Preamble

Last modified:	2014-03-06
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Summary:	A database system for keeping track of nutritional content of foods, including ingredient lists, etc.
Project idea link:	http://ndb.nal.usda.gov/ndb/search/list
Project location:	betaweb:/home/nbook/tnd

Domain Description

Our system will act as a repository for the very detailed nutritional information. Our database will be based on the data available from the USDA, and intended to provide high availability and more advanced searching capabilities. A user would be able to query the information based on a variety of search conditions, including conditional and boolean expressions to refine terms. Giving the user the ability to enter new information into the database could be implemented, but given the breadth and depth of the information provided by the USDA this may not be a realistic use case.

Use Cases

Case 1:

Paul is a sophomore varsity athlete at the University of Rochester and was used to simply eating everything that he could find at the Rochester cafeterias. Once his couch brought in a nutritionist, he realized that the quality of food that he put in his body was just as important as the quantity of food that he consumed. So, he was able to access our system and get nutritional information on the food that he regularly ate at the cafeteria and was able to understand that some foods are clearly more beneficial than others. He was also able to plan out which foods to eat when in relation to his practices based on the type of nutrition he needed before, during and after a workout.

Case 2:

Matt is a freshman at the University of Rochester who was just diagnosed with an allergy to peanuts. However, Matt doesn't know what he can and can't eat due to his allergy yet. By logging and specifying a peanut allergy, the database and website bring up a list of all the foods on the menus of the dining halls which are unsafe to eat for Matt because they could have come into contact with peanuts.

Case 3:

Jimmy is a sophomore at the University of Rochester and was recently diagnosed with having a calcium deficiency. Using the database, he can specify an option that states he wants all foods which have a calcium content of higher than 100 mg. The query will group the foods available by calcium content and sort them from highest to lowest. Then it will take the foods that have content higher than 100 mg and return those to Jimmy.