CS480 Final Project Requirements (Preliminary version – 8/2/17)

The final project for company: “bizdev Solutions, Inc.” is a cooking software application. The application functions by taking in user input as a personally selected list of ingredients and outputs a list of recipes that the user can cook with the given ingredients. The motivation is that when a user becomes hungry and is uncertain about the recipes he/she can cook, this application can help assist to narrow down a preferred type of meal or cuisine based on the ingredients at hand.

For this application to be viable, it must be able to provide an option to the user to search and select a variety of different ingredients to cook with. By choosing more ingredients, the number of recipes that can be made will readily increase. If a user enjoys using a common set of ingredients, those ingredients can be saved as favorites for future easy access, and then the user can add additional ingredients as needed for more specialized dishes. The application can also keep a certain number of the most often used, or most recently used ingredients. As an example, a user that prefers pasta in Italian cuisine would likely desire to keep items such as oil, salt, butter, garlic, cheese, tomatoes and pasta as easy accessible ingredient options, but may like to add new ingredients to experiment with, such as a pasta dish that includes spinach, sausages or bacon. It would be also useful to have a general category of commonly used ingredients that are preset in categories such as vegetables, fruits, meats, grains and dairy. This can be useful for more simple dishes and helps to minimize the number of button press to search for each ingredient. Or if a user enjoys lots of protein, selecting meats will list options of common poultry and fish.

Once a user has selected the ingredients they desire to include into the final dish, the application will narrow down which recipes can be followed to cook. To increase flexibility, the filtered list of recipes should allow also further narrowing down by cuisine, such as Mexican, Italian, Indian, Chinese, etc, and by the type of meal such as breakfast, lunch and dinner. This way, the available options would not be too overwhelming to the typical user, at least suggesting a reasonable number of options. For commonly searched recipe entries, the user can save it to their favorites as well, like for ingredients. Creating new recipes from experimentation should be also an option. Lastly, if a user would like to cook a certain kind of dish even if the ingredients are not available, they should be also able to search for the recipe.

Having chosen a recipe, the recipe should provide a detailed list of ingredients and its quantities. It can also provide the step by step instruction on how to cook the dish, with a picture of the final product to show the person using the application how it should end up appearing. If the person was not successful in cooking the dish but would like to try out later, they always can search up the recipe again, or even save it in their favorites.

User Interface Requirements for Ingredients:

* Search bar to look-up ingredients
* Ability to add Ingredients
* Favorites button for ingredients
* History button for recently accessed ingredients
* Checkboxes for selected ingredients to search recipes with
* Scroll bar for the search results for ingredients (user types partially of an ingredient)
* Ability to return the main page for searching
* Buttons for a “category-type” list of ingredients, i.e. condiments, vegetables, fruits, meats, seafood, etc
* Ability to save ingredient as favorites

User Interface Requirements for Recipes:

* Search bar to look-up recipes
* Favorites button for recipes
* History button for recently accessed recipes
* Scroll bar for search results for recipes
* Pictures for each recipe?
* List of ingredients for each recipe
* Quantity of ingredients for each recipe
* Detailed instructions for each recipe
* Ability to return to the main page for searching
* Ability to save recipe as favorites
* Ability to narrow down search results by cuisine
* Ability to narrow down search results by meal type