SynTechnologies

Our IT Project

ChefMate

Assignment 3, Introduction to IT

By Group 1:

Natalie Yelland-Hall, Michael Seach,

Jae Sung Oh, Phuong Quach,

Luke Green and Bobbie Cole

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Team Profile

About Us

SynTechnologies was founded by a leading think-tank team of application experts, dedicated to revolutionizing home cooking. Our latest smartphone application Chef Mate! scans your refrigerator and pantry to identify and itemize ingredients to design meals with the available ingredients and generate quick and easy recipes to suit cooks at all skill levels.

For more information, visit our website and GitHub repository below:

Website: https://syntechnologies.github.io/

GitHub Repository: https://github.com/syntechnologies/syntechnologies.github.io

Our Team

Natalie Yelland-Hall (s3804985)

My name is Natalie, I am 25 years old and studying IT at RMIT University. I love reading and video games and relaxing with all my pets. I live in country Victoria on a farm with my boyfriend and his family. I grew up in North Melbourne with my family. I have always been interested in and enjoyed IT as it is a subject that has always fascinated me, I have many memories of putting together PC's out of spare and hand me down parts and playing games with friends. I would love to find a career in cyber security or programming someday.

Michael Seach (s3805363)

My Name is Michael, I am 28 years old, and I live in Sydney with my wife Mao. I work in a bike shop, filling a sales and mechanical role all in one, as well as managing the online store-fronts. I have always loved IT ever since high school, teaching myself various subjects over the years, though have not had the opportunity to work in this field. My experience includes 3D modeling and animation, audio recording and editing, web design and building custom systems as a hobby. I am studying at RMIT to expand my future career opportunities, with hopes that this will allow my wife and I the option to move (back) to Japan in the future

Jae Sung Oh (s3807452)

My name is Jae Sung Oh, I originate from Korea, and came to Australia at the age of 2. I love computer games from a variety of different genres, mainly RTS, FPS, and MMORPG. I enjoy playing football (soccer) and of course, like most other millenials – bingeing on Netflix. I have minimal IT experience, but keen to learn about it all. I am particularly interested in AI and game development.

Phuong Quach (S3807136)

My name is Phuong Quach, I currently live in Melbourne with my three pugs, three cats and fish. I was born and raised in Australia, though my family is from China and Vietnam. My hobbies include gaming, makeup and travelling. My passion includes animal rescue (it is the main reason I have so many pets, and considered a "foster fail"). I currently work in the finance department of a professional services firm in the financial an services industry. My interest in IT developed from my love of video games as it was my escape from reality and platform enabling me to hang out and catch up with my friends. The areas of IT that interest me are VR, AR, robotics and AI, and I hope to one day work within one of these fields. I do not have any professional experience in IT apart from being your "average user", so I am excited to see where this journey takes me.

Luke Green (s3805948)

My name is Luke, I live in Perth with my wife and 2-year-old daughter Evie. When not spending time with my family, I enjoy video games, mainly on PC (MoBA, FPS, RPG and BR). I have varied and broad interests in IT, but Autonomous Mining and Programming has always piqued my curiosity. My experience includes 5 years in IS support and building custom PC's on the side.

Bobbie Cole (s3799258)

My name is Bobbie, I am 29 and live on the Gold Coast QLD, with my husband, brother and our three furbabies. My hobbies include cooking, drinking wine, socializing and hardstyle dance (hard EDM) music events and festivals. I am an operations manager for an International Franchise Group, ensuring strategies are affectively implemented across the organization. I have always been intrigued by IT and advancements in technology, and the limitless possibilities and applications it presents in all aspects of business and in our everyday lives. I am studying my bachelor of IT through RMIT to gain the knowledge and expertise to develop innovative business and support strategies and applications, and to be able to apply these effectively across business functions.

Group Processes

During A2 our group worked together well using Discord as our main communication tool. Team meetings were held to discuss who was working on each task and what needed to be expanded upon to meed the assignments criteria. Outside of the meetings, the messenger feature in Discord was used to relay messages to the team members to keep in contact and to keep track of progress. GitHub was used to upload each team members contribution and was then condensed into one pdf after all parts were submitted.

For A3 our team decided to increase the number of meetings as more planning was needed for the different areas and the presentation. Discord was still the main form of communication and GitHub was used for submissions and version control.

Career Plans

The career plans of all the members of our group share a common starting point: completing a degree and/or other qualifications. Additionally, all our ideal jobs are on a relatively senior level and thus requires at least 3-5 years of experience in the field. Therefore, after undertaking the core education required, we would all proceed to enter the industry as soon as possible to gain some experience. However, it should be noted that anywhere along the journey to our ideal jobs, further education or additional courses will aid us. For instance, we can all take numerous free online courses like Udacity CS101 or watch YouTube tutorials to refine our understanding of the content learned in our degrees.

The main differences between our career paths lie in the respective field itself. Although our ideal jobs are all related to IT, they are unique and possess distinct traits from one another. For instance, a back-end developer and a VR developer are both within the IT industry but specialises in very different things. A back-end developer is primarily concerned in managing a hosting environment for websites whereas a VR developer is focused on the development of virtual reality that could be used for simulations.

