

Assignment: Create & Manage Files

Problem Statement

Create a directory called student_records. Inside it, create three files:

- stud1.txt
- stud2.txt
- stud3.txt

id, name, marks

Tasks

1. Create directory
2. Create files
3. Insert sample data
4. Display contents of all files
5. Append one more student record to each file

```
MINGW64:/c/Users/shakm/Desktop/student_records
shakm@shayk MINGW64 ~
$ cd desktop

shakm@shayk MINGW64 ~/Desktop
$ mkdir student_records

shakm@shayk MINGW64 ~/Desktop
$ cd student_records

shakm@shayk MINGW64 ~/Desktop/student_records
$ touch stud1.txt stud2.txt stud3.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ 

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "101, Ravi, 85" > stud1.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "102, Anu, 90" > stud2.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "103, Kumar, 78" > stud3.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ cat stud1.txt stud2.txt stud3.txt
101, Ravi, 85
102, Anu, 90
103, Kumar, 78

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "104, Priya, 88" >> stud1.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "105, Arun, 92" >> stud2.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ echo "106, Meena, 81" >> stud3.txt

shakm@shayk MINGW64 ~/Desktop/student_records
$ ...
```

Assignment: Working With Permissions

Problem Statement

Create a file report.txt and change its permissions so that:

- Owner: read + write
- Group: read only
- Others: no permission

Tasks

1. Use chmod symbolic mode
2. Use chmod numeric mode
3. Verify permissions using ls -l

```
shakm@shayk MINGW64 ~/desktop/student_records
$ touch report.txt

shakm@shayk MINGW64 ~/desktop/student_records
$ chmod u=rw,g=r,o= report.txt

shakm@shayk MINGW64 ~/desktop/student_records
$ chmod 640 report.txt

shakm@shayk MINGW64 ~/desktop/student_records
$ ls -l report.txt
-rw-r--r-- 1 shakm 197609 0 Jan 16 23:50 report.txt

shakm@shayk MINGW64 ~/desktop/student_records
$ |
```

Assignment: Shell Script – Simple Calculator

Problem Statement

Write a shell script calc.sh that:

- Accepts two numbers and an operator (+, -, *, /)
- Performs the requested operation
- Displays the result

```
MINGW64:/c/Users/shakm/desktop/student_records
GNU nano 8.3
#!/bin/bash

echo "Enter first number:"
read a

echo "Enter operator (+ - * /):"
read op

echo "Enter second number:"
read b

case $op in
  +) result=$((a + b)) ;;
  -) result=$((a - b)) ;;
  \*) result=$((a * b)) ;;
  /) result=$((a / b)) ;;
  *) echo "Invalid operator"
     exit 1 ;;
esac

echo "Result = $result"
```

```
shakm@shayk MINGW64 ~/desktop/student_records
$ nano calc.sh

shakm@shayk MINGW64 ~/desktop/student_records
$ chmod +x calc.sh

shakm@shayk MINGW64 ~/desktop/student_records
$ ./calc.sh
Enter first number:
10
Enter operator (+ - * /):
+
Enter second number:
30
Result = 40

shakm@shayk MINGW64 ~/desktop/student_records
$ |
```