

Hw Module8

September 17, 2020

Module 8 #Inheritance exercise

You are given two classes, Person and Student, where Person is the base class and Student is the derived class. Completed code for Person and a declaration for Student are provided for you in the editor. Observe that Student inherits all the properties of Person.

Complete the Student class by writing the following: A Student class constructor, which has 4 parameters: - A string, firstName - A string, lastName - An integer, id An integer array (or vector) of test scores, scores

A char calculate() method that calculates a Student object's average and returns the grade character representative of their calculated average: A | 90-100 B | 80-89 C | 70-79 D | 60-69 F | <60

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In [14]: class Person():
        def __init__(self, firstname, lastname):
            self.firstname = firstname
            self.lastname = lastname

        class Student(Person):
            def __init__(self, firstname, lastname, ID, grades):
                self.ID = ID
                self.grades = grades
                super().__init__(firstname,lastname)

            def calculate(self):
                self.grades = list(map(int,self.grades))
                self.avg = sum(self.grades) / len(self.grades)

                if self.avg >= 90:
                    print('A')
                elif self.avg < 90 and self.avg >= 80:
                    print('B')
                elif self.avg >= 70 and self.avg < 80:
                    print('B')
                elif self.avg >= 60 and self.avg < 70:
                    print('B')
                else:
                    print('F')

listOfStudents = []
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cont = "y"
while(cont == "y"):
    listOfStudents.append(Student(input("First name:"), input("Last name:"), input("ID:")))

    cont = input("Add another student?(y/n)")
for i in listOfStudents:
    print(i.firstname+' ' + i.lastname + ' ' + "grade is: ")
    i.calculate()
    #print(str(i))
    #print(dir(i))

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First name:Joansey
Last name:Varughese
ID:3
Scores(ENTER AS A SPACE SEPARATED LIST):94 95 100 100
Add another student?(y/n)n
Joansey Varughese grade is:
A

```