Project Plan: Chef Mate!

Description/Topic

Chef Mate! is designed to be <u>THE</u> go-to recipe app for those that are interested to cook at home, no matter the skill level. What makes Chef Mate! different is the user can take photos of the contents within their fridge, freezer and/or pantry, and the app will identify what ingredients they have on hand and match the user with recipes available based on their preferences. Noticeably, our app is big on ingredient substitution and creativity to ensure a high percentage of users can create a meal at home. In built kitchen tools to assist with meal preparation will be included. Such tools include measurements, weight, unit conversions and timer. While cooking, you will be able to cross of ingredients and steps as you go.

As expected, users will also have access to a database (which may be integrated with other recipe websites) containing recipes created by nutritionists, professional chefs and other users. Users can search recipes or ingredients they like and view other recipes that are similar. All recipes will include nutritional information. There will also be a meal planning feature where users can look up recipes, select the desired portions and the app will create a shopping list on their behalf, which has the potential to significantly reduce costs and food wastage as users will be buying ingredients in bulk. The app can also be linked to google home where users can add or change items to their shopping list with ease and set up auto reordering with major supermarkets. Diet plans will also be available, and users will be able to visualise their progress by tracking their eating and drinking habits via a food diary. There will also be a social network aspect where users can share their cooking experience, recipes, meal photos and shopping lists with other users.

As you can see, Chef Mate! will incorporate all the necessary features currently on the market but has gone through innovation to include additional features to make it unique and exceed expectations. Chef Mate! can easily be downloaded onto any smartphone or tablet.

Motivation

Our lives have become easier through the advancement of technology and we cannot deny that there has been an increase reliance of app use for day to day functions. While there are other recipe apps available, as a society we will always want more and crave for an easier and faster alternative.

For those interested in cooking at home, how many of us contribute to wastage by throwing out ingredients? How many of us get overwhelmed in the kitchen and settle for takeaway, fast food or ordering Uber Eats? How many of us feel disappointed after trying to follow a recipe to discover later that you can't finish the recipe anyways?

Cooking is part of our daily life and Chef Mate! makes finding recipes easier as everything is in one centralised place. SynTechnologies has identified a gap in the market as other similar apps do not consider what ingredients the users have at home without them listing each ingredient individually (annoying and time consuming). We believe the enhanced features in Chef Mate! encourages more people to cook at home and provides a solution for those who are conscious of their finances, environment and health by making cooking simpler, thus saving time, money and decreasing food wastage.

