

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.

Code:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
GNU nano 8.5 marksheet.sh Modified
#!/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))

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

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

^G Help      ^O Write Out ^F Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

Output:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112 (main)
$ mkdir Practical_3

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112 (main)
$ cd Practical_3

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3
(main)
$ pwd
/d/OS_CM24112/OSLab_CM24112/Practical_3

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3
(main)
$ nano marksheet.sh

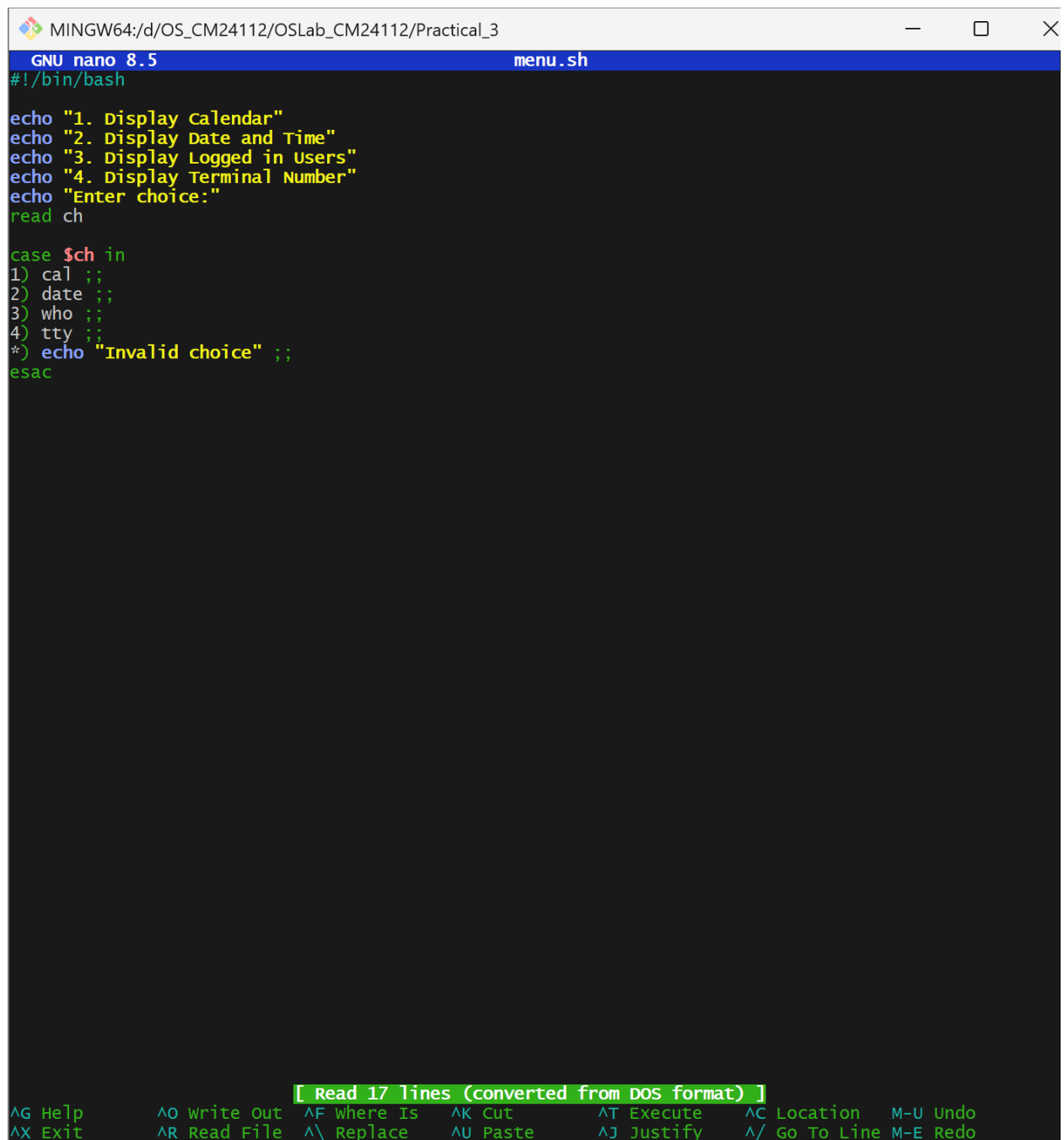
Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ chmod +x marksheet.sh

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ ./marksheet.sh
Enter Student Name:
Sharwari Nimkar
Enter marks of Subject 1:
98
Enter marks of Subject 2:
70
Enter marks of Subject 3:
83
-----
Student Name: Sharwari Nimkar
Total Marks: 251
Percentage: 83%
Class: First Class

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ |
```

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:



The screenshot shows a terminal window titled "MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3" with standard window controls. The editor is GNU nano 8.5, editing a file named "menu.sh". The script content is as follows:

```
#!/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
```

At the bottom of the terminal, a status bar indicates "[Read 17 lines (converted from DOS format)]". Below this, a list of keyboard shortcuts is displayed:

^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:

```
Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ nano menu.sh

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ chmod +x menu.sh
./menu.sh
1. Display Calendar
2. Display Date and Time
3. Display Logged in Users
4. Display Terminal Number
Enter choice:
2
Tue Jan 20 19:28:24 IST 2026

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$
```

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

Code:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
GNU nano 8.5 fibonacci.sh
#!/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
```

Output:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
shars@shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ nano fibonacci.sh
shars@shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ chmod +x fibonacci.sh
./fibonacci.sh
Enter number:
23
Fibonacci Series:
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
2584
4181
6765
10946
17711
28657
```

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

Code:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
GNU nano 8.5 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
```

Output:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ nano prime.sh

shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ chmod +x prime.sh
./prime.sh
Enter number:
23
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83

shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$
```

5. Write menu driven program for file handling activity

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

Code:

```
MINGW64:/d/OS_CM24112/OSLab_CM24112/Practical_3
GNU nano 8.5 filemenu.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
```

```
Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ nano filemenu.sh

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$ chmod +x filemenu.sh
./filemenu.sh
1. Create File
2. Write to File
3. Append to File
4. Delete File
Enter choice:
4
Enter filename:
menu.sh

Shars@Shars-PC MINGW64 /d/OS_CM24112/OSLab_CM24112/Practical_3 (main)
$
```