

EXPERIMENT N0-5

AIM: Define a base class called Student with data members roll number, name, marks of three subjects and method get() to get the student details. Define other base class called Sports with method getsm() to read the sports mark. Create a new class derived from Student and Sports and define the method display () to find out the total and average of marks. Raise a user defined exception if total marks are less than 50.

CODE:

```
class student :
```

```
    def getdetails(self,rname,rno,m1,m2,m3):
```

```
        student.rname=rname
```

```
        student.rno=rno
```

```
        student.m1=m1
```

```
        student.m2 = m2
```

```
        student.m3 = m3
```

```
class sports:
```

```
    def getsm(self,smarks):
```

```
        sports.smarks=smarks
```

```
class derived(student,sports):
```

```
    def marks(self):
```

```
        sums2=self.m1+self.m2+self.m3+self.smarks
```

```
        avg=sums2/4
```

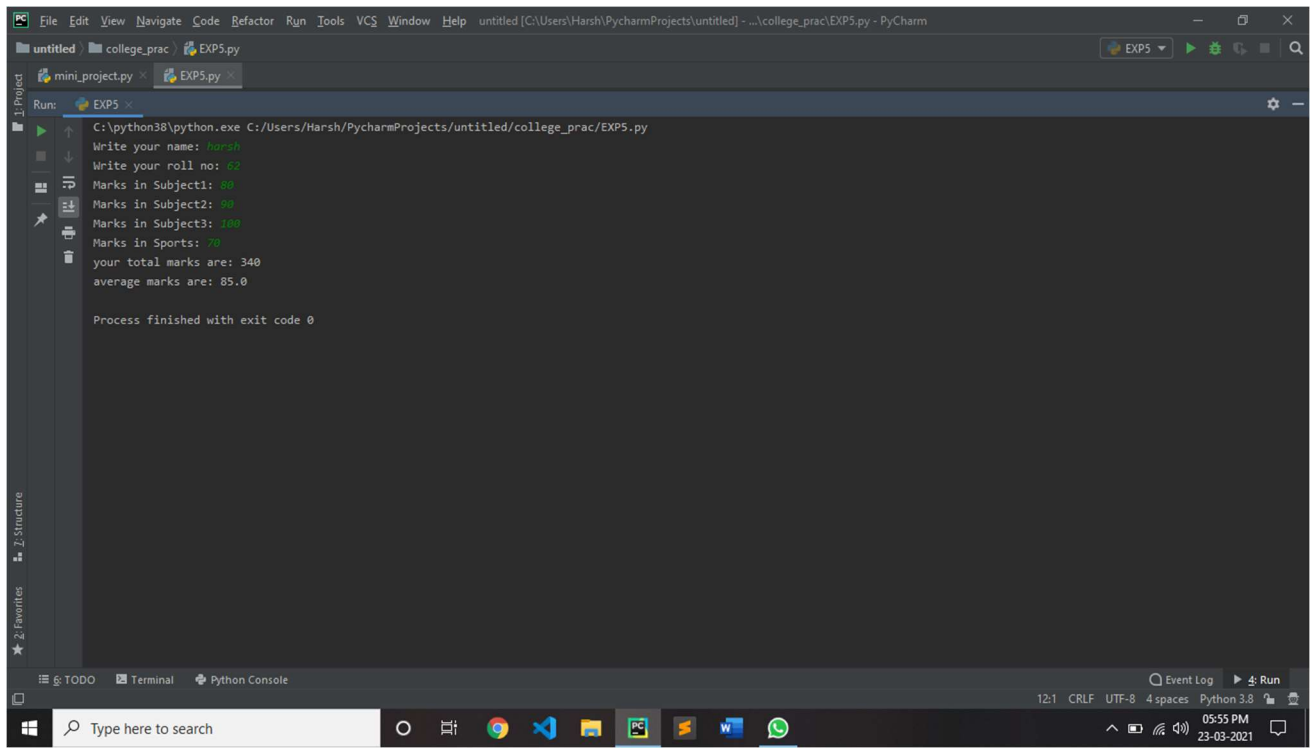
```
        try:
```

```
            if (sums2 < 50):
```

```
        raise ValueError
    else:
        print(f'your total marks are: {sums2} \naverage marks are: {avg}')
except ValueError:
    print("your total marks are less than 50")

if __name__ == '__main__':
    s1=derived()
    name = input("Write your name: ")
    roll_no = int(input("Write your roll no: "))
    m1 = int(input("Marks in Subject1: "))
    m2 = int(input("Marks in Subject2: "))
    m3 = int(input("Marks in Subject3: "))
    sm = int(input("Marks in Sports: "))
    s1.getdetails(name,roll_no,m1,m2,m3)
    s1.getsm(sm)
    s1.marks()
```

