CMSC 435 - Software Engineering
Spring 2010
Quiz 6

Name: SOLUTION

Answer the questions below. Be clear and concise in your answers, writing in complete sentences and providing examples for support as appropriate. No answer should take more than three sentences. You will lose points if you do not follow these instructions.

Note: There is no need to write in complete sentences on question 2 of this quiz if you name objects and calls appropriately.

1. (2 pts.) In object-oriented development, inheritance can be considered a **design** concept or an **implementation** concept. Why do some argue that specifying inheritance during design is a bad idea?
   Some argue that inheritance can unnecessarily restrict the developer. This is related to the argument of whether inheritance is even required for OOP, but is also a design principle, that we should only constrain the implementation as much as necessary.

   Points:

   - 2 points for correct answer

2. (8 pts.) Draw a UML sequence diagram for a task "Save As ..." in a word processor. Identify and include at least 3 objects. Remember than the sequence diagram shows a sequence of calls from the user through several objects, and back to the user. Name your objects and methods such that their purpose is intuitive.
   See page 22 of slide set 5 for the sequence diagram that was discussed in class. Yes, this is not necessarily a strict UML sequence diagram, but it is what was covered in class. I even drew a picture of this diagram on the board before the quiz, and after the quiz was distributed, I explained the diagram. Still, nearly a third of the quizzes or more used some other diagram. I did my best to give points for identifying objects and relationships, even in the wrong diagram.

   Any choice of objects from a word processing software was fine, and any method names that made sense for object communication were fine and given full credit.

   Points:

   - 2 points for object identification
   - 3 points for forward messages (from user to objects)
   - 3 points for including return messages (from objects back to one another, eventually to user)