

## **CMSC 132 Quiz 4 Worksheet**

The fourth quiz of the course will be on Wednesday, April 16 during your lab (discussion) session. The following list provides more information about the quiz:

- The quiz will be a written quiz (no computer).
- Closed book, closed notes quiz.
- The quiz material is Object-Oriented Design, Software Design and UML class diagrams.
- Answers must be neat and legible. We recommend that you use pencil and eraser.

The following exercises cover the material to be included in this quiz. Solutions to these exercises will not be provided, but you are welcome to discuss your solutions with TAs and instructors.

### **Software Development**

1. What is the Software Life Cycle?
2. What is a Software Process Model?
3. What is the Unified Process Model?
4. When would a waterfall process model be more appropriate than an agile development model?
5. Name two kinds of testing we can have and two characteristics associated with each one.
6. Describe two problems with writing software specifications.

### **UML Design**

1. Write an UML class diagram for a system that allows you to keep track of the DVDs your friends have borrowed.
2. Many cable companies offer a service called DVR (Digital Video Recording). In this service a hard-drive (around 120 Gigabytes) is used to store shows a user wants to record. Write an UML class diagram for the software that will control such a system.
3. Write an UML class diagram for a system that accepts electronic submissions of computer programs similar to the submit server used in this course.