COSC345 Assignment 1

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The team

Jennifer Puzey

I am a 4th year Computer Science and Environmental Studies student. I am on my second semester of exchange from the United States. I recently switched my degree from neuroscience. Outside of my studies, I am an avid backpacker and climber. I bring organisation, planning, and a love for cooking to the project

Robert Cresswell

I am a 6th year DipGrad computer science student. I previously got a BSc (Hons) in biochemistry. My honours project was studying the bioluminescence of the New Zealand glow worm. In my spare time I like to indulge in music production. I bring creative vision to the project.

What are you going to build?

We are planning to build a command-line virtual recipe book. This will come prepackaged with common recipes and some of our favourites. We plan on having a searchable index of recipes. Users will be able to search for a recipe based on: the recipe title, category tags, and the ingredients. We will also include the ability to add, edit and delete recipes, serving size adjustments, and unit conversions.

How is it 'back to basic'?

Everyone's got an old cookbook collecting dust on their shelf. This app will revive the cookbook with new twists, bringing your tried and true favourites to life. Passing down recipes is an important part of history and community. Our app aims to make it easy to keep your childhood favourites alive.

How are you going to build it?

The Tools

We plan on building the app primarily in C++ using some functions provided by the Win32 API. The tools we will use are git for version control, github for a remote repository and bug tracking, and doxygen for document generation.

Communication and Planning

Our main form of communication is through Messenger. We have meetings twice a week, 10am on Tuesdays and 2pm on Fridays in the lab. Our planning and internal documentation is mainly done using Notion, which is a task manager and planning app. On our notion project page we have: a breakdown of functionalities that will be included in our app, a schedule, various resources in regards to learning C and C++, and information about what is necessary for each upcoming assignment.

App Design

The app will have a main menu, and a table of contents which the user will be able to browse through to find the recipe they want to make. See *Figure 1* for a mock-up of how the recipe index page will look, and an example of how an individual recipe will look.
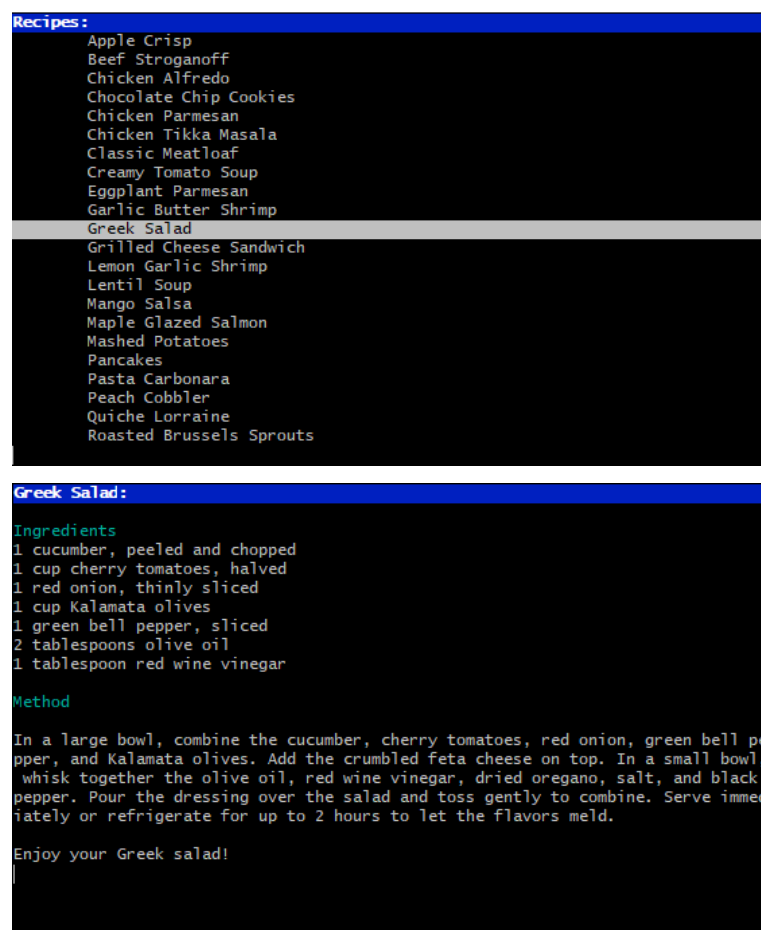


