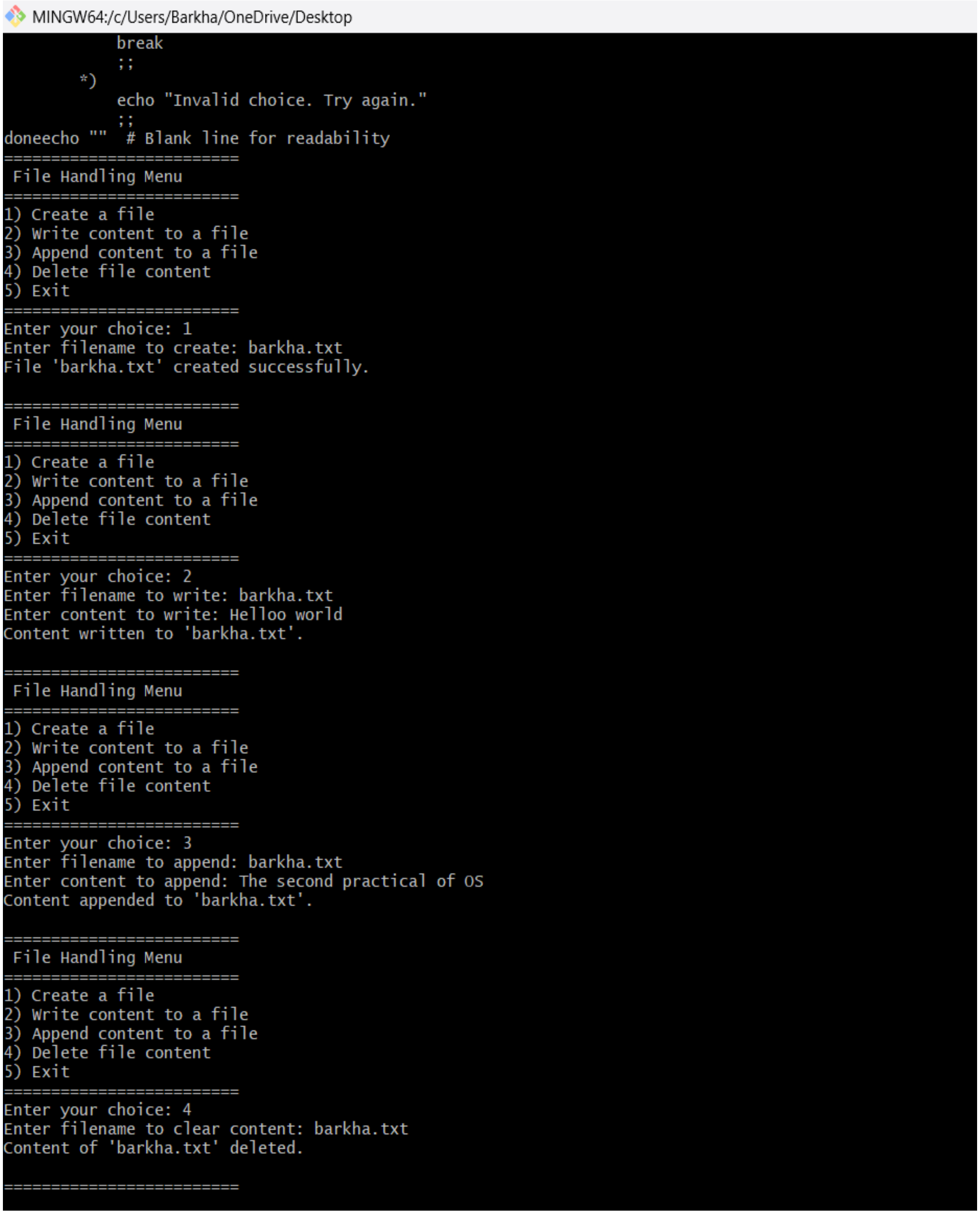
2) WRITE CONTENT IN THE FILE.

3) APPEND FILE CONTENT.

4) DELETE FILE CONTENT.



```
while true
do
    echo "========================="
    echo " File Handling Menu "
    echo "========================="
    echo "1) Create a file"
    echo "2) Write content to a file"
    echo "3) Append content to a file"
    echo "4) Delete file content"
    echo "5) Exit"
    echo "========================="
    read -p "Enter your choice: " choice

    case $choice in
        1)
            read -p "Enter filename to create: " filename
            if [ -e "$filename" ]; then
                echo "File '$filename' already exists."
            else
                touch "$filename"
                echo "File '$filename' created successfully."
            fi
            ;;
        2)
            read -p "Enter filename to write: " filename
            if [ -e "$filename" ]; then
                read -p "Enter content to write: " content
                echo "$content" > "$filename"
                echo "Content written to '$filename'."
            else
                echo "File does not exist. Create it first."
            fi
            ;;
        3)
            read -p "Enter filename to append: " filename
            if [ -e "$filename" ]; then
                read -p "Enter content to append: " content
                echo "$content" >> "$filename"
                echo "Content appended to '$filename'."
            else
                echo "File does not exist. Create it first."
            fi
            ;;
        4)
            read -p "Enter filename to clear content: " filename
            if [ -e "$filename" ]; then
                > "$filename"
                echo "Content of '$filename' deleted."
            else
                echo "File does not exist."
            fi
            ;;
        5)
            echo "Exiting..."
            break
            ;;
        *)
            echo "Invalid choice. Try again."
            ;;
doneecho ""  # Blank line for readability
```



```
            break
            ;;
        *)
            echo "Invalid choice. Try again."
            ;;
doneecho ""  # Blank line for readability
=========================
 File Handling Menu
=========================
1) Create a file
2) Write content to a file
3) Append content to a file
4) Delete file content
5) Exit
=========================
Enter your choice: 1
Enter filename to create: barkha.txt
File 'barkha.txt' created successfully.

=========================
 File Handling Menu
=========================
1) Create a file
2) Write content to a file
3) Append content to a file
4) Delete file content
5) Exit
=========================
Enter your choice: 2
Enter filename to write: barkha.txt
Enter content to write: Helloo world
Content written to 'barkha.txt'.

=========================
 File Handling Menu
=========================
1) Create a file
2) Write content to a file
3) Append content to a file
4) Delete file content
5) Exit
=========================
Enter your choice: 3
Enter filename to append: barkha.txt
Enter content to append: The second practical of OS
Content appended to 'barkha.txt'.

=========================
 File Handling Menu
=========================
1) Create a file
2) Write content to a file
3) Append content to a file
4) Delete file content
5) Exit
=========================
Enter your choice: 4
Enter filename to clear content: barkha.txt
Content of 'barkha.txt' deleted.

=========================
```