

# Project Report

*Title: To find the rank of the students before and after the updating marks.*

BACHELOR OF TECHNOLOGY:

Computer science and Engineering

Submitted to: Mr. Salil Batra

LOVELY PROFESSIONAL UNIVERSITY, PHAGWARA, PUNJAB



**L**OVELY  
**P**ROFESSIONAL  
**U**NIVERSITY

---

*Transforming Education Transforming India*

Submitted by:

Name: Tushar Bhardwaj

Reg. No. 12216999

Section: KOC36

Roll no. 68

## **Introduction To Project :-**

In this project, we have defined a function highrank and taken input of 3 lists i.e. first list of names of the students, second list of marks obtained by the students and third list of updation in marks if any. Then compiler will compute and show the output of the names of the students according to the rank achieved by them with respect to their marks before updating and after updating compiler will compute and show the name of the student who got highest marks and his/her marks. Compiler is also made to compute the Jump of the rank made by the student who got highest marks (i.e., Rank before Updating- Rank after Updating). Additionally, our function is made in such a way that it will compute the rank , Jump of ranks and Final Marks of other students also.

# Project Code :-

```
def highrank(names,marks,updates):  
    Rank1=[]  
    Rank2=[]  
    d=len(names)  
    list2=sorted(marks)  
    list3=list2[::-1]  
    print("Before Updates, Ranks are:-")  
    for i in range(0,d):  
        for j in range(0,d):  
            if list3[i]==marks[j]:  
                print("Rank:",(i+1),"---->",names[j])  
            if marks[i]==list3[j]:  
                Rank1.append(j+1)  
    newlist=[]  
    for i in range(0,d):  
        newlist.append(marks[i]+updates[i])  
    list1=sorted(newlist)  
    list5=list1[::-1]
```

```

for i in range(0,d):
    for j in range(0,d):
        if newlist[i]==list5[j]:
            Rank2.append(j+1)
print("After Updates:")
print("Student with Highest marks is:")
for i in range(0,d):
    if list5[0]==newlist[i]:
        print("Rank:", "1", "---->", names[i], "[Final
Marks:", list5[0], "]", " ", "@", "Jump of Rank", Rank1[i]-Rank2[i])

print("Additionaly Rank of other students:")
for p in range(1,d):
    for q in range(0,d):
        if list5[p]==newlist[q]:
            print("Rank:", (p+1), "---->", names[q], "[Final
Marks:", list5[p], "]", " ", "@", "Jump of Rank", Rank1[q]-Rank2[q])
a=input("Please Enter the list of Student's Names")
names=a.split(",")

b=input("Please Enter the list of marks obtained by students")

```

```
marks=b.split(",")
```

```
c=input("Please Enter the list of Updation of numbers")
```

```
updates=c.split(",")
```

```
d=len(names)
```

```
e=len(marks)
```

```
f=len(updates)
```

```
if d==e and d==f:
```

```
    for i in range(0,e):
```

```
        marks[i]=float(marks[i])
```

```
    for i in range(0,f):
```

