

# Lab Report 01

## Problem

State the given problem clearly in one's own words. Do not just copy and paste the description given in the lab.

**Had to create an initial shape and then create 2 copies horizontally adjacent to each other.**

## Proposed Solution

Give a hypothesized algorithm to solve the problem. This description must be a detailed and high-level without using implementation details. One way to think of it is it combines both the hypothesis and the procedure. Flow Charts and graphics are strongly encouraged.

**Create a Java program with “System.out.println();” to print out the shapes needed**

## Tests and Results

Show a sufficient number of tests with the results demonstrating that the proposed solution works, which includes boundary conditions. Also show that the program works or halts properly for invalid values.

```
<terminated> Lab01 [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Aug 29, 2022, 10:50:49 AM – 10:50:50 AM) [pid: 18632]
Drawing the initial shape:
```

$$\left( \begin{array}{c} \overline{\phantom{x}} \\ \phantom{x} \end{array} \wedge \begin{array}{c} \overline{\phantom{x}} \\ \phantom{x} \end{array} \right)$$

Displaying 2 copies of the shape that are horizontally adjacent:

```
<terminated> Lab01 [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Aug 29, 2022, 10:52:18 AM – 10:52:18 AM)
Drawing the initial shape:
```

$$\left( \begin{array}{ccc} & - & \\ \text{ } & \wedge & \text{ } \\ & - & \end{array} \right)$$

Displaying 2 copies of the shape that are horizontally adjacent:

$$\begin{array}{cc} (\overline{\phantom{x}} \wedge \overline{\phantom{x}}) & (\overline{\phantom{x}} \wedge \overline{\phantom{x}}) \\ | & | \\ | & | \\ | & | \\ | & | \end{array}$$

```
<terminated> Lab01 [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Aug 29, 2022, 10:53:01 AM – 10:53:01 AM)
Drawing the initial shape:

(  ^  )
|      |
|      |
|      |
|_____|

Displaying 2 copies of the shape that are horizontally adjacent:

(  ^  )  (  ^  )
|      |  |      |
|      |  |      |
|      |  |      |
|_____|  |_____|
```

## Problems Encountered

Enumerate the issues that arose from creating this solution. Include major syntax, run-time, and logical errors with their respective solutions.

**I had syntax errors because I forgot to add semicolons.**

## Conclusions and Discussion

Sum up the lab and the results. Also discuss other ways to have solved the problem in a better way with supporting evidence.

**The basic concept of the lab was to use and understand “System.out.println();”. I chose to add spaces between the two shapes, I could have used “+“\t”+” between the shapes.**

## Additional Questions

There may be additional questions that will be provided in order to demonstrate the understanding of the subject.

1. What is *bytecode*?
  - a. The type of code that is the result of translating written code to a Java based code for a computer to run.
2. Expand RAM
  - a. Random Access Memory