**CS302 Semester Project**

**Spring 2014**

**Professor Nicholas Timinskas**

**This class project is due before class begins (6:59pm) on the day of Presentations.**

**Remember, this project constitutes 40% of your final grade.**

**During class, you will give a 20-30 minute presentation to the class on your project, showcasing several elements of your software package including:**

* **UML diagrams** 
  + **Activity Diagrams**
  + **Use Cases**
  + **Class Diagrams**
* **Finished Program w/ screenshots and actual demo**

**The project that you will be assigned to complete during the course of the Spring 2014 semester is:**

**Recipe Creator and Manager**

The high-level requirements for the project are as follows:

You are to create a recipe creator and manager in Java which has this basic functionality:

1. Allows users to create new recipes
2. Allows users to edit and delete recipes
3. Stores up to 100 unique recipes
4. Indexes recipes based upon main ingredients, categories (lunch, dinner, desert, etc.), and other fields, and allows for searchable queries into a database of stored recipes
5. Has a GUI to view recipes and a list of all current recipes within the program at any given time
6. Has the ability to search allrecipes.com for specific keywords and download one random recipe containing those keywords into the program’s database
   1. http://food2fork.com/about/api
7. Has the ability to email recipes to user-inputted email addresses
8. Allow for the selection of “favorite” recipes through a rating system, and allow for the addition of comments into the recipes tracked over time with a time stamp
9. Allow for the immediate posting to Facebook of any recipe within database
10. Allow for the storage and intake of images for each recipe

All documentation will be a part of this project and will be due with the final build as a deliverable before your slotted presentation. Each team will give a 20-30 minute presentation describing the overall experience with the project, some of the things they learned working in a team, how they applied their knowledge learned in this class to the project, and then walking everyone through the documentation, development, build, and final version of the recipe program.

Recipes should contain the following data:

* Title
* Main Ingredients
* Ingredients (with quantities)
* Alt Ingredients
* Instructions
* Prep Time
* Category (Dinner, Lunch, Breakfast, Dessert, Snack, Appetizer, Drinks)
* Sub-Category (Beef, Poultry, Fish, Bread, etc.)
* Comments
* Rating

For all other questions pertaining to this project, I will play the part of the CLIENT, and will provide any feedback to questions you ask of me. I will make myself available during the lab portion of our class, for each team to interview me pertaining to specific project requirements. Each week in class, as we go through the various topics in the book, we will produce the needed documentation items that are going to help you complete this project.

Please note:

Whereas you will be graded by your adherence to the documentation and requirements that you generate throughout the course of this semester, through interviews with the CLIENT, you are encouraged to exercise your creativity and imagination in every possible way. Since you are going to present your final solution alongside the other teams in the class on April 30th, you want to make sure that your finished product stands out from the rest in order to obtain the highest grade possible. There should be enough freedom within the stated and gathered requirements (particularly in the areas of GUI design and all look-and-feel elements) that should allow you to distinguish your project from others. Also, whereas in the “real world” you should never go beyond the expressly stated scope of your project, for this class project I encourage experimentation and creativity in the areas of new functionality, SO LONG AS IT DOES NOT INTERFERE WITH ALL BASIC REQUIREMENTS. In other words, if you fully implement the basic recipe manager program as outlined above, and decide to add a new feature that allows you to color-coordinate your recipes based on categories, that will count favorably toward your overall grade.

Throughout the course of the semester, we may also be reviewing the documentation you are generating for this project in class as well. During those times, to promote thoroughness, completeness, and quality, your documentation may compete against the documentation produced by the other teams. These competitions will receive very special prizes, to be discussed in class. ;)

Project Documentation

You will need to provide, along with all source code for your project, the following documentation:

1. A requirements specification document containing:
   1. Introduction
   2. Glossary
   3. User requirements definition
   4. Diagrams, including:
      1. Class diagrams with associations for your entire program
      2. Use case diagrams (*and* tabular descriptions) for 2 of the high level requirements mentioned above: #1 and #4
      3. A sequence diagram outlining High level requirement #7

In addition to this documentation, your code should be well commented!!

**GRADING CRITERIA FOR PROJECT**

The Project will be graded as follows:

*Presentation*

1. Did it meet requirements?

2. Presentation quality—does the presenter

a. Understand the material?

b. Is the Presenter enthusiastic?

c. Is the Presenter clear to understand, and using appropriate terminology?

3. Was it within 20-30 minutes?

4. Did it adequately summarize/introduce the project?

5. Did it “sell” the project to the audience?

*Project*

1. Did it meet all requirements?

2. Did it demonstrate knowledge of the subject matter?

3. Did it demonstrate creativity and “pride of ownership”?

4. Did it demonstrate concepts learned throughout the semester?

5. Did it work???