PRODUCT DOCUMENT

Group 4348

App Name: Foodle

1. Introduction:

Foodle is our revolutionary mobile based website dedicated to promoting sustainable cooking practices. Foodle does this by simplifying the complex negative environmental externalities of food consumption into one score for each recipe. Administrators within Exeter University accommodations will create groups for each kitchen within the accommodation. Students/Users can join these groups through QR codes within their accommodation kitchens (printed out by administrators). This promotes group cooking which has environmental benefits, such as reducing food waste, packaging, and energy consumption, while also increasing awareness of more environmentally friendly recipes available on the Foodle website.

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2. Key-features:

Foodle the Game:

Convincing students to use our website was at the forefront of many of our group meeting. This, combined with the requirement of gamification, led us to our solution. Foodle THE GAME. What if every day a student logged into our website instead of being greeted by some boring recipes, they were greeted by a 5-character word guessing game (based on Wordle) where all the words are names of food items. This would promote continued use and repeated revisiting of the website, while also attracting users who would otherwise have no interest a sustainable cooking website. A Foodle score generated based on the number of guesses it took a user to guess the word would be recorded and added to the user's profile. The one hundred users with the highest Foodle scores will be displayed and a badge will be added to each user's profile (Gold badge top 20% of Foodle scores, Silver badge top 50% of users outside of Gold, Bronze badge remaining users). This will create a competitive aspect to our website encouraging users to compete with one another and continually use our website.

Recipe Ratings:

A key focus of our website is ranking the sustainability of different recipes. Getting accurate sets of data for all the different environmental impacts of ingredients proved challenging. For our prototype we chose to focus solely on water pollution and eutrophication, with the belief that a crude estimation of the negative environmental impact of some food items was suitable for a demonstration of our concept. Eutrophication is the process in which nutrients accumulate in a body of water, resulting in an increased growth of microorganisms and causing substantial environmental degradation. This is measured in grams of phosphate equivalents (PO_4eq) per kilogram of food product.

Recipes with a lower environmental impact (displayed as a high Environmental Rating within website) will be promoted within the website while those with higher environmental impact (displayed as a low Environmental Rating) will be demoted or removed.

When a recipe is created either by an admin or a user, the recipe will be assigned an Environmental Rating based on the recipe's ingredients, quantity of those ingredients, and the number of people the recipe serves.

The calculation of the real negative impact a single food item bought from the local Tesco's has on the environment is incredibly difficult to compute. There are many variables to consider: Greenhouse gas emissions; water pollution and eutrophication; deforestation; soil degradation; loss of biodiversity; etc.

The list is long, and the weights assigned to each of these variables is highly location specific.

> Deforestation of the Amazon rain forest would be worse than most places in the world and this would need to be accounted for and weighted more heavily (for a hypothetical food item with this negative externality).

Focusing in on one of these negative externalities early will allow us to include others later and provide users better estimations of the negative impact of a given food item.

Kitchen Groups:

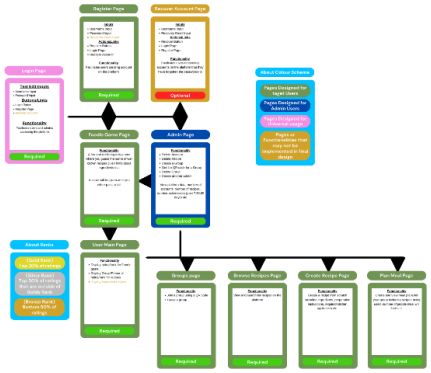
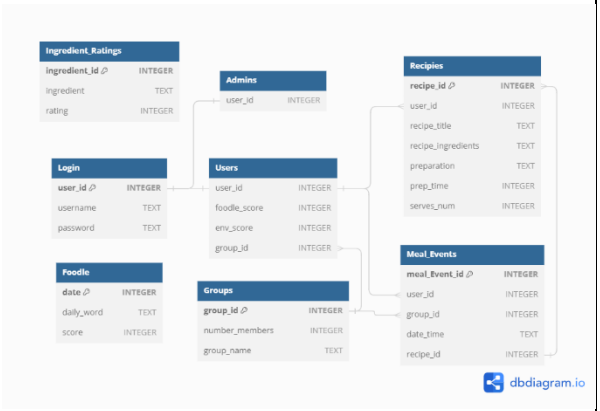
At the beginning of every new university year, administrators of Exeter accommodations, such as Holland Hall, Lafrowda, or Mardon Hall, would create a group for each kitchen in their accommodation. The Administrator would then print out and display QR codes linking to a join group page for each of these kitchens.

Students in these accommodations would be encouraged to scan these QR codes and join their kitchen groups. The majority of students living in university accommodation in Exeter are in their first year, cooking for themselves for the first time. Foodle would enable these students to learn to cook together in a more environmentally friendly way.

Meal Events and Environmental Score:

A member of a group can make a Meal Event where a date, time and recipe are selected. Meal Events are displayed to user in that group, encouraging group members to organise and cook together. The Environmental Rating of a recipe and the number of group members for a Meal Event will be used to add points to each member within the group. These environmental scores will be displayed in the same was as Foodle scores, with a separate page for the top hundred users with the highest Environmental scores and their own badge on each user's profile (Gold badge top 20% of Environmental scores, Silver badge top 50% of users outside of Gold, Bronze badge remaining users).

3. Product Design:

Current Website Design	Current Database Design
	

Designing a website and database with users and functionality in mind is essential for creating a seamless and user-friendly experience. Here's an overview the intended flow of users through our website and the database architecture that enables this website to function.

The scale of our web app is considerable, with many different features that all combine to create Foodle. The functionality of the website is supported by an extensive database, around which everything was developed. Constructing a well-planned, future-proof database before any frontend facilitates straightforward implementation of new and exciting features every version cycle, such as:

- Being part of more than one kitchen group
- Selection of different Foodle games to be greeted by every day
- The implementation location to get ingredient ratings specific to where you are in the world

There are so many possibilities with the initial implementation of a strong database architecture.

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4. Foodles Goal:

1. Create an intuitive, fun, and user-friendly website for discovering, sharing, and creating environmentally friendly recipes.

2. Educate users about environmentally sustainable cooking practices, ingredients, and recipes.

3. Cultivate a vibrant community around groups in university accommodations.

4. Support and promote environmentally conscious cooks who can share insights, tips, and experiences related to eco-friendly cooking.

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5. Conclusion:

Foodle represents a new era in sustainable cooking, where students can come together to explore, learn, and create delicious meals while making a positive impact on the planet. Foodle aims to inspire a global university movement towards more environmentally friendly consumption habits. Join us on our journey to a greener tomorrow, one recipe at a time.