Due date: Today, at the end of the lab period.

Read this entire document before beginning your lab.

The *Comp248LabManual* is available on the course's Moodle website.

For this lab you are **required to fulfill all requirements exactly as described** in this provided document, no less, no more.

Question: Today you are commissioned to create a Java program that will prompt for and read three integers as three internal angles of a triangle in degrees *angle1*, *angle2* and *angle3* entered by the user, and determine the category of the triangle based on the three angles according to the specifications that follow. Note that one set of user input may belong to more than one category. Be sure to use the same format and wording as in the sample runs in the tables below.

Using a series of compound if statements (no if/else or nested if required or needed) determine which condition(s) the 3 internal angles satisfy.

1. If any of the internal angles is equal to 90, display "*This might be a right triangle!*".
2. If any of the internal angles is greater than 90, display *"This might be an obtuse triangle!".*
3. If all the internal angles are smaller than 90, display *"This might be an acute triangle!"*.
4. If the sum of the three internal angles is not equal to 180, display "*This turns out to be an invalid triangle!*".
5. Finish off with the message "*Finished!".*

The box below illustrates how your program should behave and appear.
REMEMBER in the output: ◦ is a space and ↵ is a new line. Text in **green** is user input

```
Entering◦three◦internal◦angles:◦90◦30◦60↵
↵
This◦might◦be◦a◦right◦triangle!↵
Finished!
```

```
Entering◦three◦internal◦angles:◦91◦90◦90↵
↵
This◦might◦be◦a◦right◦triangle!↵
This◦might◦be◦an◦obtuse◦triangle!↵
This◦turns◦out◦to◦be◦an◦invalid◦triangle!↵
Finished!
```

```
Entering◦three◦internal◦angles:◦40◦60◦80↵
↵
This◦might◦be◦an◦acute◦triangle!↵
Finished!
```

Note 1: You are to expect a perfect user who will always input three positive integers; that is, **do not** verify the validity of user input.

Note 2: All calculations, inputs and outputs should be in integer format and the use of libraries other than *java.util.Scanner* is prohibited. Your program must work for any double values entered, not just the ones in the samples above.

Note 3: Final thought, remember that your solution is case-sensitive and space-sensitive, fulfill the above instructions carefully and precisely.

Reminder:

When submitting your solution to the lab system, make sure that if you have a `package` statement at the top of your `.java` file it is commented out (has // in front of it) as failing to do so will result in a grade of 0 (restriction of the DOMJudge system).