

# COSC 343 Assignment 1

## Group Introduction

In our group we have Ariana Van Lilith, Cordell O'Leary, Derek Moerdyk, and Conor Griffiths, we are all majoring in computer science. Cordell and Conor worked together in COSC 326 Effective programming and all four of us demonstrated COMP 161, and now demonstrate COMP 162 together so we knew we worked well together. During last semester we all discussed taking this paper and decided that we would be well suited to becoming a group as we already spend a great deal of time together and down time during lab sessions would be ideal for collaborating and getting some extra work done.

Each of us has taken our own path through the degree so far and so each brings specific skills to this project. Conor has worked on a larger project before in the game design paper and also experimented with kotlin for some effective programming etudes. Derek brings his expertise in data science and his positive attitude will help keep spirits high. With a love of the arts he will help with product design and visualising our final concept. Cordell brings his knowledge of software engineering from the info 201/202 papers as well as his interest in cooking new recipes. Ariana brings her expertise with software project management learnt during INFO310 and also brings diversity into the group, keeping to the theme, by being the only female.

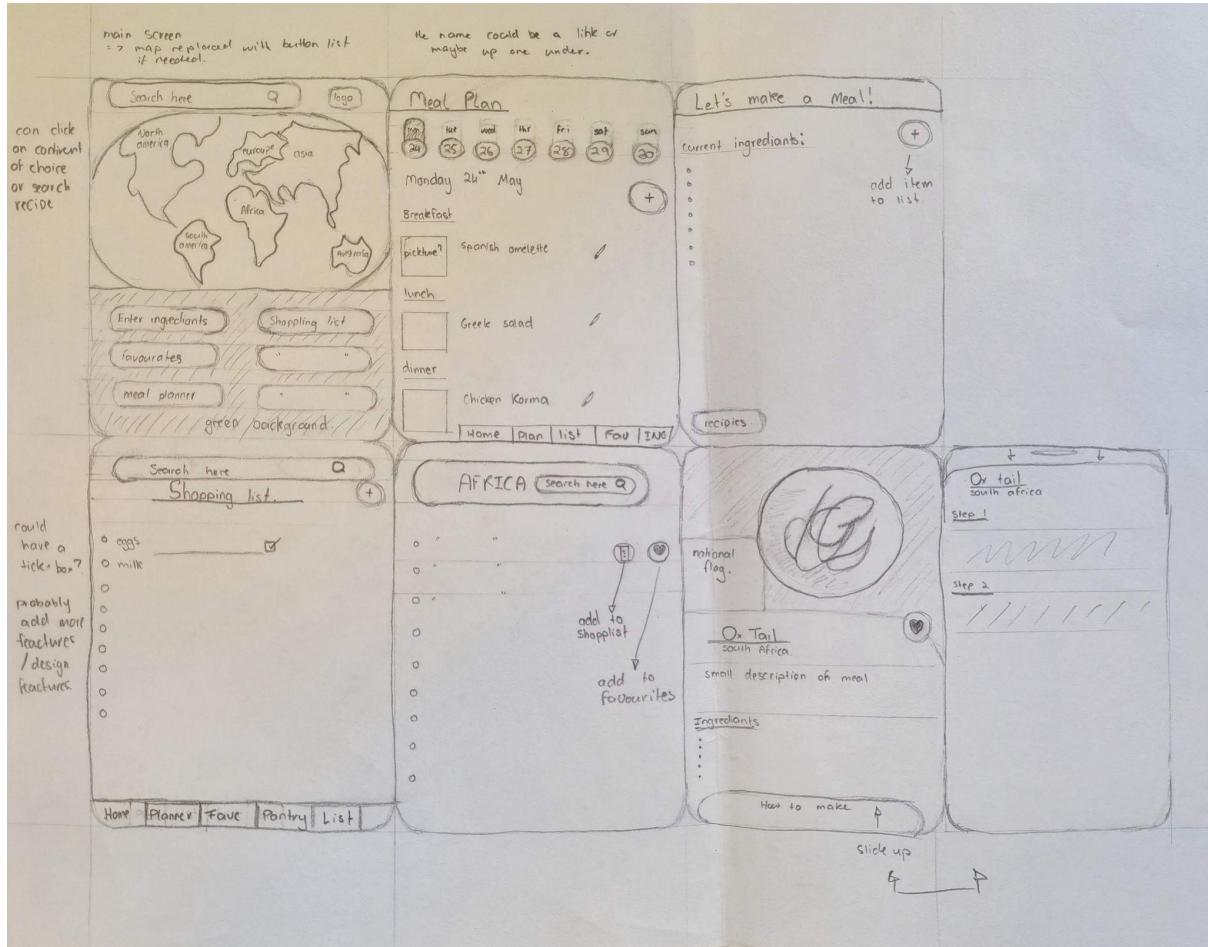
## What we're going to build

Our app's primary goal is to provide a curated list of recipes to users looking to expand their cooking to dishes from cultures they may not have tried before. The primary way to browse recipes will be through the user selecting staples they already have on hand and they will be provided with a variety of options to choose from which all incorporate food they already have on hand. Alternatively users can browse by continent to see both what dishes are common in different parts of the globe and also to discover new things to cook. Once a user selects a recipe they can simply view it or add it to their meal plan and shopping list or select add to favourites so they can access them easily without having to search for them again.