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Recipes:
        Apple Crisp
        Beef Stroganoff
        Chicken Alfredo
        Chocolate Chip Cookies
        Chicken Parmesan
        Chicken Tikka Masala
        Classic Meatloaf
        Creamy Tomato Soup
        Eggplant Parmesan
        Garlic Butter Shrimp
        Greek Salad
        Grilled Cheese Sandwich
        Lemon Garlic Shrimp
        Lentil Soup
        Mango Salsa
        Maple Glazed Salmon
        Mashed Potatoes
        Pancakes
        Pasta Carbonara
        Peach Cobbler
        Quiche Lorraine
        Roasted Brussels Sprouts
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Greek Salad:

Ingredients
1 cucumber, peeled and chopped
1 cup cherry tomatoes, halved
1 red onion, thinly sliced
1 cup Kalamata olives
1 green bell pepper, sliced
2 tablespoons olive oil
1 tablespoon red wine vinegar

Method

In a large bowl, combine the cucumber, cherry tomatoes, red onion, green bell pe
pper, and Kalamata olives. Add the crumbled feta cheese on top. In a small bowl,
 whisk together the olive oil, red wine vinegar, dried oregano, salt, and black
pepper. Pour the dressing over the salad and toss gently to combine. Serve immed
iately or refrigerate for up to 2 hours to let the flavors meld.

Enjoy your Greek salad!
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Figure 1. Preliminary CFood mock-ups. (Top) Main index of recipes. (Bottom) Example screen of a recipe.

Schedule

A working alpha release of the app will be delivered by August 30th. The alpha release will contain a main menu, a table of contents, and the ability to read from, store, save, and search for a recipe. The working beta release of our app will be delivered by September 20th. This release will add more features including, the ability to add tags to a recipe, and search based on these tags as well as search based on ingredients. The final release of the app will be delivered by October 11th. This release will add more features. See *Figure 2* below for the Gantt chart with more specifics about the planned schedule.
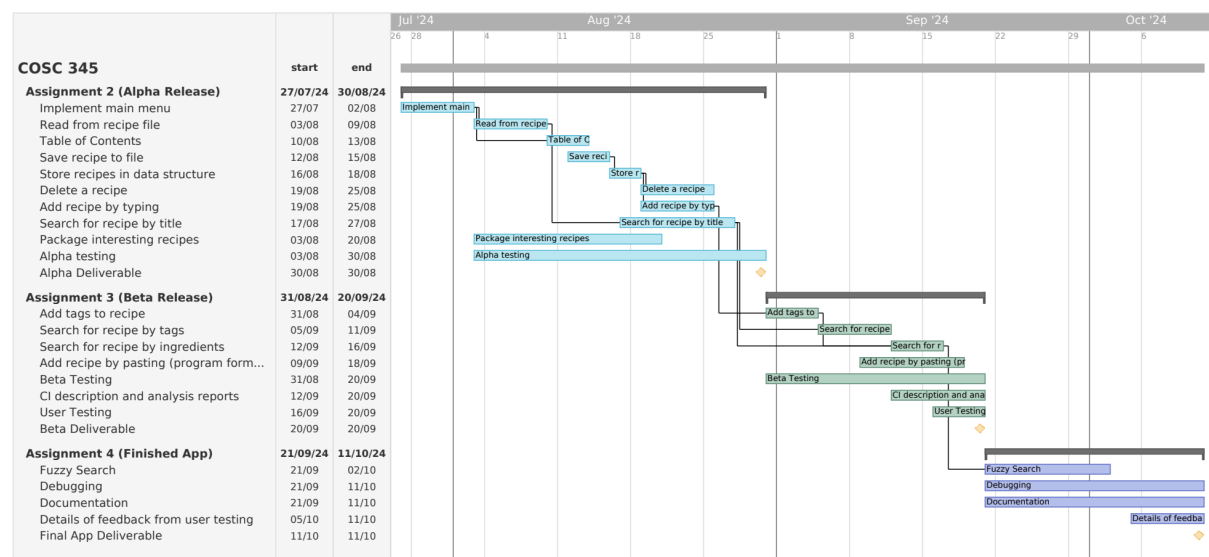

Figure 2. Gantt Chart depicting CFood development cycle.

What already exists that is similar to the app?

Many mobile applications exist for this category such as CookBook, Paprika Recipe Manager, My Recipe Manager, COOKmate, Mela and Recipe Keeper. Websites include Edmonds Cookery Book, Food in a minute, and Jamie Oliver. The basis of these apps is all a way to store recipes in a centralised location.