Mock-ups
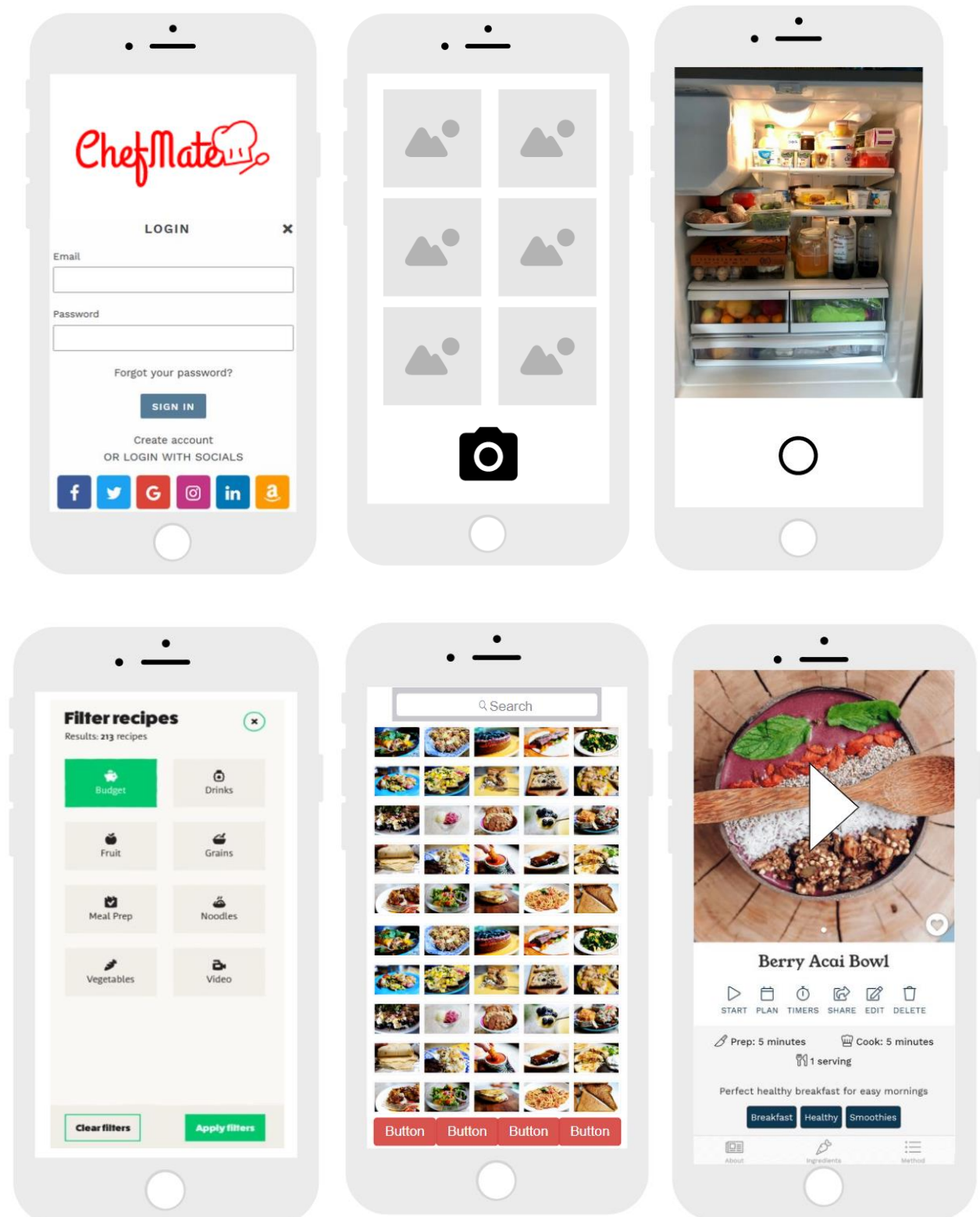
Landscape

There are many apps and websites that currently offer recipe databases for users, and quite a few offer the same features as us. Notable competitors include the following:

Yummly remember your previous searches and favourites and learn from them, offering a more personalised experience. Its feature take into account food allergies or intolerances and the results either avoid certain foods or offer substitutes.

SuperCook website requires users to select ingredients they have on hand from several categories and the site suggests recipes. Users are also able to save favourite ingredients and recipes on their profile. As it is a website, users must be connected to the web.

Allrecipes Dinner Spinner is available on multiple devices. Users can look up recipes by browsing through categories or ingredients. Users can select to omit ingredients from the results and the app will not display any recipes containing that ingredient.

BigOven has a feature called "Use Up Leftovers" and has a database dedicated to reusing ingredients. Majority of their recipes promote healthy eating and all come with nutritional data. They have a grocery list section to allow users to keep track of ingredients they need for their favourite meals.

Epicurious features finished meals and instructional videos to guide users for the majority of their recipes. The app also included a kitchen timer and a tool that helps user source local seasonal ingredients.

Cookpad has a recipe database and a social platform. Users are able to share recipes, follow each other. The app is available in other languages as well.

Tasty is well known for its basic recipes and easy to follow video guides. Once users find a recipe they wish to make, the recipe video plays. They have a large social media presence and regularly post.

Despite the above, we are still able to differentiate ourselves from our competitors due to the photo recognition software that we plan to implement, which will streamline the process of selecting a recipe based on a photo of ingredients. Our app also considers the majority of the features that are attractive to users and combine them into a centralised location. SynTechnologies believe once Chef Mate! enters the market, we will be able to quickly establish and grow our market share.

Aims

The main aim for our first release is to encourage more people to cook at home through the help of a cost-efficient recipe app. The app will guide the user on meal preparation based on ingredients they have currently available to them and their preferences. The app will assist consumers to save time, money, help the environment by decreasing food wastage and promote healthy eating. Based on our aim, we have identified the most important goals to achieve below for first release.

Have a decent number of recipes available on app.

Specific	Have 100 Chef Mate! healthy recipes that caters to dietary restrictions and takes less than 30 minutes to make for first release.
Measurable	Aiming for 10 recipes per week, tasted by human testers. The 100 recipes will need to cover the following diets – vegetarian, vegan, keto, gluten free, dairy free, low carb – in relatively equal amounts.
Attainable	SynTechnologies will work with nutritionists and chefs to create these recipes for Chef Mate!
Relevant	It is important for us to have a significant number of recipes available that were created by Chef Mate! specifically as we do not want to confuse our audience with other large recipe databases, especially on first release. Concentrating on a 30 minute timeframe to emphasise convenience.
Timebound	By first app release.

Get our brand and product out there and build up hype.

Specific	Increase brand awareness through social media marketing, influencers and endorsements.
Measurable	Follower count and engagement increasing by 10% per month. Utilise analytic and insight tools on Facebook, Instagram and Twitter to track progress.
Attainable	Social media platforms are free to use and we can drive engagement through contests, ads and call to action posts.
Relevant	We believe a strong online presence is essential for a successful first launch. With many people using social media to stay connected and share information, these platforms are very important to assist with driving brand awareness and promoting our product. Also, working with influencers and endorsers will potentially increase this further through exposure and build up hype, taking attention away from our competitors.
Timebound	By first app release.

Obtain sponsorships and affiliate partners.

