

**CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY FACULTY
OF TECHNOLOGY AND ENGINEERING
Chandubhai S. Patel Institute of Technology**

AIM	<p>Consider an example of declaring the examination result. Design three classes: Student, Exam, and Result. The Student class has data members such as those representing rollNumber, Name, etc. Create the class Exam by inheriting Student class. The Exam class adds fields representing the marks scored in six subjects. Derive Result from the Exam class, and it has its own fields such as total_marks. Write an interactive program to model this relationship.</p>
CODE	<pre> ### # Jekeel Shah 20CS080 # Practical 8 # # class Student:#student class def __init__(self, rollNo, name):#define roll number and name when the object of studnt is created self.rollNo = rollNo#initialize roll number self.name = name#initialize name def display(self):#display method of student print(f'Student Roll No: {self.rollNo}')#print roll number of student print(f'Student Name: {self.name}')#print name of student class Exam(Student):#exam class def __init__(self, rollNo, name, subject):#define roll number, name and subject super().__init__(rollNo, name)#initialize roll number and name from student class self.subject = subject#initialize subject def display(self):#display method of exam super().display()#display roll number and name from student class for i in range(len(self.subject)): print(f'Subject {i+1} Marks: {self.subject[i]}')#print marks of subject class Result(Exam):#class result total_marks = 0 def __init__(self, rollNo, name, subject):#define roll number, name , subject </pre>

```
super().__init__(rollNo, name, subject)#initialize roll number, name, subject from exam class
self.total_marks = sum(subject)#do sum of all marks

def display(self):#display method of result method
    super().display()#display roll number, name and subject
    print(f'Total Marks: {self.total_marks}')

if __name__ == '__main__':
    student = Student(1, 'k80')
    student.display()
    print()

    exam = Exam(80, 'Jekeel', [18, 15, 8])
    exam.display()
    #result.display()
    print()

    result = Result(68, 'Pruthvi', [10, 10, 15])
    result.display()
    print()

print('Prepared by Jekeel Shah 20CS080')
print('Thank you! :)')
```

OUTPUT

```
Student Roll No: 1  
Student Name: k80  
  
Student Roll No: 80  
Student Name: Jekeel  
Subject 1 Marks: 18  
Subject 2 Marks: 15  
Subject 3 Marks: 8  
  
Student Roll No: 68  
Student Name: Pruthvi  
Subject 1 Marks: 10  
Subject 2 Marks: 10  
Subject 3 Marks: 15  
Total Marks: 35  
  
Prepared by Jekeel Shah 20CS080  
Thank you! :)  
PS E:\Charusat 2020-24\Sem 4>
```

Github Repository link:

https://github.com/JekeelShah-20CS080/Programming_in_Python.git