SEG2105. Introduction to Software Engineering

Assignment 2

Fall 2015

Assignment due: October 10 2015.

This is an individual assignment. You must work strictly alone on this.

Hand in answers to the following. It is suggested that you do PART 1 from Chapter 2 by October 1, and do PART 2 from Chapter 5 around Oct 5 after we have covered the material in the lectures.

PART 1 (Chapter 2) (26 points)

1. E12 (pages 43-45), parts d, e and g. You may use Umple for this. (15 points)
2. E15 (page 50), part c. (5 points)
3. E18 (page 51), parts c, d and e (6 points)

PART 2 (Chapter 5) (24 points)

Create a UML class diagram for system described below. Make sure you include correct multiplicity. Show all attributes and associations plus at least five important operations. If generalizations are necessary, show them too. Marks will be given for effort, even if you don't have a perfect solution. However, marks will be lost for the common types of mistakes we talked about in class (e.g. poor generalizations, wrong multiplicity, etc).

Imagine you were re-creating Top Hat Monocle. Model the classes, associations and generalizations necessary. You need to track **at least** the following:

- **Students** who have accounts, along with their student number and name, their cell phone number (if they are using one), courses they have access to, the questions they have responded to and their grades on those questions, plus their total grade so far in each course.
- **Professors** who create questions in courses (and there may be multiple offerings/sections of the same course)
- **Questions**, their possible answers and which of the answers is correct. Each question also has a grade to be awarded for students who try it, and a grade to be awarded for students who get the answer right. Each question also has a status: 'Active and Visible', 'Active', 'Visible', 'Review' (students can see their answer), and 'Inactive'.

Bonus (+5 points). Use Umple for PART 2.