Specific	Obtain sponsorship and affiliations with farmer markets and major supermarkets in Australia.
Measurable	Obtain sponsorship with 3 major supermarkets, and 1 farmer market in each state.
Attainable	SynTechnologies will need to create a prototype and presentation to showcase Chef Mate! at meetings and highlight the value they will receive for partnering up with us.
Relevant	Sponsorships and affiliates are required to help finance the project and obtaining their support increases our reach, credibility and boosts our image as they can assist with marketing on a larger scale. Furthermore, being sponsored by the major supermarkets will differentiate Chef Mate! from our competitors and possibly generate new leads.
Timebound	Before first app release.

Reach a target download amount to gather data and feedback.

Specific	Upon first version release to the public, reach 100,000 downloads in six months.
Measurable	We will be closely monitoring feedback and downloads over a six month period, aiming for 17,000 downloads per month.
Attainable	Through marketing campaigns (ourselves) and our partners and sponsors.
Relevant	This goal is necessary to collect a decent amount of data and feedback from users whereby the information is used to further improve our app design and features, plus provide a valuable data to our sponsors and affiliates regarding what products users are purchasing (since it is most likely users will be purchasing ingredients through them).
Timebound	Next quarter after first release.

Build a prototype app

Specific	Build a functional prototype which includes the main must have features.
Measurable	App building and design will need to be broken down into stages and be closely monitored on weekly basis to ensure we are on track.
Attainable	SynTechnologies will need to work with designers and developers to create the prototype.
Relevant	We believe it is important to have something tangible for our stakeholders to assess the quality of the app. The prototype can be used to gather data from focus groups to compare our app to the other similar apps currently on the market. This will assist in potential download growth and help us refine our app for first release.
Timebound	By next quarter

Plans & Progress

Tasks	Priority Status	Progress
Initiation		
Brainstorm ideas for app	High	Completed
Research similar apps currently on the market	High	Completed
Gather user feedback data to ascertain what users like/dislike	High	Completed
Meeting to discuss features to include in app	High	Completed
Identify selling app feature	Medium	Completed
Research technology currently available	Medium	Completed
Research costs involved in creating an app	High	Completed
Brainstorm app name, logo design and pick brand colours	Low	Completed
Team name	Low	Completed
Identify roles and skills required	Medium	Completed

The idea for Chef Mate! came from a member who complained a lot about cooking and wanted to innovate what is currently on the market to resolve her frustrations. She wanted one app that combined all the necessary features that she likes and included a desired feature that would make Chef Mate! unique. From there, Chef Mate! was further refined as a group to make this idea real one day hopefully.

Creating an app for our first project is the most idealistic approach considering the generation now wants everything instantaneously. Speaking monetarily, we do not need to concern ourselves with inventory and ongoing costs such as storage because we are providing a service instead of a good. In Deloitte's Mobile Consumer 2018 Survey, 9 out of 10 Australian's own a smartphone with the market dominated by Apple and Samsung. In Deloitte's Mobile Consumer 2018 Survey, 9 out of 10 Australian's own a smartphone with the market dominated by Apple and Samsung. The report also revealed that Australia's smartphone penetration level sits at 89%, increasing from 88% in 2017 and 84% in 2016. Mobile apps use has become so ingrained in society that according to Statista, the number of mobile app downloads worldwide in 2017 was approximately 178.1 billion, and this number is expected to grow to approximately 258.2 billion in 2022. The revenue for mobile apps in 2019 was around 462 billion USD.

Through group discussions, we have determined that the app would need to be compatible on both iOS and android platforms to ensure a broad reach, integrated with social media for login, include personal profiles for a personalised experience, add in-app purchases to provide a steady revenue stream for SynTechnologies and a simple ranking system for users. At this stage we do not require the app to connect with our website, but the app design would need to include custom gestures, button and transitions instead of stock with a custom-designed app icon. According to an app estimation calculator, it would cost approximately $85,000.00 to produce such app internally. Alternatively, we can outsource the app design to GoodBarber which in line will be more efficient for ongoing cost. At this stage, deciding whether to build the app in house or outsource it is still under discussion. In either event, we have idenitifed that we do require the skills of a professional graphic designer and developer.

Tasks	Priority Status	Progress
Planning		
Allocate tasks for project	High	Completed
Identify core functions to make app functional for initial release	High	Completed
Meeting to discuss initial dietary restriction groups to focus on intially	Low	Completed
Discussion regarding app integration	Low	In Prog
Prepare job descriptions	Medium	Completed
Identify risks	Medium	Completed
Research popular recipes (most viewed, highest ratings)	Low	Not Started
Identify chefs and nutrionists to work with	Low	Not Started

Tasks	Priority Status	Progress
Narrow down 100 Chef Mate! Recipes	Low	Not Started
Discussion regarding focus groups for testing	Medium	Completed
App content creation	Low	Not Started
Work with videographer to meal guide videos for app	Low	Not Started
Professional photos of meals for app	Low	Not Started
Set up social media accounts	Low	Not Started
Incorporate SEOs and adwords	Low	Not Started
Idenitify best method of social media marketing and marketing campaign	Low	Not Started
Identify which influencers to work with	Low	Not Started
Meeting regarding posting content on social media accounts	Low	Not Started
Prepare Chef Mate! presentation	High	Completed
Prepare Chef Mate! video	High	Completed

Our group has decided to utilise social media platforms as our primary marketing tool. However, upon further discussion, it is our opinion that we employ the services of a marketing manager to take care of the marketing on our behalf as it is the most convenient and cost effective route.

