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1 import java.util.Scanner;
2 import java.util.InputMismatchException;
3
4 public class CountBMI {
5     // declare variables
6     static double weight;
7     static double height;
8     static double bmi;
9
10    public static void main(String[] args) {
11        // TODO Auto-generated method stub
12        welcomeMessage();
13        Scanner in = new Scanner(System.in);
14        weight = UserInput(in, "What your Weight? (lb)");
15        height = UserInput(in, "What your Height? (in)");
16        bmi = CountBmi(weight, height);
17        CastingBmi(in, bmi);
18        compareBMI(bmi);
19    }
20
21    public static void welcomeMessage() {
22        // Welcome message
23        System.out.println("Welcome to the BMI Calculator");
24        System.out.println("This program will calculate your BMI based on your weight and height.");
25        System.out.println("Please enter your weight in pounds and your height in inches.");
26        System.out.println("Press Enter to continue.");
27        System.out.println("Press Ctrl+C to exit the program.");
28        System.out.println("Press any key to start the program.");
29    }
30
31    public static double UserInput(Scanner in, String question) {
32        // work with variable height
33        double output;
34        while (true) {
35            try {
36                System.out.println(question);
37                // initial variable height
38                output = in.nextDouble();
39                System.out.println("Thanks");
40                // processing the error
41            } catch (InputMismatchException ex) {
42                System.out.println("Error in your input");
43                // resets this scanner
44                in.reset();
45                in.nextLine();
46                continue;
47            }
48            //check that the input value is not 0
49            if (Double.doubleToRawLongBits(output) <= 0) {
50                System.err.println("You must provide a correct input(double precision float)");
51            }
52        }
53    }
54 }

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52         continue;
53     }
54     break;
55 }
56 return output;
57 }
58
59 public static double CountBmi(double weight, double height) {
60     // Count BMI in Imperial BMI Formula
61     // BMI = weight (lb) * 703 / (height (in))*(height (in))
62     return bmi = weight * 703 / (height*height);
63 }
64
65 public static void compareBMI (double bmi) {
66
67     if (bmi < 15 ) {
68         System.out.println("You have a Very severely underweight");
69     }
70     else if (bmi <= 16) {
71         System.out.println("You have a Severely underweight");
72     }
73     else if (bmi <= 18.5) {
74         System.out.println("You have a Underweight");
75     }
76     else if (bmi <= 25) {
77         System.out.println("You have a Normal (healthy weight)");
78     }
79     else if (bmi >= 30) {
80         System.out.println("You have a Overweight");
81     }
82     else if (bmi >= 35) {
83         System.out.println("You have a Moderately obese");
84     }
85     else if (bmi >= 40) {
86         System.out.println("You have a Severely obese");
87     }
88     else if (bmi > 40 ) {
89         System.out.println("You have a Very severely obese");
90     }
91 }
92
93 public static void CastingBmi(Scanner in, double bmi) {
94     System.out.println("Round your BMI? If answer yes, you should write 1, if no - 0");
95     // Casting int to double
96     int question = in.nextInt();
97     // ask user how value show for him
98     if (question == 1) {
99         int intBmi = (int) bmi;
100         System.out.println("Your BMI is " + intBmi);
101         return;
102     }
103     if(question == 0) {
104         System.out.println("Your BMI is " + bmi);
105     }
106     return;
107 }
108
```

CountBMI.java

Monday 14 November 2022, 01:07

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109 }  
110
```