LAB 5,

JAVA – MORE CONDITIONALS JAVA FUNDAMENTALS

# Exercise 5, Java – More conditionals

## Objective

In this exercise you'll practice using the logical AND (&&) and OR (||) in an if statement.

### Step by step.

1. Back in the **labs** project which you created in **Lab1**, add a new package called lab05.

Please refer to lab1's instructions if you need help.

1. Create a new class called *Program* in Lab05 package with a main() method.
2. Add a class called Lab5 to this package (with no main method)
3. Transfer the code for **getInt()** which you wrote in the previous lab to the Lab5 class.
4. Create a method in Lab5 called grades as:

**public** **void** grades() {

}

1. Create an instance of Lab5 in main() and call grades() to get ready for the rest of this exercise.

**Lab5** lab5 **=** **new** **Lab5**();  
lab5.grades();

1. From now all your code will go in the grades() method.
2. Use the getInt() method to input an exam mark.
3. The rules for calculating a grade is as follows:  
     
   If the mark is less than 1 or greater than 100, display:   
   *"Error: marks must be between 1..100"*  
     
   Less than **50** **Fail**  
   between **50..60** (inclusive) **Pass**  
   between **61..70** (inclusive) **Merit**  
   between **71..100** (inclusive) **Distinction**

## Part 2 – Evening Behaviors (Optional)

In this part you'll display different recommendation depending on if it is Summer time and/or early evening

1. Create another method method called **Part2().**

**public** **void** **Part2**() {

}

1. In the Part2() method, ask the user if it is Summer time. If they answer "yes" then set a Boolean variable to true.

**Tip:** use the getString() method to get a String.

1. You will then ask the user to indicate if it is early evening and record this fact in another Boolean variable.

**Tip**: create a bool variable that takes the value of **true** if the user says "**yes**" and will be **false** otherwise.

1. Using **if, else** statement/s. produce the following logic table in code to produce the output indicated.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Season:** Summer Time | **True** | **True** | **False** | **False** |
| **Condition:** Sunny Evening | **True** | **False** | **True** | **False** |
| Action: Take a shower | **✓** | **✓** | **✓** | **✓** |
| Action: Eat outside | **✓** |  |  |  |
| Action: Eat inside |  | **✓** | **✓** | **✓** |
| Action: Do outdoors hobby | **✓** | **✓** |  |  |
| Action: Take a walk |  |  | **✓** |  |
| Action: Contact friends | **✓** | **✓** | **✓** | **✓** |

\*\* End \*\*