Additionally, the team has not finalised discussions regarding app integration. Our primary concern is the recipe database and how much the app is to utilise another provider's resources. If the app opts to use recipes provided by other companies, the company risks confusing our users who may not be able to find a distinction between our product and what is currently on the market. Additionally, the team needs to consider the ongoing costs and legalities of utilising another company's resources. In order to avoid this, the team has decided that Chef Mate! does need its own recipes which will be focused on in primary marketing campaigns.

App Design

Tasks	Priority Status	Progress
Meeting to identify if app should be outsourced or completed internally	High	In Prog
App model design and layout	Medium	In Prog
Create mockups	Medium	Completed
Features inclusion and core functions	High	In Prog
Inetegration with popular recipe databases	High	On Hold
Wireframes	High	On Hold
Rediscussions regarding features and app layout	High	On Hold
Develop prototype	High	On Hold
Conduct testing and gather feedback	Medium	On Hold
Implement changes	High	On Hold
Conduct testing to a focus group and gather feedback	High	On Hold
Implement necessary changes	High	On Hold

Tasks	Priority Status	Progress

Upon further research regarding the ingredient recognition technology, features for our initial release had to be changed. Facebook Artificial Intelligence Research (FAIR) has developed technology using AI whereby it identifies ingredients used to make the meal based on a photo. Additionally, MIT also developed something similar but their technology worked best on desserts. Unfortunately, this technology is not made available to the public as of yet but there is a high possibility where it will be made available soon. We envision that this technology could be reconfigured in the near future to be applied to our app where it can identify recipes available to users based on pictures of ingredients. However, more research would then need to be conducted regarding copyright and licencing.

Milestones

Task	Priority	Progress
Project plan	High	Completed
App name logo design	High	Completed
Chef Mate! presentation and video	High	Completed

Next Steps

Task	Priority	Progress
Keep track of development of AI food recognition technology	High	Not Started
Approach PR representatives of each major super market chain	Medium	Not Started
Approach management of farmer markets	Medium	Not Started
Discuss with a legal team regarding contracts	High	Not Started
Monitor growth of social media accounts	Medium	Not Started
Ensure all app content is above ground	Medium	Not Started
Launch app on app stores	Low	Not Started
Generate reports and track downloads	Low	Not Started
Gather user feedback data	Low	Not Started
Improve app with user feedback	Low	Not Started
Identify marketing strategies that are strong and which ones are weak	Low	Not Started
Regular meetings with our partners to discuss app marketing	Low	Not Started

In conclusion, while we have made progress on our project idea and the initiation phase is complete, the team was unable to carry out the majority of the tasks in the planning phase, including the app design phase which had to be put on hold. This is due to cost constraints and awaiting the technology for our main selling feature to be further developed and made available. However, all our main milestones were achieved in the time given. Once this hurdle has been overcome and through the development of a prototype, the team will be able to approach our sponsors and affiliates to gain financial leverage to adapt our app fully. After launch it is also imperative that the team monitors user feedback closely for further development and improvements.

Roles

User Interface Designer

A User Interface Designer is required to develop the applications user interface to ensure maximum usability and optimise user experience.

Graphic Artist/Designer

A graphic artist will be required to design all logos, advertising and marketing material, as well as the apps design.

Lead App Developer

The lead app developer would be responsible for directing the development team in design, development, coding, testing and debugging. They would also coordinate the development schedules and ensure effective communication between team members and other non-IT departments. They would also provide feedback and suggestions for process and product improvement as a technical adviser.

Programmer

The programmer will design and develop all the backend coding for the application, working closely with the user interface designer and other team members to ensure all aspects work cohesively together.

Nutritionist

Provide advice on all the possible dietary and allergen preferences that will need to be within the selection options e.g.,

Dietary: Heart-smart, vegetarian, vegan, paleo, low-carb, blood-type, Diabetes Friendly

Allergen: Wheat, gluten, dairy, fish, shellfish, nuts, eggs,

Research upcoming diet trends to ensure a competitive advantage over potential competitors in the same space for example: Paleo, Atkins/low carb – when these diets first became popular.

Celebrity Chef / Endorser

To not only aid in overall brand awareness and promotion, but to also create a 'recipe of the week' and/or provide weekly cooking tips and hints, as well as a weekly video to keep users engaged with the brand – even when they may not need it.

Marketing Manager

Design and Develop the Marketing Plan and advertising strategy for the company as well as implement such plans.

Strategy Manager

Develop and negotiate strategic alliances with recipe websites i.e., taste.com.au to be able to integrate and pull recipes from their site.

Develop and negotiate terms and contracts with celebrity chef's and endorsers.

Develop and negotiate terms and contracts with televised cooking shows to maximise exposure through above the line marketing methods.

Develop and negotiate strategic alliances with government bodies and health organisations, i.e., Heart Foundation, Diabetes, Department of Health.