Evidence of customer interest

There is very high interest in this type of app, as can be seen by the great success of similar applications. My recipe Manager, and COOKmate each have over one million downloads on the google play store. Mela recipe app was an iOS runner-up for the best new app in 2021. Recipe Keeper app for iOS has 17,000 ratings with a 4.8 star average. Google trends indicates that New Zealand has the highest 'interest' out of all regions in the world for the topic 'Recipe' *see Figure 3*. Clearly, there exists a thriving market for this type of application.
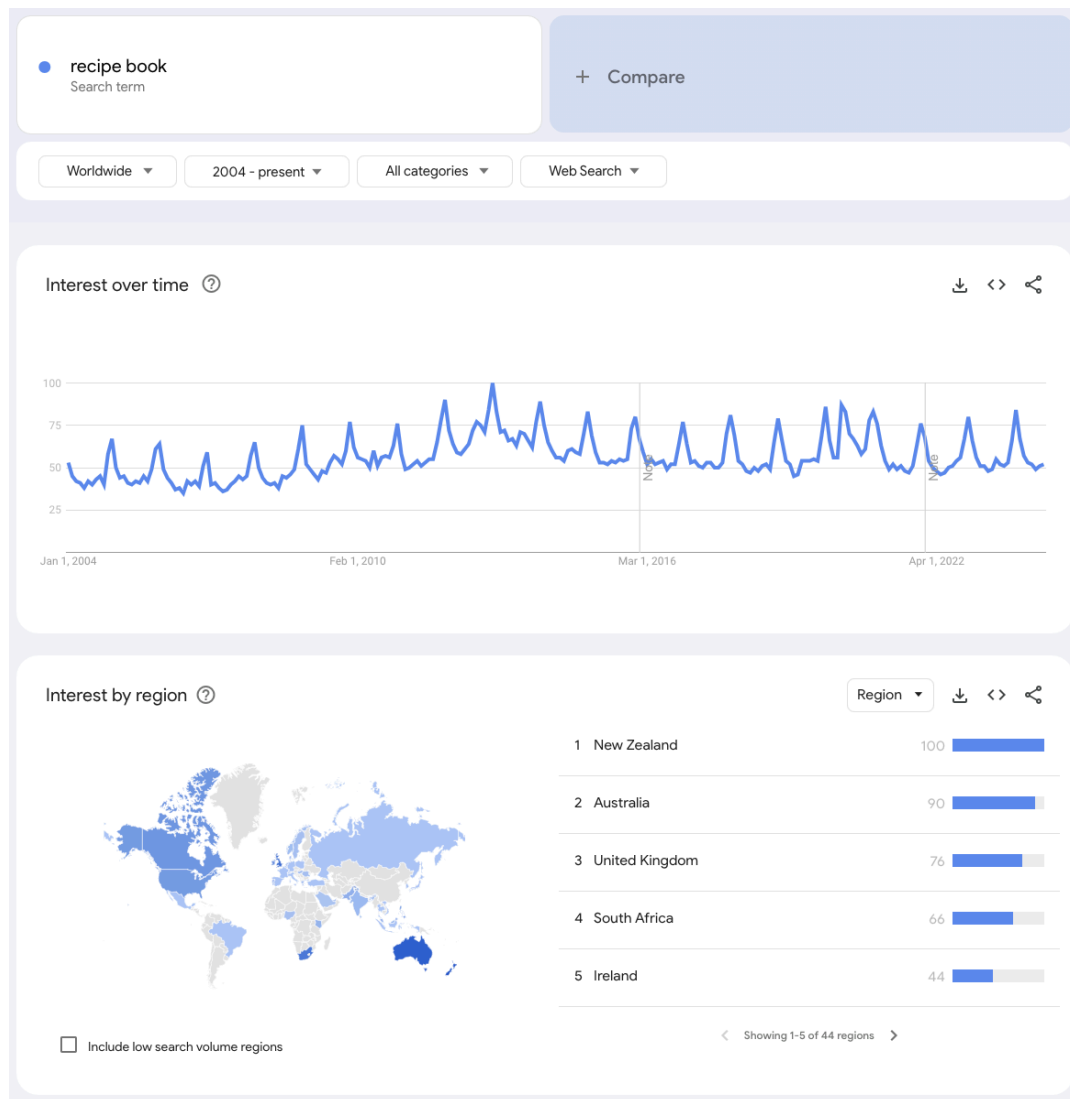
Figure 3. Interest in recipe books according to google trends.