

CSSSKL142 - Lab 1

BlueJ installation/tutorial, fixing syntax errors, print statements

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Note: Before leaving the lab today submit your code (java files only) to Canvas. The files don't need to be perfect, but they document your participation and progress in the course.

Part 1

If you are not already somewhat familiar with BlueJ, examine the quick tutorial developed by Prof. Zander at: <http://courses.washington.edu/css161/zander/Notes/bluejUse.html>

A more extensive tutorial by can be found at: <http://www.bluej.org/tutorial/tutorial.pdf>

Part 2

The code below has many syntax (and other) errors. Create a project called Lab1 and a class called Lab1a. Then copy the body of the class below:

```
// Lab1a.java
// This short class has several bugs for practice.
// Authors: Carol Zander, Rob Nash, Clark Olson, you

public class Lab1a {
    public static void main(String[] args) {
        compareNumbers();
        calculateDist();
    }

    public static void compareNumbers() {
        int firstNum = 5;
        int secondNum;

        System.out.println( "Sum is: + firstNum + secondNum );
        System.out.println( "Difference is: " + (firstNum - secondNum );
        System.out.println( "Product is: " + firstNun * secondNum );
    }

    public static void calculateDistance() {
        int velocity = 10; //miles-per-hour
        int time = 2, //hours
        int distance = velocity * time
        System.out.println( "Total distance is: " distanace);
    }
}
```

Compile the code and fix the errors one at a time. Some of the error messages may be confusing; the message doesn't always clearly describe the problem. If you get stuck, comment it out by putting "//" at the start of the line and come back to it later. When you've fixed all the errors, execute main of the program and raise your hand so I can check it.

Part 3

Create a class in the project Lab1 called Lab1b. Write a program to produce the song output below:

5 bottles of beer on the wall
5 bottles of beer
Take one down and pass it around
4 bottles of beer on the wall

4 bottles of beer on the wall
4 bottles of beer
Take one down and pass it around
3 bottles of beer on the wall

3 bottles of beer on the wall
3 bottles of beer
Take one down and pass it around
2 bottles of beer on the wall

2 bottles of beer on the wall
2 bottles of beer
If one of those bottles should happen to fall
1 bottle of beer on the wall

1 bottle of beer on the wall
1 bottle of beer
Take it down and pass it around
No more bottles of beer on the wall

Use print and println statements, but use method calls to reduce the number of repeated print and println statements. It's started for you here:

```
// Lab1b.java
// This is a practice lab to output a few verses of "99 bottles of beer on
// the wall"
// Authors: Carol Zander, Clark, Olson, you

public class Lab1b {
    public static void main (String[] args) {
        int numBottles;           // number of bottles currently on the wall

        // display first verse
        numBottles = 5;
        System.out.print(numBottles);
        onWall();
        System.out.print(numBottles);
        botBeer(); takeOneDown();
        numBottles = 4;
        System.out.print(numBottles);
        onWall();
        System.out.println();           // display blank line between verses
```

```
        // display second verse
        // [this is where you take over]
    }

    public static void onWall() {
        System.out.println(" bottles of beer on the wall");
    }

    public static void botBeer() {
        System.out.println(" bottles of beer");
    }
}
```

Note that the last two verses have some subtle differences from the previous verses. When you successfully get output that matches the given output, raise your hand so I can check it.

Part 4

Remember to submit your java files!