CSIT111 - Lab 5
File name: YourName_ClassNo_Lab_5.java

Develop an educational system to teach primary one's students how to do simple arithmetic. You should assume that all the numbers are generated by the system are of single digits. The system displays a complement message when students produce the right answers and displays an encouragement message when students produce the wrong answers.

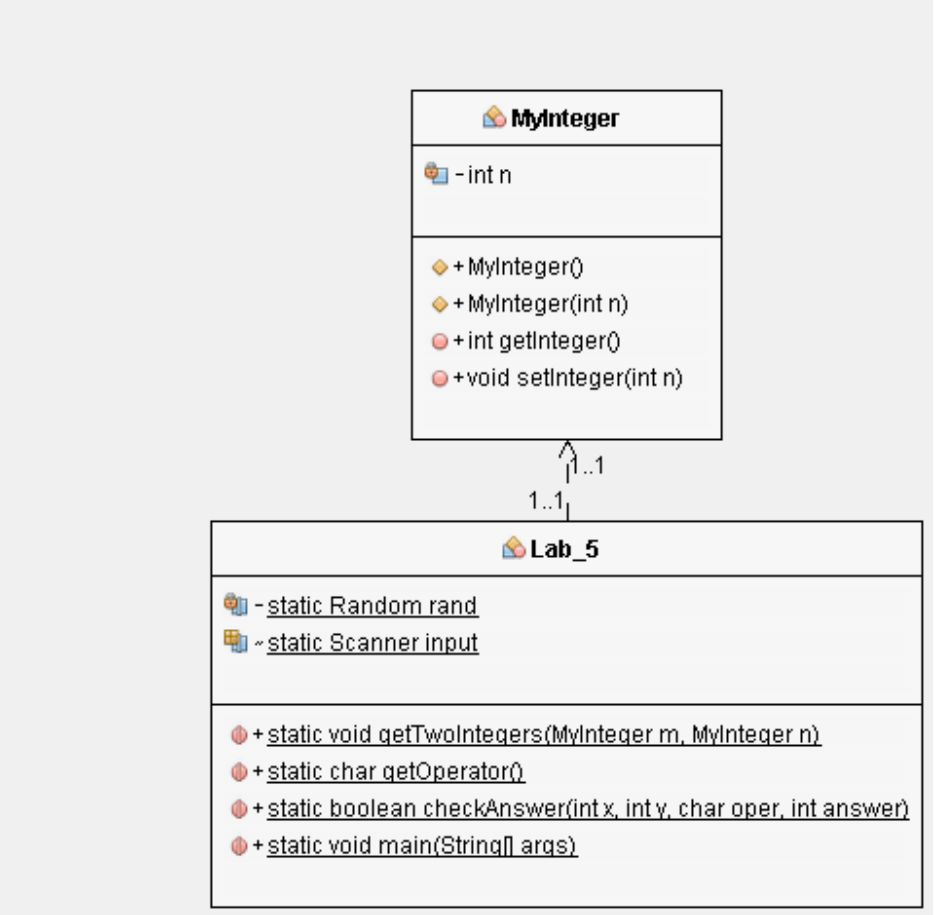
Upon running the program, you will see the following interaction:

```
Welcome to CSIT111 Arithmetic World
You will solve 5 difficult arithmetic

Question 1: 8 - 4 = ?
Your answer: 4
Correct answer

Question 2: 1 + 5 = ?
Your answer: 6
Correct answer

Question 3: 8 + 0 = ?
Your answer: 8
Correct answer

Question 4: 2 - 8 = ?
Your answer: -6
Correct answer

Question 5: 0 * 0 = ?
Your answer: 0
Correct answer

Your score 5 / 5, well done
```

Another interaction:

```
Welcome to CSIT111 Arithmetic World
You will solve 5 difficult arithmetic

Question 1: 9 - 2 = ?
Your answer: 8
Wrong answer

Question 2: 3 - 9 = ?
Your answer: -1
Wrong answer

Question 3: 3 - 1 = ?
Your answer: 2
Correct answer

Question 4: 9 + 0 = ?
Your answer: 9
Correct answer

Question 5: 6 * 2 = ?
Your answer: 11
Wrong answer

Your score 2 / 5, hope you can score full mark next time
```

Now, let us talk about our design. Let us explore the following UML diagram:



(a) Define a class called `MyInteger`. In this class, you only have a private integer attribute. An empty constructor and another constructor that update the integer attribute; also have an accessor and a mutator method.

(b) In the main file, you see a few important methods needed to design

- A method generates and returns two `MyInteger` objects.
- A method generates and returns an arithmetic operator + – or *
- A method to verify if user enters the correct answer

Convenient to your design, feel free to change or add in other method as long as you explore the use of `MyInteger` class.