IST 209 Assignment #2

15 November 2007

Mass and Weight (revised)

You must upload the Java source file through the class' web server at siu.globaleyes.com prior to the beginning of the class on 15 Nov.

> In a previous in-class assignment, you developed a Java application to solve the following problem:
>
> Scientists measure an object's mass in kilograms and its weight in Newtons. If you know the amount of mass that an object has, you can calculate its weight, in Newtons, with the following formula:
>
> $$Weight = mass * 9.8$$
>
> Write a program that asks the user to enter an object's mass, and then calculate its weight. If the object weighs more than 1000 Newtons, display a message indicating that it is too heavy. If the object weighs less than 10 Newtons, display a message indicating the object is too light.

For this assignment, you will need to modify your original code so that instead of a single calculation and message, you will display a range of calculations based upon what the user input. For this modification, you must allow the user to enter a decimal number for the mass and you will display a message which shows the mass and weight for each whole number increment from 10 kg less than the mass entered to 10 kg more than the mass entered as well as whether the object is too heavy, too light, or just right at each one of these intervals.

Note: Your assignment will be graded along 3 primary facets.

Category	Criterion	Value
1. Correctness	does it compile and produce the correct results	75 points
2. Style	comments, use of whitespace, variable and method names	15 points
3. Robustness	Is the code reusable? Does the code use the language constructs effectively? Is the code efficient?	10 points