

CSCI 4050/6050 – Homework 1

Due: 9/24/2013

15 points

UML Class Diagram Modeling

Imagine that you have to implement a graphical designer capable of creating UML Use Case Models. Create a UML class diagram needed to represent Use Case Models in such a designer.

Assume the following: a *Use Case Model* is composed of one or more *Use Case Diagrams*. Each *Use Case Diagram* is composed of one or more *Use Cases* and one or more *Actors*, as well as *relationships* among them. An Actor may be *associated* with (interacts with) one or more Use Cases. Furthermore, an Actor may have a single *parent* Actor, or no parent at all (Actors may be organized into a hierarchy). You must represent the *include* and *extend* relationships among Use Cases. An Actor may be used in *multiple* Use Case Diagrams. Each class in your diagram should have a suitable collection of *attributes*, but do not include operations. You *must not* represent use case descriptions in any way.

In creating your class diagram, you should use appropriate UML modeling elements.

The class diagram *must* be created using a UML designer tool, and *may not* be created using a general diagramming tool, such as Visio, or PowerPoint. You may select one of the following:

- StarUML
- Rational Software Architect (available in the 307 lab)
- Rational Modeler (a free download from IBM)
- Astah
- Visual Paradigm for UML
- Umbrello

Submit your class diagram in a form of a PDF file to the user `csx050` on `nike`. You must use the `submit` command available on `nike`. JPG, PNG, and TIFF formats are also acceptable.