

## CS 378 - Fall 2014 - Homework 2

**Due date:** 9/16/14 by 11:59pm, late work is not accepted

**Submit:** A zip file of your entire project folder.

Name your zip file: **<last-name><first-name>-hw2.zip**

Example: for Joe Smith SmithJoe-hw2.zip

**Description:** This will be an exercise in defining and using custom classes, in a 2-level class hierarchy, in Objective-C

1. Create a Single View application project named ClassHierarchy.
2. Define a (base) class with at least two public properties. They can be of any type.
3. Define two classes that are derived from the base class from #2. Each derived class must have at least two public properties of their own.
4. Each class must implement the 'init' method. The init method must include the standard init method code to execute the base class init method and, conditionally, initialize properties defined in that class.
5. Each class must implement an additional 'init' method that accepts arguments for each of the properties defined. For the base class, that would be just the properties of the base class. For derived classes, that would be the properties of both the base and derived classes.
6. In the view controller's viewDidLoad method, create (allocate and initialize) an object of each of the three classes you've defined.
7. Modify one property for each of the objects - but they can't all modify the same property - for example, they can't all modify a property of the base class.
8. Build and Run your app to verify proper execution.

Grading criteria:

1. The application builds and runs. (10%)
2. The base class contains two properties. (10%)
3. The base class implements the 'init' method. (10%)
4. The base class implements the additional 'init' method. (10%)
5. Each derived class contains two properties of their own. (10%)
6. Each derived class implements the 'init' method as defined. (20%)
7. Each derived class class implements the additional 'init' method as defined. (10%)
8. An object of each class is properly allocated and initialized. (10%)
9. A property of each object is modified. (10%)