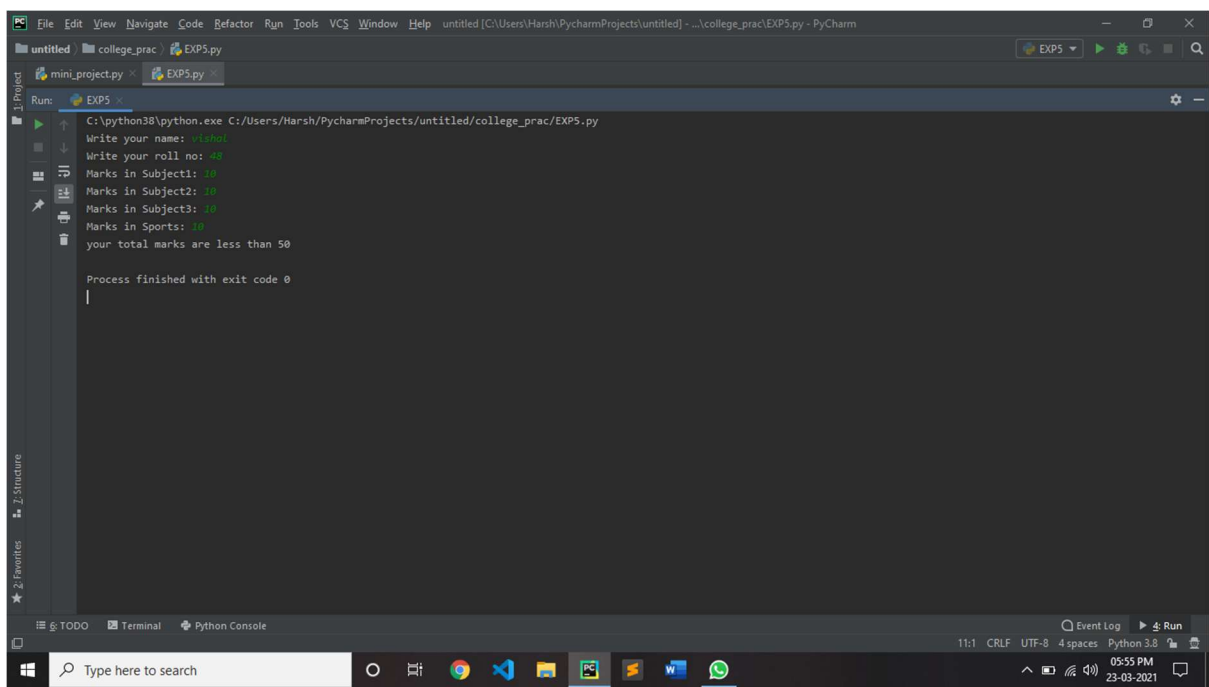
OUTPUT:



The screenshot shows the PyCharm Run window for a Python script. The output is as follows:

```
C:\python38\python.exe C:/Users/Harsh/PycharmProjects/untitled/college_prac/EXP5.py
Write your name: harsh
Write your roll no: 62
Marks in Subject1: 80
Marks in Subject2: 90
Marks in Subject3: 100
Marks in Sports: 70
your total marks are: 340
average marks are: 85.0

Process finished with exit code 0
```



The screenshot shows the PyCharm Run window for the same Python script with different input values. The output is as follows:

```
C:\python38\python.exe C:/Users/Harsh/PycharmProjects/untitled/college_prac/EXP5.py
Write your name: ishal
Write your roll no: 48
Marks in Subject1: 10
Marks in Subject2: 10
Marks in Subject3: 10
Marks in Sports: 10
your total marks are less than 50

Process finished with exit code 0
```