Zero Waste Kitchen - Overview

The challenge is to have no waste food in a kitchen in a shared flat. That means that if something has been in the fridge for a few days and nobody seems to want to use it and nobody seems to know what to do with it, this app will provide suggestions of how the ingredient could be used. The effectiveness of the app depends on the positive mental attitude of the occupants of the shared flat.

If the app is too complex (portion sizes, costs etc) the average user is unlikely to want to maintain a database featuring many attributes. The attraction of this app is it’s simplicity. The overriding objective is to use that “cottage cheese” in a simple practical meal, rather than throw it away.

A future version of the app could include many more tables and functionality. However, this would require every student using the fridge to act as a stock taker and micromanage what goes in and out of the fridge, together with associated costs for each item. Knowing what a typical student flat is like, it is unlikely that all occupants would accept this level of rigour.

**UML Diagram**

The diagram shows the user starting the webapp and then being presented with the splash page containing a nav bar, a bold search box, possibly a logo and a brief guide. The user can enter search criteria (an ingredient) the back end will evaluate the search criteria, correct errors if necessary and lead the user to a results page. The results page will show the number of results available or a 0 result or an alert when the data is not understood. The user can select one of the results and be presented with an info page.

**ERD Diagram**

The ERD develops the “Library Model” (Borrower – Loan – Book) taking it one step further, and has as few tables as necessary. A Long list of ingredients is held in one table, each ingredient having a unique identifying number. A second table contains a list of recipes, again with a unique identifying number.

The link table is a very long table matching each ingredient to each recipe. This ensures that there are no repeating data in the recipe table, and the “many to many” relationship between recipe and ingredient is broken by the recipe\_ingredient\_bond table.

The app is augmented with more tables to accommodate corrections to commonly misspelt words, in the same way that a Google search will make assumptions about misspelt criteria. For example the correct word “Steak” might be incorrectly typed as:

Stake

Staek

Stayk

Equally, there are probably 8 incorrect ways to spell spaghetti.

Lastly, consideration is given to including an access control mechanism (username password). The desirability of this feature is to be discussed.