Scope & Limits

For initial release of our application, basic core functions need to be working;

- Integration with a repository of recipes
- Ability for user to enter/scan ingredients to the app
- Automatic search function based on available ingredients and user preferences

The core functions also allow for better overall usability, especially on the Android platform. Given the number of devices and Android version currently in use, it will be difficult to create an App that useable across all devices with all functions. So, to increase the prospective audience, having a "base" model of the application with a more limited functionality given potential hardware limitations of the user's device, along with the "deluxe" version with all features included for newer and more advanced hardware/software is advantageous.

Updates to be pushed out soon after release would include ingredient detection using Image-Recognition, allowing the user to point their camera at the fridge to add ingredients to their app. Currently this technology is still in development by other companies and we would need to wait/work with them in order to implement it within our app.

Another potential limiting factor would be the willingness of other companies to work with us. Partnering with a company like Taste.com would give us access to a wide range of recipes as well as a direct path to grocery stores with their link to Coles for ingredients. This link could allow the eventual implementation of a auto ordering system for groceries needed for recipes as directed by the user.

Tools & Technologies

Hardware and software requirements:

Desktop or laptop computer with mid to high level components. For computers used by coders, a dedicated graphics card is not required. A fast CPU, i5/i7 or Ryzen 7/9, with at least 16gb RAM is preferable as the IDE can be system intensive at times. The Integrated Development Environments that will be used are Android Studio and SDK (Ver 3.4.2), which will run on Windows operating System, and Xcode for iOS development (Ver 10.3), which runs on macOS. To prevent the need for different operating systems within the organization, macOS will be run on a virtual machine using Oracle VM VirtualBox (ver 6.0). This software is free to use, even the enterprise edition. Version control will be handled by GitHub, with both IDEs able to interact directly with Git repositories, with a license fee per active user for enterprise use.

Testing

Both IDEs have built in emulators to ensure the application runs on the intended devices. This along with an invite/closed alpha/beta testing program will allows us to polish out as many bugs as possible before general release. The number of candidates for the alpha/beta program would be decided by the popularity of the product (when looking for testers) and the amount of staff able to process bug reports and user feedback. A manageable number, such as 50-100 users is probably well within the capabilities for our company.

Test users would be chosen based on a few questions:

- Age range
- Live alone or in a family/group situation.
- Current device in use
- If they cook enough times in a week.
- Technical/computer knowledge

This will allow us to gather feedback from a large variety of the population, we've left gender out as a question to avoid SJW numpties and the "REEEEEEES" it would result in.

Timeframe

Tasks	Weeks														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Brainstorm ideas for app	█														
Research similar apps currently on the market	█														
Gather user feedback data to ascertain what users like/dislike		█													
Meeting to discuss features to include in app		█													
Identify selling app feature	█														
Research technology currently available		█													
Research costs involved in creating an app		█													
Brainstorm app name, logo design and pick brand colours		█													
Team name	█														
Identify roles and skills required		█													
Allocate tasks for project			█												
Identify core functions to make app functional for initial release			█												
Meeting to discuss initial dietary restriction groups to focus on intially			█												
Discussion regarding app integration			█												
Prepare job descriptions				█											
Identify risks				█											
Research popular recipes (most viewed, highest ratings)			█												
Identify chefs and nutrionists to work with				█											
Narrow down 100 Chef Mate! Recipes															
Discussion regarding focus groups for testing				█											
App content creation															█
Work with videographer to meal guide videos for app															
Professional photos of meals for app															
Set up social media accounts					█										
Incorporate SEOs and adwords					█										
Idenitify best method of social media marketing and marketing campaign					█										
Identify which influencers to work with					█										
Meeting regarding posting content on social media accounts					█										
Prepare Chef Mate! presentation						█									
Prepare Chef Mate! video						█									
Meeting to identify if app should be outsourced or completed internally		█													
App model design and layout							█	█	█	█					
Create mockups						█									

Tasks	Weeks														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Features inclusion and core functions											■	■			
Inetegration with popular recipe databases											■	■			
Wireframes													■	■	
Rediscussions regarding features and app layout															■
Develop prototype															
Conduct testing and gather feedback															
Implement changes															
Conduct testing to a focus group and gather feedback															
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Gather user feedback data															
Improve app with user feedback															
Identify marketing strategies that are strong and which ones are weak															
Regular meetings with our partners to discuss app marketing															

Not possible in 15 weeks

Completed

In progress
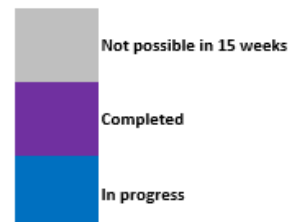
Risks

Overview

- Practicality
- Intellectual Property
- Application Limitations
- Business Partnerships

Practicality

The app's utility comes from its ability to photograph the contents of a user's fridge and then proceeding to generate recipes based on the ingredients available. Therefore, the photographing function must be very accurate and technically sophisticated to yield the most relevant results. However, the app may not be able to correctly identify ingredients if the fridge is packed: some ingredients may be partially or completely hidden from the camera's shot. The exclusion of a certain ingredient can dampen the user's experience.