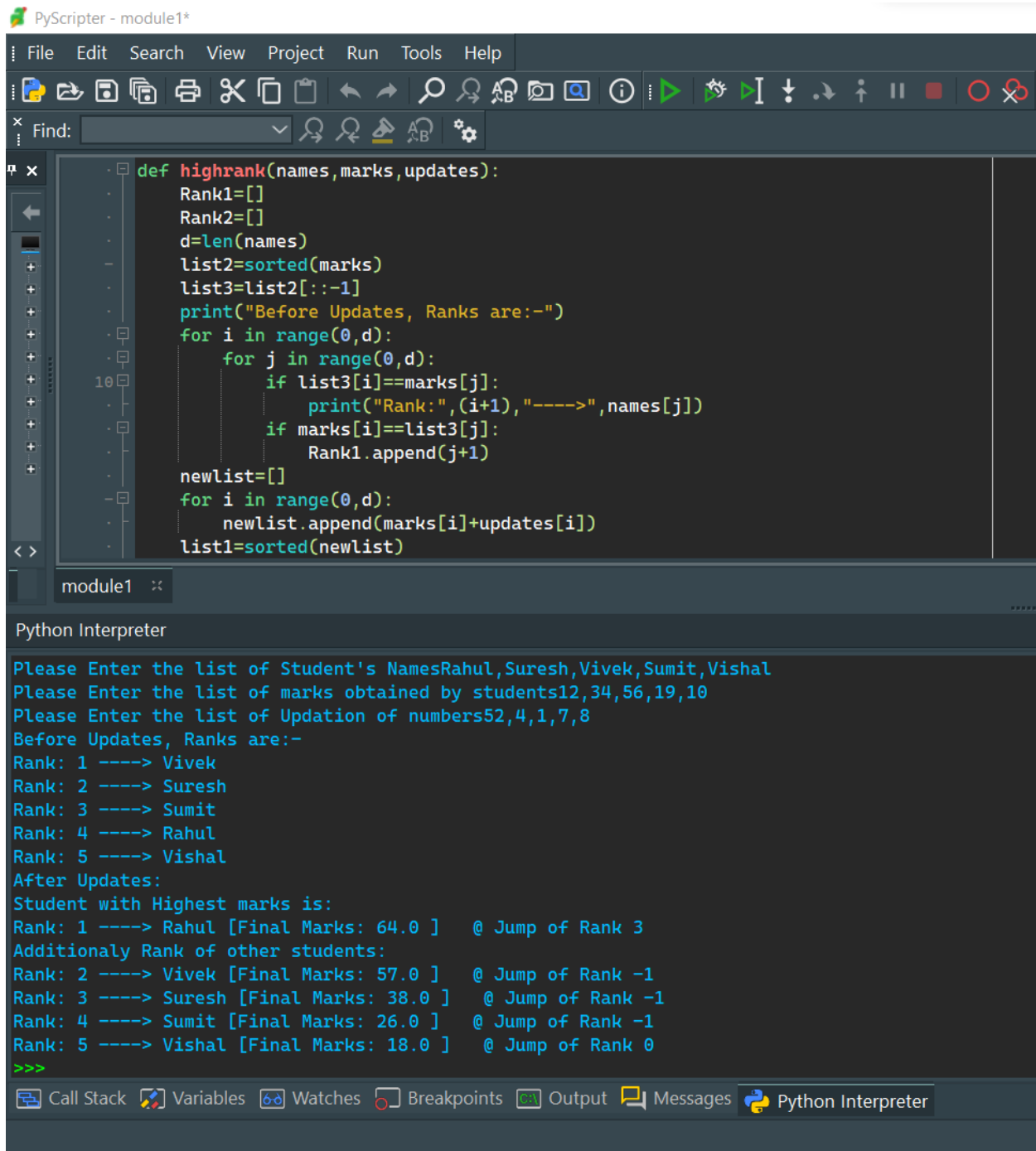
```
        updates[i]=float(updates[i])
```

```
    highrank(names,marks,updates)
```

```
else:
```

```
    print("Sorry, Lists are of different lengths")
```

# Output Screenshots :-



The screenshot displays the PyScripter IDE interface. The top section shows the code editor with a Python function `highrank` that calculates student ranks based on marks and updates. The bottom section shows the Python Interpreter output, which includes user input for names, marks, and updates, followed by the program's execution results.

```
def highrank(names,marks,updates):  
    Rank1=[]  
    Rank2=[]  
    d=len(names)  
    list2=sorted(marks)  
    list3=list2[::-1]  
    print("Before Updates, Ranks are:-")  
    for i in range(0,d):  
        for j in range(0,d):  
            if list3[i]==marks[j]:  
                print("Rank:",(i+1),"---->",names[j])  
            if marks[i]==list3[j]:  
                Rank1.append(j+1)  
    newList=[]  
    for i in range(0,d):  
        newList.append(marks[i]+updates[i])  
    list1=sorted(newList)
```

