

## Practical – I

```
import pickle
def Write_record(sroll, sname,sperc,sremark):
    with open('Student_record.dat','ab') as FILE:
        Stud_rec={'std_roll':sroll,'std_name':sname, 'std_perc':sperc,'std_rmk':sremark}
        pickle.dump(Stud_rec,FILE)

def Read_records():
    with open('Student_record.dat','rb') as FILE:
        print('-----')
        print('Students Details .....')
        print('\nRoll no\tName\t\tPercentage\tRemarks')
        print('-----')
        while True:
            try:
                REC=pickle.load(FILE)
                print(REC['std_roll'],'\t',REC['std_name'],'\t',REC['std_perc'],'\t\t',
                    REC['std_rmk'])
                print('-----')
            except EOFError:
                break

def Input_records():
    N= int(input("How many records you want to create:\t"))
    for ctr in range(N):

        srollno= int(input("Enter Roll no:\t"))
        sname=input("Enter Name:\t")
        sperc=float(input("Enter Percentage:\t"))
        sremks=input("Enter Remarks:")
        Write_record(srollno,sname,sperc,sremks)

def Search_record(roll):
    with open('Student_record.dat','rb') as FILE:
        while True:
            try:
                REC=pickle.load(FILE)
                if REC['std_roll'] == roll:
                    print('-----')
                    print('\nRoll no\tName\t\tPercentage\tRemarks')
                    print('-----')
                    print(REC['std_roll'],'\t',REC['std_name'],'\t',REC['std_perc'],
                        '\t\t',REC['std_rmk'])
            except EOFError:
                break
```

```

def Delete_record(roll):
    with open('Student_record.dat','rb') as FILE:
        NEWREC=[]
        while True:
            try:
                REC = pickle.load(FILE)
                NEWREC.append(REC)
            except EOFError:
                break
    with open('Student_record.dat','wb') as FILE:
        for i in NEWREC:

            if i['std_roll'] == roll:
                continue
            pickle.dump(i, FILE)

def main():
    while True:
        print("----- Main Menu -----")
        print('1. Insert Records')
        print('2. Display Records')
        print('3. Search records (By roll No)')
        print('4. Delete records')
        print('0. Exit (Enter 0 to exit)')
        ch= int (input('Enter your choice:'))
        if ch == 1:
            Input_records()
        elif ch == 2:
            Read_records()
        elif ch == 3:
            r = int(input('Enter rollno to be searched for;\t'))
            Search_record(r)
        elif ch == 4:
            r = int(input("Enter Rollno to be delete:\t"))
            Delete_record(r)
        else:
            break
# ===== MAIN =====

main()

```

### Output:

```
IDLE Shell 3.9.2
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:1
How many records you want to create: 4
Enter Roll no: 1
Enter Name: RAGHAV
Enter Percentage: 93
Enter Remarks:EXCELLENT
Enter Roll no: 2
Enter Name: PRATEEK
Enter Percentage: 90
Enter Remarks:VERY GOOD
Enter Roll no: 3
Enter Name: SONAM
Enter Percentage: 79
Enter Remarks:GOOD
Enter Roll no: 4
Enter Name: PRAKASH
Enter Percentage: 70
Enter Remarks:AVERAGE
Ln: 95 Col: 4
```

```
IDLE Shell 3.9.2
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:2
-----
Students Details .....
Roll no Name Percentage Remarks
-----
1 RAGHAV 93.0 EXCELLENT
-----
2 PRATEEK 90.0 VERY GOOD
-----
3 SONAM 79.0 GOOD
-----
4 PRAKASH 70.0 AVERAGE
-----
Ln: 95 Col: 4
```

```
IDLE Shell 3.9.2
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:3
Enter rollno to be searched for;      4
-----

Roll no Name    Percentage    Remarks
-----
4      PRAKASH      70.0      AVERAGE
-----
Ln: 95 Col: 4
```

```
IDLE Shell 3.9.2
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:4
Enter Rollno to be delete:      4
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:2
-----
Students Details .....
Roll no Name    Percentage    Remarks
-----
1      RAGHAV      93.0      EXCELLENT
-----
2      PRATEEK      90.0      VERY GOOD
-----
3      SONAM      79.0      GOOD
-----
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:0
>>>
Ln: 98 Col: 4
```