package student;

import java.util.Arrays;

public class Student {

private String name;

private int subjectCount;

private String[] subjects;

private int[] grades;

private boolean approvedAllSubjects;

public Student(String name) {

this.name = name;

this.approvedAllSubjects = true;

this.subjectCount = 0;

this.subjects = new String[5];

for(int i=0; i<this.subjects.length; i++) {

this.subjects[i] = "";

}

this.grades = new int[5];

for(int i=0; i<this.grades.length; i++) {

this.grades[i] = -1;

}

}

public String toString() {

return "Name: " + this.name + "\n" +

"Subjects: " + Arrays.*toString*(this.subjects) + "\n" +

"Grades: " + Arrays.*toString*(this.grades) + "\n" +

"Approved all subjects: " + this.approvedAllSubjects;

}

public void setName(String name) {

this.name = name;

}

public void addGrade(int grade, String subject) {

if (this.subjectCount < this.grades.length) {

this.grades[this.subjectCount] = grade;

this.subjects[this.subjectCount] = subject;

this.subjectCount++;

if (grade <70) {

this.approvedAllSubjects = false;

}

}

}

}

Computer Science 2 – Prepa Tec Campus Eugenio Garza Lagüera

Activity 5 – Student Class

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- Student id: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Problem 1. Do a code trace for the program below.

|  |
| --- |
| package student;  public class Demo {  public static void main(String[] args) {  Student s1 = new Student("Roberto");  System.***out***.println(s1);  System.***out***.println("--------");    s1.addGrade(100, "Computer Science");  System.***out***.println(s1);  System.***out***.println("--------");    s1.addGrade(70, "English");  System.***out***.println(s1);  System.***out***.println("--------");    s1.setName("Roberto Carlos");  System.***out***.println(s1);  System.***out***.println("--------");    Student s2 = new Student("Marco");  s2.addGrade(65, "Math");  System.***out***.println(s2);  System.***out***.println("--------");    s2.addGrade(100, "Spanish");  System.***out***.println(s2);  System.***out***.println("--------");  s2.addGrade(80, "History");  System.***out***.println(s2);  System.***out***.println("--------");  }  } |

|  |  |  |
| --- | --- | --- |
| s1 | s2 | Output |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |