

### Difficulties:

After the first programming assignment, I really began to understand how to complete the homework assignment and how to work with gradle. However, there are parts of this assignment that I found to be difficult. Specifically, I had trouble with decoupling the button and lightbulb through a dependency inversion. I was confused on how to implement the inversion of dependency with the lightbulb and the button. I took me some time but I was able to fix this issue by creating an interface called “Switchable” which aided me in the inversion of dependency. In the Lightbulb class, I implemented the Switchable interface, which has only two functions of switchON() and switchOff(). Through this hierarchy I was able to successfully complete the inversion of dependency.

Completion Status: Complete

### Code Statistics:

*Lines of Code: 61*

*Line of Unit Test Code: 109*

*Unit Test Coverage: 100%*

Source Code: <https://github.com/olemeha/Oleksandr-Lemeha-PA-2>

### Answer to Question in Part 3:

No, we don't need to re-build the bulb because we have implemented inversion of dependency using Switchable Interface. In either case we change the Bulb or we change the Button we don't need to change the other component because they are not tightly coupled with each other.