

```

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

```

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def Modify(roll,nm,per,rmks):
    with open('Students_record.dat','rb') as FILE:
        NEWREC=[]
        while True:
            try:
                REC=pickle.load(FILE)
                NEWREC.append(REC)
            except EOFError:
                break

    for i in range(len(NEWREC)):
        if NEWREC[i]['std_roll'] ==roll:
            NEWREC[i]['std_name']=nm
            NEWREC[i]['std_perc']=per
            NEWREC[i]['std_remarks']=rmks

    with open('Students_record.dat','wb') as FILE:
        for a in NEWREC:
            pickle.dump(a, FILE)

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_sroll'] == 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 Update records')
        print('5. Delete records')
        print('0. Exit (Enter 0 to exit)')
        ch= int (input('Enter your choice:'))
        if ch == 1:
            Input_records()

```

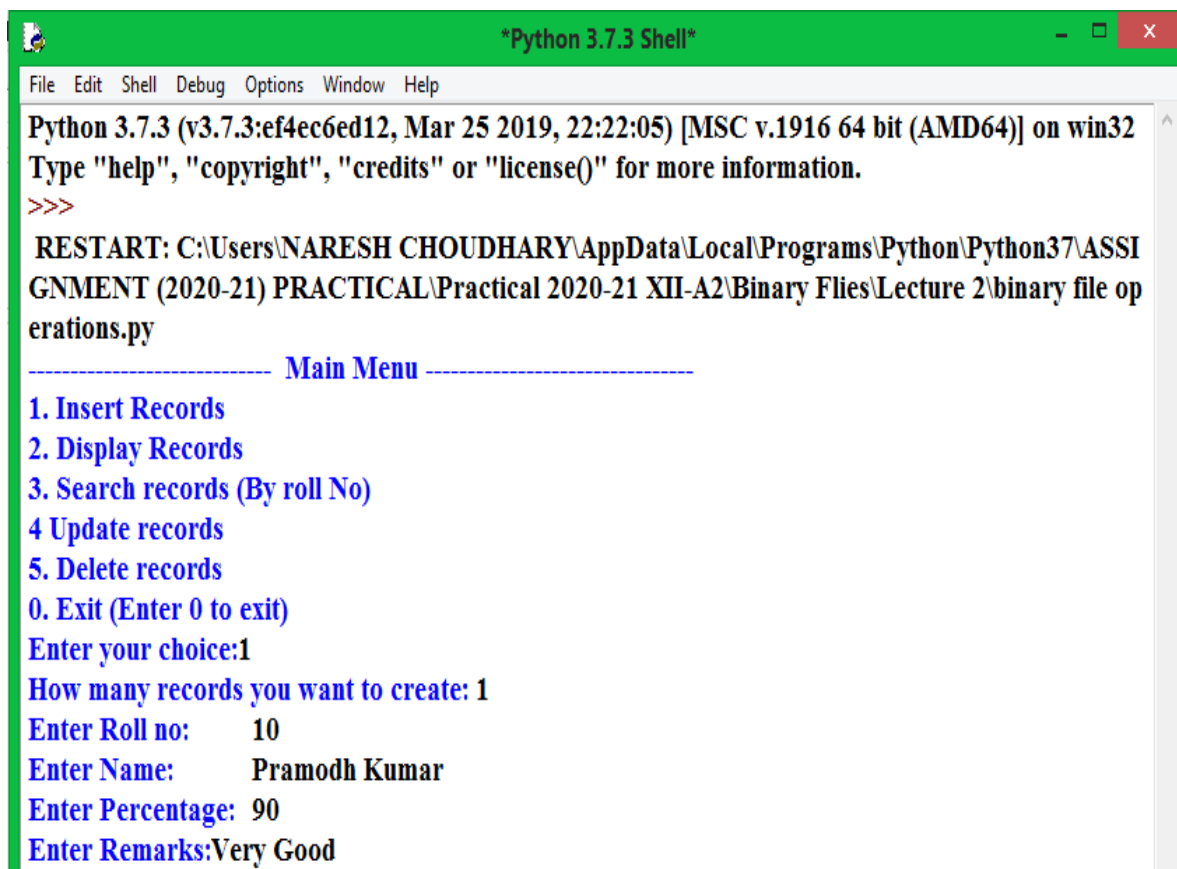
```

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 record no to be update:\t'))
    name=input("Enter name to be update:\t")
    perc=float(input('Enter percentage to be update:'))
    remark=input('Enter remarks to be update:\t')
    Modify(r,name,perc,remark)
elif ch == 5:
    r = int(input("Enter Rollno to be delete:\t"))
    Delete_record(r)
else:
    break
# ===== MAIN =====

main()

```

Output:



```

Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:\Users\NARESH CHOUDHARY\AppData\Local\Programs\Python\Python37\ASSIGNMENT (2020-21) PRACTICAL\Practical 2020-21 XII-A2\Binary Files\Lecture 2\binary file operations.py
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:1
How many records you want to create: 1
Enter Roll no: 10
Enter Name: Pramodh Kumar
Enter Percentage: 90
Enter Remarks:Very Good

```

```
*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:2
-----
Students Details .....

Roll no   Name           Percentage   Remarks
-----
1         Manish Kumar    90.0        VERY GOOD
-----
20        Rohan Yadav     92.0        Excellent
-----
31        Sudhir Kumar    70.0        Good
-----
18        Rahul Singh     94.0        Excellent
-----
10        Pramodh Kumar   90.0        Very Good
-----
----- Main Menu -----
Ln: 46 Col: 0
```

```
*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:3
Enter rollno to be searched for;    18
-----

Roll no   Name           Percentage   Remarks
-----
18        Rahul Singh     94.0        Excellent
-----
----- Main Menu -----
Ln: 62 Col: 18
```

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*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:\Users\NARESH CHOUDHARY\AppData\Local\Programs\Python\Python37\ASSIGNMENT
(2020-21) PRACTICAL\Practical 2020-21 XII-A2\Binary Flies\Lecture 2\binary file operations.py
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:4
Enter record no to be update:      10
Enter name to be update:    Pramodh Kumar
Enter percentage to be update:75
Enter remarks to be update: Good
```

```
*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:2
-----
Students Details .....
Roll no  Name          Percentage  Remarks
-----
1      Manish Kumar      90.0      VERY GOOD
-----
20     Rohan Yadav       92.0      Excellent
-----
31     Sudhir Kumar      70.0      Good
-----
18     Rahul Singh       94.0      Excellent
-----
10     Pramodh Kumar     75.0      Very Good
-----
Ln: 47 Col: 18
```

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*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
>>>
RESTART: C:\Users\NARESH CHOUDHARY\AppData\Local\Programs\Python\Python37\ASSIGNM
ENT (2020-21) PRACTICAL\Practical 2020-21 XII-A2\Binary Flies\Lecture 2\binary file operations.py
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:5
Enter Rollno to be delete: 10
Ln: 37 Col: 0
```

```
*Python 3.7.3 Shell*
File Edit Shell Debug Options Window Help
----- Main Menu -----
1. Insert Records
2. Display Records
3. Search records (By roll No)
4 Update records
5. Delete records
0. Exit (Enter 0 to exit)
Enter your choice:2
-----
Students Details .....
Roll no  Name          Percentage  Remarks
-----
1      Manish Kumar    90.0      VERY GOOD
-----
20     Rohan Yadav     92.0      Excellent
-----
31     Sudhir Yadav    70.0      Good
-----
18     Rahul Singh     94.0      Excellent
-----
Ln: 42 Col: 18
```