Solution

A simple but laborious solution would require the user to lay out the contents of their fridge, but this will be greatly inconvenient and contradicts the underlying principles of the app's simplicity and convenience.

Intellectual Property

Numerous nutritionists, chefs, and other users contribute to the app's essential database of recipes but involving so many different parties can potentially have intellectual property issues. For instance, the similarity between two recipes can cause some friction between users, or even a user and a non-user, each claiming their personal ownership of that recipe. The app currently does not have a verification function to certify the originality of a user's recipe and consequently does not address this issue.

Additionally, the global outreach of the app can also bring forth some legal complications because some countries will have different intellectual property laws. Some may suggest the reliance on the interpretations of international law, but the enforcement of it could be quite limited.

Solution

The development team will need to create a function for the app to verify the originality of a user's recipe.

Application Limitations

Some limitations of the app could be present in the form of limited recipe range and variety. Since the app will primarily rely on short descriptions and video explanations, the complexity of a recipe can only match a beginner cook's ability to follow it. Many of the users will most likely be beginner to intermediate level cooks and may lack the fundamental culinary skills necessary to perform some steps of the recipe.

Solution

A system of different cooking levels can be introduced. The levels of beginner, intermediate, and advanced can open a whole new range of recipes, so highly skilled cooks can also enjoy the same benefits as those of beginners.

Business Partnerships

The app's close affiliation with large food retailers, such as Coles and Woolworths, presents a feature that enables the user to order the ingredients required for the desired recipe. Therefore, it is essential that the company successfully forms a strong and enduring partnership with a large food retailer. The failure to do this will greatly limit the convenience and ease-of-use of the app and may cost the app a portion of its userbase.

Solution

The company's management will need to negotiate a partnership with a large food retailer, presenting a convincing argument and profitable arrangement for both parties.

Group Processes & Communications

In the current state of development, discovery meetings would be a regular occurrence, commonly these would take 20+ hours a week. Planning, discussions and ideas would need to be collected to work out what the estimated timeframe is and to delegate jobs to key members to work on. Most commonly these would be done in person or via video conferencing e.g. Skype Business or Microsoft Teams.

Once the project has been fleshed out and an understanding of what needs to be done is understood. Meetings would often become less frequent as the main idea is now in place and people are set to task. Weekly meetings for updates would normally be adequate with correspondence via email. In the programming stage toolbox/stand-up meetings are often held in the mornings to discuss what is being worked on by who and if any help is needed. This can also be done via messenger programs like Skype or Discord.

Skills & Job – Position Descriptions

Graphic Artist/Designer

The Role:

We are looking for a graphic designer to work closely with our marketing manager and lead app developer. You will creatively design the digital graphics specifically for the application as well as all other visual communications for marketing and advertising.

Minimum Qualification: degree qualification with at least three years' experience in a similar role.

Duties and Responsibilities:

- Conceptualising and designing marketing collateral ensuring campaigns are executed across all channels.
- Have exceptional creativity, innovation and imagination with a good eye for detail
- Regularly meeting with key stakeholders and other departments to effectively interpret the concepts they want to communicate and note their requirements
- Preparing layouts and mock-ups of designs using illustration, text, photography, colour and computer generated imagery and animation, using computer software or have the ability to design by hand where necessary

Marketing Manager

The Role:

We are looking for an experienced marketing manager to manage the day-to-day marketing activities of the organisation and the long-term marketing strategy for the company.

Minimum Qualification: Bachelor Degree in Marketing with previous experience in B2C tech/app consumer products.

Duties and Responsibilities:

- Managing all marketing for the company and activities within the marketing department
- Developing the marketing strategy for the company in line with company objectives
- Coordinating marketing campaigns with sales activities
- Overseeing the companies marketing budget
- Coordinating and organising the creation and publication of all marketing material in line with marketing plans
- Planning and implementing promotional campaigns
- Manage and improve lead generation campaigns
- Overall responsibility for brand management and corporate identity
- Working closely with the design team

Lead App Developer

The Role:

For this role you would be responsible for directing the development team in the design, development, coding, testing and debugging of our new application.

Your Qualifications and experience:

- A bachelor's degree in computer science or a related field
- A proven background in applications programming
- Several years of successful leadership
- At least three years of experience with technologies including: Visual Basic .NET, PHP, C#/C++ and Microsoft .NET framework development

Duties and Responsibilities:

- Coordinate staff schedules
- Ensure effective communication between team members as well as other non-IT functions
- Motivate and mentor others
- Work closely with all departments to ensure seamless integration and overall customer satisfaction

Nutritionist

The Role:

An exciting new opportunity to join a high-tech company as a nutritional advisor. We are building a recipe 'app' like no other, and need the expertise of a nutritionist to ensure all dietary and allergen needs are catered too, as well as identifying upcoming diet trends to help sustain a competitive advantage.

You will work closely with the development and marketing team to ensure maximum user customisation across recipe deliverables.

Qualification: This part-time position is open to new graduates or those with experience at a certificate level. A thorough understanding of diet types and diet trends as well as allergens in food is essential for this role.