We intend to keep the back end of this project as simple as possible. Recipes will be stored in a local JSON file and will be strictly curated. We will spend the beginning stages of the project finding and collating recipes we have the rights to use for this purpose, generally recipes themselves are not protected by copyright law but the expression of those recipes can be so this is a topic we will need to tread carefully around.

An app like this needs to be simple and intuitive to navigate by someone just wanting to find out what to cook. For this reason UI design is a primary focus for us. Our primary

navigation scheme will be a bottom nav bar to switch between the different sections of the app. Within each section will be a clear and minimal UI presenting only the information which is necessary to the user. See prototype sketches below.



These sketches show the main views our app will contain. The primary navigation will be at the bottom to switch between "Recipe" view, "Meal Plan" view and "Shopping List" view. These views will be self contained and serve specific individual functions to keep navigation simple.

Must Haves	Nice to haves
Recipes based on continent	Display saved recipes in an easy to access way
Filter by staples you already have on hand	Weekly meal planner
Generate shopping list based on chosen recipes	Cost per dish
Have cultural information about each recipe category	

**Release schedule:**

**(26th Aug) Alpha:** Filter by staples you already have on hand, Database of recipes (Doesn't have to be complete)

**(16th Sep) Beta:** Generate shopping list based on chosen recipes, Recipes based on continent

**(7th Oct) Release:** Have cultural information about each recipe category

How We're Going to Build It

As a short term development project, to keep in line with our deadlines we must adopt an agile bottom up approach, however if we were only doing this it would be difficult to visualise the end product and we would need to constantly refactor to keep our implementations in line with our adapting vision. This would produce a significant amount of "tech dept". With this in mind the best approach is to implement elements of the top-down Waterfall development technique . Keeping the finished product in mind we will first build a solid and achievable plan with set milestone dates before beginning development in earnest.

We will start from both ends completing the higher level ideas and designs first before working up from the bottom, hopefully allowing us to prevent mistakes and bottlenecks before they happen and turn into technical debt.

We will manage team member tasks in Trello and keep track of areas where we have made up time and any areas which are behind and may need to be either shrunk in

scope or prioritised over other features. This will prevent last minute surprises where work needs to stop until an earlier task is complete. We have also made a detailed gantt chart and attached this at the bottom of the document.

### What's Similar & What Makes Ours Different

"SuperCook Recipe By Ingredient" SuperCook is an app/website that does exactly what we are trying to do but with a greater selection of ingredients and recipes. I think the main problem with this app is the huge selection of ingredients you can select with roughly 900+ options. This can be a pain trying to select all the ingredients you have and even harder trying to maintain that. Due to the huge selection of ingredients there is an equally large database of recipes of about 100,000+ with some of the recipes being super basic e.g eggs on toast. Our app is going to differ because we will have a more refined and smaller curated selection of recipes with a small subset of ingredients so as to not over complicate things.

"Yummly Recipes & Cooking Tools" Yummly is an app similar to our idea but is more focused around creating a meal plan and shopping list from recipes you select rather than taking into account what ingredients you currently have. The main difference between Yummly and our app is we are more focused on what you can make with the ingredients you currently have as well as displaying recipes that are missing 1 or 2 ingredients.

"<https://myfridgefood.com/>" My Fridge food is a basic website with simple recipe searching based on a small set of ingredients. The recipes are sourced from the users and not the developers. A big difference between our app and this website is that our app will dynamically create a shopping list for the user if they were to select a recipe that they don't have all the ingredients for but want to make.

### Target Market & Why Target Market Wants our App

We are specialising our target market towards two similar groups; young adults who have just left home and are living in a flat where they have shared meals and young families that require quick and easy meals proficient to feed 4 persons, but are also unique and diverse to keep meals interesting and enjoyable. Both of these target markets will, as a majority, have a low income and a small amount of experience with cooking. They will want easy and quick meals that do not require sophisticated or expensive ingredients but will still keep their flatmates or family happy and satisfied. We

will therefore focus on recipes that include staple ingredients that most young adults will have a likelihood of already having in their cupboards or can get without much hassle or cost from their local supermarket. The recipes will also be diverse enough to help keep the meals interesting and enjoyable without the added effort of complicated instructions and ingredients.

