Lab3
Due: Wednesday, 9/26/2018

Part 1: Write a program Receipt that prints a receipt representing the total of these items:

banana 2.25
sweetPotatoe 4.50
taco 1.10

Sum the above items and print out the total

Hints: The above variables should be declared as double (means they have a decimal)

double banana, sweetPotatoe, taco;

You also have to declare a variable representing the total

double total;

To get the variable called total to contain the sum of the items

total = banana + sweetPotatoe + taco;

Your receipt is made by a statement like this

System.out.println("The total of the items is "+total);

Save program as Receipt.java. Compile and run your program.

Part 2. Temperature Convertor
Write a Java class called FahrenToCels that converts a temperature from degrees Fahrenheit to degrees Celsius.
Here is the formula you will need: 
\[ fahrenheitTemp = \left( \frac{celsiusTemp \times 9.0}{5.0} \right) + 32 \]
\[ celsiusTemp = \left( \frac{fahrenheitTemp - 32}{5.0} \right) \times 9.0 \]

Develop a class that takes 20°F and converts that to equivalent degrees Celsius. Think about what primitives to use when you declare the variables. The output should look like:

*20.0 degrees Fahrenheit equals ___ degrees Celsius.*

Steps

1. Declare and initialize variables
   ```java
double fahrenheitTemp, celsiusTemp;
```
2. Initialize `fahrenheitTemp = 20.0`
   ```java
   fahrenheitTemp = 20.0;
   ```
3. Use above formula to compute `celsiusTemp`
4. Print out answer
   ```java
   System.out.println(fahrenheitTemp + " degrees Fahrenheit equals " + celsiusTemp + " degrees Celsius");
   ```
5. Write a test to verify answer and print out the answer. This means take what you got for `celsiusTemp` and use the other formula to arrive at the `fahrenheitTemp`
   ```java
   double testFahrenheit;
   testFahrenheit = (celsiusTemp * (9.0/5.0)) + 32;
   System.out.println("Regression test gives " + testFahrenheit + " as answer");
   ```

**Part 3: Interactive Input**

You will write a program to **read in the first and last name** and **age** and then print a Happy Birthday message.

Steps.

1. `import java.util.Scanner` as the first line of your program
2. After the start of the main method declare the keyboard as the input means
Scanner keyboard = new Scanner(System.in);

3. Print messages to cue the use to enter first name

    System.out.println(“Enter your first name”);

4. Read the input String in

    String firstName=keyboard.next();

5. Repeat steps 3 and 4 for last name

6. Cue the user to enter their age

    System.out.println(“Enter your age”);

7. Read the age in

    int age=keyboard.nextInt();

8. Print out birthday message that combines the variables

    System.out.println(firstName + “ “ + lastName + “ Happy “ + age + “ Birthday”);