Python Interpreter

Please Enter the list of Student's NamesRahul,Suresh,Vivek,Sumit,Vishal  
Please Enter the list of marks obtained by students12,34,56,19,10  
Please Enter the list of Updation of numbers52,4,1,7,8  
Before Updates, Ranks are:-  
Rank: 1 ----> Vivek  
Rank: 2 ----> Suresh  
Rank: 3 ----> Sumit  
Rank: 4 ----> Rahul  
Rank: 5 ----> Vishal  
After Updates:  
Student with Highest marks is:  
Rank: 1 ----> Rahul [Final Marks: 64.0 ] @ Jump of Rank 3  
Additionally Rank of other students:  
Rank: 2 ----> Vivek [Final Marks: 57.0 ] @ Jump of Rank -1  
Rank: 3 ----> Suresh [Final Marks: 38.0 ] @ Jump of Rank -1  
Rank: 4 ----> Sumit [Final Marks: 26.0 ] @ Jump of Rank -1  
Rank: 5 ----> Vishal [Final Marks: 18.0 ] @ Jump of Rank 0  
>>>

PyScripter - module1\*

File Edit Search View Project Run Tools Help

Find:

```
20 for j in range(0,d):
    if newList[i]==list5[j]:
        Rank2.append(j+1)
    print("After Updates:")
    print("Student with Highest marks is:")
    for i in range(0,d):
        if list5[0]==newList[i]:
            print("Rank:", "1", "---->", names[i], "[Final Marks:", list5[0], "]", " ", "@", "Jump of Rank", Rank1[i]-Rank2[i])
    print("Additionally Rank of other students:")
    for p in range(1,d):
        for q in range(0,d):
            if list5[p]==newList[q]:
                print("Rank:", (p+1), "---->", names[q], "[Final Marks:", list5[p], "]", " ", "@", "Jump of Rank", Rank1[q]-Rank2[q])
    a=input("Please Enter the list of Student's Names")
    names=a.split(",")
    b=input("Please Enter the list of marks obtained by students")
    marks=b.split(",")
```

module1

Python Interpreter

```
*** Remote Interpreter Reinitialized ***
Please Enter the list of Student's Names Namit,Ayush,Tushar
Please Enter the list of marks obtained by students 22,28,21
Please Enter the list of Updation of numbers 3,-4,6
Before Updates, Ranks are:-
Rank: 1 ----> Ayush
Rank: 2 ----> Namit
Rank: 3 ----> Tushar
After Updates:
Student with Highest marks is:
Rank: 1 ----> Tushar [Final Marks: 27.0 ] @ Jump of Rank 2
Additionally Rank of other students:
Rank: 2 ----> Namit [Final Marks: 25.0 ] @ Jump of Rank 0
Rank: 3 ----> Ayush [Final Marks: 24.0 ] @ Jump of Rank -2
>>>
```

Call Stack Variables Watches Breakpoints Output Messages Python Interpreter

Ready Python 3.10 (64-bit)

PyScripter - module1\*

File Edit Search View Project Run Tools Help

Find:

```

def highrank(names,marks,updates):
    Rank1=[]
    Rank2=[]
    d=len(names)
    list2=sorted(marks)
    list3=list2[::-1]
    print("Before Updates, Ranks are:-")
    for i in range(0,d):
        for j in range(0,d):
            if list3[i]==marks[j]:
                print("Rank:",(i+1),"---->",names[j])
            if marks[i]==list3[j]:
                Rank1.append(j+1)
    newList=[]
    for i in range(0,d):
        newList.append(marks[i]+updates[i])
    list1=sorted(newList)
    list5=list1[::-1]
    for i in range(0,d):
        for j in range(0,d):
            if newList[i]==list5[j]:
                Rank2.append(j+1)
    print("After Updates:")
    print("Student with Highest marks is:")
    for i in range(0,d):
        if list5[0]==newList[i]:
            print("Rank:", "1", "---->", names[i], "[Final Marks:", list5[0], "]", " ", "@", "Jump of Rank", Rank1[i]-Rank2[i])

```

module1

Python Interpreter

```

>>>
*** Remote Interpreter Reinitialized ***
Please Enter the list of Student's NamesTushar,Namit,Ayush
Please Enter the list of marks obtained by students32,46,21,45
Please Enter the list of Updation of numbers2,5,3
Sorry, Lists are of different lengths
>>>

```

Call Stack Variables Watches Breakpoints Output Messages Python Interpreter

Ready Python 3.10 (64-bit)