Computer Science 3716
Fall 2010

Midterm Exam

October 14, 2010

Instructor:
T. Wareham

NAME: __________________________ STUDENT ID #: _____________

- This exam will be 75 minutes long and is out of 75 marks.
- This exam has 7 pages (including this cover page). There are 3 questions, each of which have multiple parts.
- Please answer all questions in the space provided on this exam; if you find it necessary to continue an answer on the back of a sheet of paper, that is fine, but please make a note on the front side, e.g., “answer cont’d on back”.

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1. (10 marks)

   a) (5 marks) List the four main sections of a requirements document.

   b) (5 marks) List the four main stages of the software development process.
2. (40 marks)

a) (10 marks) Sketch the use case diagram for Example #2.
b) (15 marks) Consider the use case Sell ice cream (Retail) for Example #2 given in the handout. Assuming that ice-cream cones are sold in the majority of cases, rewrite this use-case with basic, alternative, and exception path flows of events.
c) (15 marks) Write the use-case *Register pickup complaint* in Example #1 with basic and exception path flows of events.
3. (25 marks)

a) (15 marks) Consider the following UML domain model for Example #1:

Give the locations (via a numbered circle) and briefly describe five additional mistakes in this domain model relative to the given description.

1. Should be aggregation rather than generalization relation

2.

3.

4.

5.

6.
b) (10 marks) Sketch a UML domain model for Example #2.