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1  /*-----*/
2  * Author:      Dan Cassidy
3  * Date:        2015-07-24
4  * Assignment:  HW6-1
5  * Source File: UnitConversion.java
6  * Language:    Java
7  * Course:      CSCI-C 490, Android Programming, MoWe 08:00
8  -----*/
9  package dancassidy.bmicalculator;
10
11 /**
12  * Small utility class to convert between different units.
13  *
14  * @author Dan Cassidy
15  */
16 public class UnitConversion {
17     // Conversion factors.
18     private static final double POUND_KILOGRAM_CONVERSION_FACTOR = 0.45359237;
19     private static final double INCH_METER_CONVERSION_FACTOR = 0.0254;
20
21     /**
22     * Converts kilograms to pounds.
23     *
24     * @param weightInKilograms The weight in kilograms.
25     * @return The weight in pounds.
26     */
27     public static double weightKilogramsToPounds(double weightInKilograms) {
28         return weightInKilograms / POUND_KILOGRAM_CONVERSION_FACTOR;
29     }
30
31     /**
32     * Converts pounds to kilograms.
33     *
34     * @param weightInPounds The weight in pounds.
35     * @return The weight in kilograms.
36     */
37     public static double weightPoundsToKilograms(double weightInPounds) {
38         return weightInPounds * POUND_KILOGRAM_CONVERSION_FACTOR;
39     }
40
41     /**
42     * Converts meters to inches.
43     *
44     * @param lengthInMeters The length in meters.
45     * @return The length in inches.
46     */
47     public static double lengthMetersToInches(double lengthInMeters) {
48         return lengthInMeters / INCH_METER_CONVERSION_FACTOR;
49     }
50
51     /**
52     * Converts inches to meters.
53     *
54     * @param lengthInInches The length in inches.
55     * @return The length in meters.
56     */
57     public static double lengthInchesToMeters(double lengthInInches) {
58         return lengthInInches * INCH_METER_CONVERSION_FACTOR;
59     }
60 }
```