**ICS4UE** **ICS Healthy Food Guide Project**

Introduction

With so many food items available and so little time for research, it has become difficult for people to determine the nutritional information of the food they eat regularly. Thankfully, both the Canadian and US government spend money on lengthy data analysis of products on the market and provide access to the information to the public. Unfortunately, the data is unformatted and impossible to follow by the typical non-coder.

The Task

Using one of your data structures as a tool, you will be designing a program to organize the data provided by the USDA. Your GUI should make it easy for users to search and display nutritional information of various foods. The database should also support adding of items to the data base.

The final software solution should be an application that gives the user easy access to information. They should be able to easy find (through lists/searches/etc.) information on particular food items. From a programmer's perspective, a well-built system makes good use of object oriented design principles, data structure design, and graphics interface principles. From a user's perspective, a very effective program will be easy to use, fast, and informative.

The Details

- The files are in a format that has been created by the USDA and should not be modified
- The files need to be cross-referenced to get all the pertinent information about the food item
- You should be loading information into data structures to minimize loading of files during your programs execution
- There is a lot of data that needs to be provided to the user, you should be thoughtful about your interface design
- Adding a new item to the list means adding the appropriate correctly formatted data into the appropriate files
- A description of the file organization can be found in the pdf files provided by the USDA
- The choices you make for your GUI design and data structures will govern the speed, efficiency, and usability of your final product

Marking

- See rubric for details