Worksheet 1

1. What differences have you noticed between Java and Python so far?
   Use your own words. Feel free to use the internet to search.

2. In Java, write a program that asks for the user's name, then repeats their name back to them.
   Example input / output:

```
1    Enter your name: <user enters their name here>
2    Your name is: <program repeats the name here>
```

3. Rewrite the program described above in Python.

4. Identify the error in the following program and how to fix it.

```
1    import java.util.Scanner;
2
3    public class Main {
4        public static void main(String[] args) {
5            Scanner scan = new Scanner(System.in);
6
7            System.out.print("How many pizzas would you like?: ");
8            String pizzasCount = scan.nextLine();
9            System.out.println("You are ordering " + pizzasCount + " pizzas.");
10
11           double costPerPizza = 15.99;
12           double totalCost = pizzasCount * costPerPizza;
13
14           System.out.println("Total cost: " + totalCost);
15           scan.close();
16       }
17   }
```

5. Identify the three problems in the following line of ☕ code:

```
1    string thisIsAString! = "hi"
```

6. Identify why the following program won't run.

> Hint: Look very carefully.

```
1    import java.util.Scanner;
2
3    public class Main {
4        public static void notmain(String[] args) {
5            Scanner scan = new Scanner(System.in);
6
7            System.out.print("I'm thinking of a not-so-random number between 1 and 10: ");
8            int guess = scan.nextInt();
9            System.out.println("You have guessed " + guess + ".");
10
11           boolean isCorrect = (guess == 2); // This line is correct.
12
13           System.out.println("The guess was correct?: " + isCorrect);
14           scan.close();
15       }
16   }
```

7. In Java and Python, define a variable for each of the following types with your choice of data

   a) int b) String c) double d) char e) boolean