ASSIGNMENT 6

Course: Design Patterns and Software Testing   Marks Allocated: 14%
Semester: Winter 2018

INSTRUCTIONS:

- Create a simple application which uses at least five different design patterns. The application should be tested using JUnit.

TASK

- **Design Patterns (50% marks)**
  - Create a simple application which uses at least five different design patterns. A console application is sufficient.
  - The design should use at least 5 design patterns with justification.
  - You may improve an existing java application using design pattern. However, all the deliverables must be your original work.
    - clearly indicate the pattern used in comments.
  - In a word document, describe design patterns used in your application and the reason of choosing that design pattern.
  - Create a Class diagrams for the entire application - clearly showing the use of design patterns (attach to Word document)

- **Software testing (50% marks)**
  - To the Word document add a table of Test Cases, this test cases will be used to test your application.
  - Create Junit test that uses the above test cases.

- Test your application
  - In the word file, add screenshot showing your test results.

DELIVERABLES

- The source code as a zip file – clearly indicate patterns used in comments.
- Description of design patterns with justification (Use "why use this one instead of others?" type of argument to explain your selection of a pattern)
- Class diagrams - clearly showing the use of design patterns (in Word doc).
- A table of test cases used to test your application (in Word doc).
- Screenshots of your test results (in Word doc).