

Practical_No.02

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.

Output 1 :

```
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (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
78
Enter marks of Maths
85
Enter marks of Science
72
Student: Total Marks = 235
Percentage = 78
Class: Distinction
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$ #!/bin/bash
```

2. Write a menu driven shell script which will print the following menu and execute the given task.

- Display calendar of given task.
- Display today's date and time.
- Display username those are currently logged in the system.
- Display your terminal number

Output 2 :

```
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$ cho "1. Calendar of current month"
echo "2. Today's date and time"
echo "3. Logged in users"
echo "4. Terminal number"

echo "Enter your choice"
read ch

if [ $ch -eq 1 ]; then
    date +"%B %Y"
elif [ $ch -eq 2 ]; then
    date
elif [ $ch -eq 3 ]; then
    who
elif [ $ch -eq 4 ]; then
    tty
else
    echo "Invalid choice"
fi
bash: cho: command not found
2. Today's date and time
3. Logged in users
4. Terminal number
Enter your choice
1
January 2026
```

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

```
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$ #!/bin/bash

echo "Enter how many Fibonacci numbers you want"
read n

a=1
b=1

echo "Fibonacci Series:"

if [ "$n" -ge 1 ]; then
    printf "%d " "$a"
fi

if [ "$n" -ge 2 ]; then
    printf "%d " "$b"
fi

for (( i=3; i<=n; i++ ))
do
    c=$((a + b))
    printf "%d " "$c"
    a=$b
    b=$c
done
Enter how many Fibonacci numbers you want
7
Fibonacci Series:
1 1 2 3 5 8 13
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$
```

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

Output 4 :

```
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (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=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

echo
Enter the value of n
5
First 5 prime numbers are:
2 3 5 7 11
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$
```

5. Write menu driven program for file handling activity

- **Creation of file.**
- **Write content in the file.**
- **Uopen file content.**
- **Delete file content.**

Output 5:

```
HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$ #!/bin/bash

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

echo "Enter file name:"
read fname

case $ch in
1)
    touch $fname
    echo "File created"
    ;;
2)
    echo "Enter content (Ctrl+D to save):"
    cat > $fname
    ;;
3)
    echo "Enter content to append (Ctrl+D to save):"
    cat >> $fname
    ;;
4)
    > $fname
    echo "File content deleted"
    ;;
*)
    echo "Invalid choice"
    ;;
esac

1) Create File
2) Write Content
3) Append Content
4) Delete File Content
Enter choice:

Enter file name:
prachi_CD24030
File created

HP@LAPTOP-9M3IBDT5 MINGW64 ~/OneDrive/Desktop/OS_CD24030 (main)
$ |
```

