

Name:

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### Question 1 [C01] [10 Points]

Your task is to design the **SchoolFair** class in java such that the following tester code produces the expected output. Please note that:

- Only class 9 and class 10 students are allowed to participate.
  - Events wise, students will form -
    - groups of 4 for "Science Projects", → groups of 2 for "Quiz Show" and
    - for all other events, participation is individual.
  - For simplicity, assume that all registered students will participate in all events.
- So you only need to count the registered students in each class.*

Tester Code	Expected Output
<pre> public class SchoolTester {     public static void main(String[] args) {         SchoolFair sf = new SchoolFair();         sf.schoolName = "XYZ High School";         sf.allDetails();         System.out.println("#####[1]#####");         sf.addStudent("class 10", 100);         sf.addStudent("class 9", 120);         System.out.println("Total groups: " + sf.getGroups("Quiz Show"));         System.out.println("#####[2]#####");         sf.allDetails();         System.out.println("#####[3]#####");         sf.addStudent("class 10", 40);         sf.addStudent("class 7", 80);         System.out.println("Total groups: " + sf.getGroups("Science Project"));         System.out.println("Total groups: " + sf.getGroups("Olympiad"));         System.out.println("#####[4]#####");         sf.allDetails();         System.out.println("#####[5]#####");     } } </pre>	<pre> School name: XYZ High School Students counts: Class 9: 0, Class 10: 0 #####[1]##### 100 students joined class 10 120 students joined class 9 In the Quiz Show, 60 groups are from class 9 50 groups are from class 10 Total groups: 110 #####[2]##### School name: XYZ High School Students counts: Class 9: 120, Class 10: 100 #####[3]##### 40 students joined class 10 Only allowed to add class 9 and 10 students In the Science Project, 30 groups are from class 9 35 groups are from class 10 Total groups: 65 In the Olympiad, 120 groups are from class 9 140 groups are from class 10 Total groups: 260 #####[4]##### School name: XYZ High School Students counts: Class 9: 120, Class 10: 140 #####[5]##### </pre>