Our app benefits students the most especially in these tough times with everyday expenses and the average cost of living increasing so dramatically over the past few years. A recent study by the green party showed that 54% of a students average weekly salary goes just towards rent and even worse about two thirds of students regularly didn't have enough money to afford food, bills and get health care for themselves when sick. There are many more points made in this study so instead of bullet pointing them all out we have supplied a link to read. The point is even if our app can help save \$20 a week towards groceries and maybe in the long run help send less money on takeaways with gaining more knowledge of affording eating habits then we feel like our app is a great success.

When it comes to young adults there has been a great increase in weekly cook your own meal kits such as hello fresh and my food bag, just have a look at our flats, four of derek's flatmates have signed up to hello fresh this year and the main reason for it was because the wished to cook their own meals but didn't have the knowledge to do this on their own. This shows that there is a big demand of young adults that truly wish to save money by cooking for themselves but need help to not only learn cooking skills but also help to plan a weekly cooking routine. We feel like our app can help with both those demands.

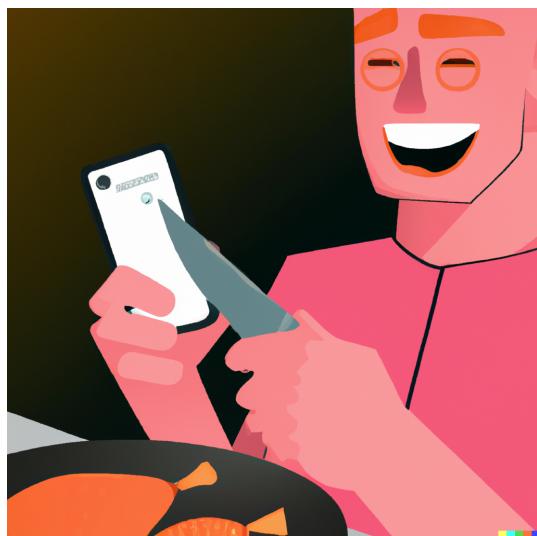
There are many popular apps currently on the App store that show evidence that there is interest for our app in our target market. Applications like Yummly Recipes & Cooking Tools, as mentioned above, is currently no.59 in the food and drink chart in the app store. SuperCook Recipe By Ingredient, also mentioned above, is no.15 in the food and drink. Both these apps have a lot of the same functionalities as the app we are going to create.

We have decided to prove this app is wanted by our target audience by taking advantage of our demonstrating roles and asking our students whether they would want something like this and what else would they want to make it more appealing to them. We have had a better response from the useless young male students who have never taken the time to try and learn to cook tasty and cheaper options for themselves since leaving the nest, instead eating two minute noodles, the same tomato pasta and fast food too often then they should and mostly every student has admitted to actually

never using a shopping list once when going to the supermarket which is proven to help save money. Here is a link to a show how shopping lists can save you money by keeping the shopper focused on the target and to help being influenced by all the stands pushing you to spend more money at the supermarket.

## Appendix

In addition to sketching out our idea of what the final app would look like we also used DALL-E 2 to generate some possible layouts we could adapt. The rights to these images are not restricted so we could use them in our final product if we wished to. We will continue to consider whether portions of our app could be created with AI as an aid to help with working to our accelerated time frame.

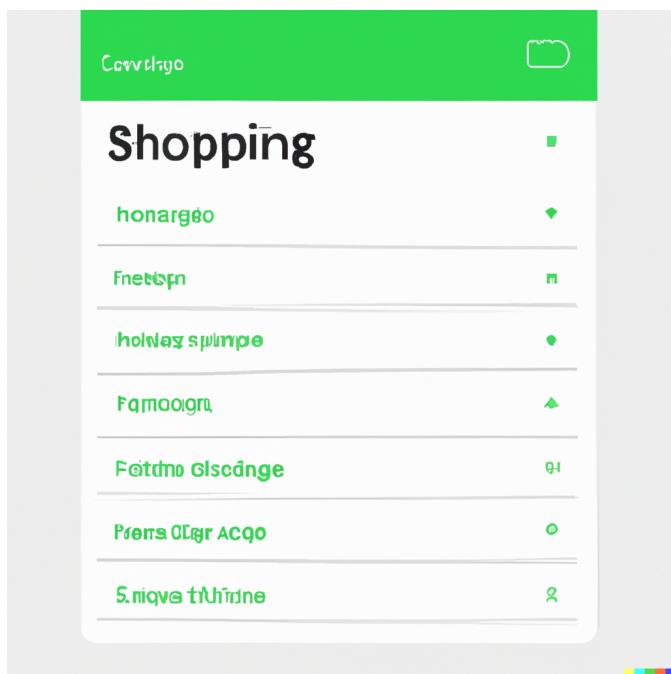


## Recper eiche



## Rele Clpp





## References

<https://www.rnz.co.nz/news/political/471144/tertiary-students-spend-more-than-half-of-income-on-rent-survey>

<https://www.psychologytoday.com/us/blog/financial-matters/202110/why-you-should-write-shopping-list>

