

## (60–311) ASSIGNMENT 4

*Due:* 10:00am, Nov. 29, 2010

1. (*optional 18.3, p. 438*) Give four circumstances where you might recommend against software reuse.
2. **19.1** (p. 461) Why is it important that all component interactions are defined through requires and provides interfaces?
3. (*optional 31.1, p. 769*) What are the important distinctions between services and software components?
4. (*optional 17.5, p. 414*) Suggest why test-first development helps the programmer develop a better understanding of the system requirements. What are the potential difficulties with test-first development?
5. **22.2** (p. 536) Explain why it is not necessary for a program to be completely free of defects before it is delivered to its customers. To what extent can testing be used to validate that the program is fit for its purpose?
6. **23.1** (p. 565) Explain why testing can only detect the presence of errors, not their absence.
7. (*optional 21.8, p. 510*) Under what circumstances might an organization decide to scrap a system when the system assessment suggests that it is of high quality and high business value.
8. Are the classes in the object model of Assignment 3 (Q8) reusable components? Explain the reasons. Use one of your classes as an example to discuss how to make reusable components.