AIM: **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.**

CODE:

*# Creating a class Student.*

*class student:*

*Name = 'Suhani'*

*rollNumber = 0*

*# function to set the id & name*

*def details(self, rollNumber, Name):*

*self.Name = Name*

*self.rollNumber = rollNumber*

*# Creating a class exam from class student.*

*class exam(student):*

*marks\_list = []*

*# function marks to set the marks of that student.*

*def marks(self, marks\_list):*

*self.marks\_list = marks\_list*

*return marks\_list*

*# Creating a class result from class exam.*

*class result(exam):*

*marks\_gain = 0*

*# Function to obtain the total of the marks of a student.*

*def result\_of\_student(self, marks\_gain):*

*total\_marks = 0*

*for item in marks\_gain:*

*total\_marks += item*

*return total\_marks*

*# Creating an object of result class.*

*sobj = result()*

*student\_name = input("Enter the name of the student : ")*

*student\_id = input("Enter the Roll Number of the student : ")*

*# Setting the details.*

*sobj.details(student\_id, student\_name)*

*print(f"Enter the marks of {student\_name} in 6 subject : \n")*

*marks = []*

*for i in range(0, 6):*

*marks.append(int(input()))*

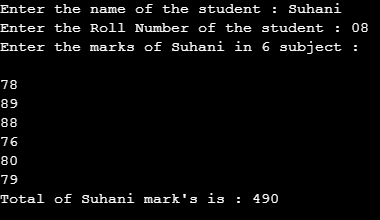
*# Setting the marks.*

*marks\_obtain = sobj.marks(marks)*

*total = sobj.result\_of\_student(marks\_obtain)*

*print(f"Total of {student\_name} mark's is : {total}")*

*OUTPUT:*

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