# Experiment6: Write a program to create a list of student's records and search a student record using a dictionary.

## CODE:

```python
class Student:
    def GetStudent(self):
        self.rollno=input("Enter roll number:")
        self.name=input("Enter name:")
        self.physicsMarks=int(input("Enter Physics Marks:"))
        self.chemistryMarks=int(input("Enter Chemistry Marks:"))
        self.mathsMarks=int(input("Enter Maths Marks:"))
        return(self.rollno)

    def PutStudent(self):

print(self.rollno,self.name,((self.physicsMarks+self.chemistryMarks+self.mathsMarks)/3))

    def Search(self,min,max):
        per=(self.physicsMarks+self.chemistryMarks+self.mathsMarks)/3
        if(per>=min and per<=max):
            return True
        else:
            return False
```

```python
studentDict=dict()
n=int(input("How many students you want to input:"))
for i in range(n):
    S=Student()
    rollno=S.GetStudent()
    studentDict.setdefault(rollno,S)


#SEARCHING FOR STUDENT RECORDS WITH ROLL NUMBERS PEOVIDED BY THE USER
rollno=input("enter the roll number you want to search?:")
S=studentDict.get(rollno,"Not Found!")
if(isinstance(S,Student)):
    S.PutStudent()
else:
    print(S)


#PRINTNG RECORDS OF ALL USERS WITH MARKS GREATER THAN 60%
print("All students who scored more than 60% are:")
min=int(input('Enter avg min value'))
max=int(input('Enter avg max value'))
gradeAStudent=list(filter(lambda s:s.Search(min,max),studentDict.values()))
if(len(gradeAStudent)==0):
```

```
        print("Record Not Found!")
else:
    for S in gradeAStudent:
        S.PutStudent()
```

## OUTPUT:

```
How many students you want to input:3
Enter roll number:100
Enter name:ABC
Enter Physics Marks:67
Enter Chemistry Marks:78
Enter Maths Marks:60
Enter roll number:101
Enter name:PQR
Enter Physics Marks:76
Enter Chemistry Marks:87
Enter Maths Marks:66
Enter roll number:102
Enter name:XYZ
Enter Physics Marks:78
Enter Chemistry Marks:87
Enter Maths Marks:88
enter the roll number you want to search?:102
102 XYZ 84.33333333333333
All students who scored more than 60% are:
Enter avg min value:70
Enter avg max value:90
101 PQR 76.33333333333333
102 XYZ 84.33333333333333
```