The most difficult part of the assignment was to fully understand the requiremnt.s This is followed by the difficulty to decouple.
This homework is complete with junit tests done.

Lines of Code in package:
      Buttons LOC: 52
      Cyclomatic complexity: 12

      Lightbulb LOC: 11
      Cyclomatic complexity: 1

      TableLamp LOC: Only contains tests and main function

Unit test coverage = 100%

The lightbulb need not be re compiled even when the calling function has changed, because there is no direct dependency between Lightbulb and the Button classes. The Lightbulb merely conforms to the interface Ilightbulb and the Button class calls the method signature in the interface. So any change in Lightbulb can be deployed independent of Button or any other class. It just has to make sure that it follows the interface specification. The dependency in the Button and Push button point toward the abstract interface. When another type of light is placed instead of the current one, whether it be CFL, a tube, or an LED light, nothing need to be changed in the system. Each low level detail of how the light will turn on and off will depend on the light's own implementation.