**ICE#3**

\*\*10.9 (THE COURSE CLASS)

Modify the **Course** class of ICE#10.6 the modified class is called CourseNew. The modifications are as follows:

1. Modify the **getStudents()** method to return an array whose length is the same as the number of students in the course. (**HINT**: create a new array and copy array **students** to it.)
2. The array size is fixed in **ICE# 10.6.** Modify the **addStudent** method to automatically increase the array size if there is no room to add more students. (**HINT**: This is done by creating a new larger array and copying the contents of the current array to it.)
3. Implement the **dropStudent** method.
4. Add a new method named **clear()** that removes all students from the course.

Test your program using the

Test your program using https://liveexample.pearsoncmg.com/test/Exercise10\_09.txt

public class **TestCourse** {

public static void main(String[] args) {

CourseNew course1 = new CourseNew("Data Structures");

CourseNew course2 = new CourseNew("Database Systems");

course1.addStudent("Peter Jones");

course1.addStudent("Brian Smith");

course1.addStudent("Anne Kennedy");

course1.addStudent("Susan Kennedy");

course1.addStudent("John Kennedy");

course1.addStudent("Kim Johnson");

course1.addStudent("S1");

course1.addStudent("S2");

course1.addStudent("S3");

course1.addStudent("S4");

course1.addStudent("S5");

course1.addStudent("S6");

course1.addStudent("S7");

course2.addStudent("Peter Jones");

course2.addStudent("Steve Smith");

System.out.println("Number of students in course1: "

+ course1.getNumberOfStudents());

String[] students = course1.getStudents();

for (int i = 0; i < students.length; i++)

System.out.print(students[i] + ", ");

System.out.println();

System.out.print("Number of students in course2: "

+ course2.getNumberOfStudents());

course1.dropStudent("S1");

System.out.println("Number of students in course1: "

+ course1.getNumberOfStudents());

students = course1.getStudents();

for (int i = 0; i < course1.getNumberOfStudents(); i++)

System.out.print(students[i] + (i < course1.getNumberOfStudents() - 1 ? ", " : " "));

course1.clear();

System.out.println("\nNumber of students in course1: "

+ course1.getNumberOfStudents());

}

}