Inventory Tracker Phase 1 Report/Exam

Provide evidence that you understand and know how to apply the following design principles and patterns. Your answers should consist of two parts. First, provide a general explanation of the principle or pattern. Explain what it is, why it is important, what problems it solves, etc. Second, explain how you and your group applied the principle or pattern on Phase 1 of the Inventory Tracker project. Provide source code examples, English explanations, and UML diagrams as needed to make your case. Give representative specific examples from your design that demonstrate the point (don't give every example, just the best ones). You will be graded based on how effectively you convince me that you understand and know how to apply the principles and patterns. Your answers should be convincing, but as brief as possible.

The exam is take-home, open-books, open-notes, and closed-people (i.e., you are not allowed to discuss the exam with anyone else). You may consult the Web, but copying-and-pasting content directly from the Web is not allowed; use your own words. There is no time limit.

1. Avoid Code Duplication
2. Singleton design pattern
3. Composite design pattern
4. Effective Data Encapsulation
5. Data Integrity Enforcement
6. Error Handling
7. Enable/Disable Support
8. Phase 1 Report
    a. Please evaluate your team members, including yourself. Assign each person a score on a 1 - 5 scale (5=Excellent, 4=Very Good, 3=Good, 2=Unsatisfactory, 1=Disaster). Provide any commentary you would like.
    b. A list of all team meetings held during the phase, including the length of the meeting and a list of attendees
    c. Anything you would like to tell the instructor about how your team is functioning (or not functioning)