

CS480 Software Engineering Assignment 9 - Software Design

Due Date

Thursday, March 5, 2015

Score

5

Questions and Directions

Note: This is an individual assignment.

In this assignment, you will be using the Object-Oriented design principles and design patterns to make a new code change or perform a code refactoring on existing code. The goal is to make your software more extensible and maintainable.

You should apply at least one of the following changes or design patterns:

1. Open-closed principle
2. Liskov substitution principle
3. Single responsibility principle
4. Interface segregation principle
5. Dependency inversion principle
6. Singleton pattern
7. Builder pattern
8. Flyweight pattern
9. Any other design patterns (http://en.wikipedia.org/wiki/Design_pattern)

To apply the pattern, you can either make a new code change for your project, or modify the existing code to make an improvement (i.e., code refactoring). You do not need to apply the principle or pattern to the whole program. You can just focus on individual classes or methods and improve the code.

To submit the assignment, you need to 1) push all the code changes to GitHub; 2) give a brief explanation about what you have done in the Git commit message. For the explanation, you need to describe which principle/pattern you used and how the code has been improved by the change.

The assignment will be graded by the following criteria:

1. Whether the principle/pattern is used correctly
2. Whether you understand the benefit the principle/pattern
3. Whether your code and design is clear and clean