Ganpat University
(2CSE204) Basics of Operating System and Shell Scripting

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Sem – 2

Branch: CS

Class: B

Batch: 25

Practical-14

1. Set Write a script to make following file and directory management operations menu based:
   RollNumber,StudentName,LA,BOSS,BCS
   1. List all the details of all students.
   2. Add a new student with following details:
      RollNumber: last 4 digits of your roll number
      StudentName: yourname
      LA: Marks in LA subject
      BOSS: Marks in BOSS subject
      BCS: Marks in BCS subject
   3. Update all 70 marks to a new value 81.

┌──(jaimin㉿kali)-[~/BOSS]
└─$ cat practical_14.sh

```bash
db_file="marks_database.txt"

list_students() {
    echo "RollNumber | StudentName | LA | BOSS | BCS"
    echo "---------------------------------------"
    cat "$db_file"
    echo "---------------------------------------"
}

add_student() {
    echo "Enter RollNumber (last 4 digits of your roll number): "
    read roll_number
    echo "Enter StudentName: "
    read student_name
```

```bash
    echo "Enter LA Marks: "
    read la_marks
    echo "Enter BOSS Marks: "
    read boss_marks
    echo "Enter BCS Marks: "
    read bcs_marks

    echo "$roll_number | $student_name | $la_marks | $boss_marks | $bcs_marks" >> "$db_file"
    echo "Student added successfully!"
}


update_marks() {
    echo "Enter the marks to replace: "
    read old_marks
    echo "Enter the new value for marks: "
    read new_marks

    sed -i "s/$old_marks/$new_marks/g" "$db_file"
    echo "Marks updated successfully"
}


while true; do
    echo "1. List all students"
    echo "2. Add a new student"
    echo "3. Update marks to a new value"
    echo "4. Exit"
    read -p "Select an option: " choice

    case $choice in
        1) list_students;;
        2) add_student;;
        3) update_marks;;
        4) break;;
        *) echo "Invalid option";;
    esac
done
```

Output –

```
┌──(jaimin㉿Jaimin)-[~/boss]
└─$ ./script.sh
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: 1
RollNumber | StudentName | LA | BOSS | BCS
----------------------------------------
101 | Jaimin | 75 | 80 | 85
102 | Harsh | 45 | 75 | 80
103 | Saurin | 80 | 85 | 90
104 | Sreshtha | 85 | 90 | 00
105 | Manan | 45 | 75 | 80
133 | Tirth | 34 | 56 | 78
----------------------------------------
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: █
```

```
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: 2
Enter RollNumber (last 4 digits of your roll number):
494
Enter StudentName:
yash
Enter LA Marks:
78
Enter BOSS Marks:
900
Enter BCS Marks:
67
Student added successfully!
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: 1
RollNumber | StudentName | LA | BOSS | BCS
----------------------------------------
101 | Jaimin | 75 | 80 | 85
102 | Harsh | 45 | 75 | 80
103 | Saurin | 80 | 85 | 90
104 | Sreshtha | 85 | 90 | 00
105 | Manan | 45 | 75 | 80
133 | Tirth | 34 | 56 | 78
494 | yash | 78 | 900 | 67
----------------------------------------
```

```
494 | yash | 78 | 900 | 67
----------------------------------------
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: 3
Enter the marks to replace:
900
Enter the new value for marks:
67
Marks updated successfully
1. List all students
2. Add a new student
3. Update marks to a new value
4. Exit
Select an option: 1
RollNumber | StudentName | LA | BOSS | BCS
----------------------------------------
101 | Jaimin | 75 | 80 | 85
102 | Harsh | 45 | 75 | 80
103 | Saurin | 80 | 85 | 90
104 | Sreshtha | 85 | 90 | 00
105 | Manan | 45 | 75 | 80
133 | Tirth | 34 | 56 | 78
494 | yash | 78 | 67 | 67
----------------------------------------
```