Reflection

Michael Seach

Another damn assignment almost done eh? Thanks to numerous life issues for most of us, communication was not to the same standard as that of assignment 2. Despite that, it is safe to say that we pull together and get the job done, regardless of what's trying to get in the way. With other members taking over tasks with short notice to help those who've had something else get in the way. Even helping each other in tasks not related to this subject.

Github usage has become better. It was used by limited members in Assignment 2, due to the structure of the assignment. This time around, it has been used to greater effect to keep track of new updates and files. So, despite all the personal dramas, I believe we managed to improve on our ability to work as a team, which is great. Even with less meetings, and relying purely on text messages, it appears we've pulled together yet again to smash another assignment out the park. The only thing I've noticed about groups, is that when everyone is working together and doing all they can, it works regardless of the problems that arise. Safe to say, we killed it yet again.

Natalie Yelland-Hall

Again, the group worked together well. at the beginning we had a voice chat meeting on discord and organized what group member would do each task, some of us teamed up to do larger sections together. We organized things fairly well in the beginning and then continued with regular communication and meetings throughout

Not a whole lot needed to be improved, most of our issues were with making meetings, but they were generally caused to extraneous circumstances like illness or outside commitments like work.

We started organizing ourselves much earlier with this assignment, and it was surprising how much that impacted how the level of work felt, it felt like there was less overall to do, as there was more time to do it in, and less overlap of roles

Again, I see how good communication is one of the most important aspects of group projects and companies in general.

Luke Green

Our group worked well together overall. At the start of the Assignment, the group organised which team member would do each task with some group members teaming up to do areas of the project which needed more attention. The team also communicated more efficiently with meetings and communications, so things were organised a lot earlier in the assignment.

Not a great deal would need to be changed within our group as we communicated well and required material was submitted by team member quite early in the assignment.

I was surprised how much better we communicated as a team and organised ourselves much faster than the previous assignment. The biggest thing I've learnt is that good communication is key for a team to be efficient and effective.

As discussed in assignment two, the GitHub activity log doesn't necessarily reflect how active specific team members are as more uploads were done in bulk by individuals and then occasionally sorted into

the correct areas . Most version control was done on Discord with only the final copys being uploaded to GitHub.

Bobbie Cole

For assignment three, our group was much more organised and had assigned tasks early in the process. The use of discord allowed us to communicate often and efficiently, while sharing ideas and addressing issues as they arose.

Our time management for assignment three could have been improved, though there we're a lot of personal issues that arose for multiple team members, it was great to have a team that we could rely on when we needed them. Overall our organisation was a bit better, but not a lot and could be improved.

My personal skills with using Github can definitely use improvement, so that I can contribute more to our repository (instead of sending word docs in our team chat) I am so thankful to be in a team where other members were experienced in coding!

That every single member of our team contributes and communicates so well, that we get along great and overall work well together. Stick with this group for as many future subjects and assignments as possible! But, to look at joining a group early on, as you will find people with similar motivation to yourself will often do the same.

Jae Sung Oh

The group continued to work well together. Each member did their allocated tasks, and no-one really slacked off. Unfortunately, I believe similar issues we identified before continued to be somewhat of a problem. I don't think communication was as strong and organising a meeting/catch-up was quite difficult because everyone's availability did not quite match up. However, it was quite surprising to see some members still put in a lot of time and effort to complete the assignment despite having to deal with some difficult personal circumstances. I have learned that things do not go perfectly according to plan as things happen in life that you just cannot foresee. I believe that you just must adapt to the situation and give it your best.

Phuong Quach

Overall, our group worked well together. This time we had one person go through the assignment and list down all the tasks required on a spreadsheet. These tasks were then allocated to members to avoid overlap and everyone knows who is responsible for what.

Discord and GitHub again was used to communicate and store group documents. However, I do not agree that the commit trail on GitHub accurately reflects individual commitment. I did not use GitHub at all for this assignment as I opted to complete my work offline instead. However, I did keep in regular contact with the group so the others knew what I was doing and where I was up to. I feel like for this assignment, we did not use GitHub as much compared to the previous assignment.

While the group did implement the feedback provided in assignment 2 (allocating tasks and arranging more meetings), we should have included a process in place to review current tasks which allow for reallocation. I didn't realise the tasks allocated to me made up about 50% of the marks for the entire assignment and caused a lot of stress. Unfortunately, a lot of meetings had to be cancelled as majority of members were experiencing personal issues but they were rarely rescheduled.

My opinion regarding what I found surprising and what I learned about group work has not changed.

Group Reflection

Once again, synergy, flexibility and trust flowed over from the previous assignment. The group was very proactive in establishing tasks, rough deadlines, communication and tools at the beginning, using discord to regularly keep in contact with each other and GitHub as our repository again.

Regarding the activity log of GitHub, the commit trail for our repository provided a quick overview of group activity and but it does now accurately reflect individual commitment. Compared to assignment 2, it appears we used GitHub significantly less. Quite a few members preferred to work on their tasks offline and uploading their final versions towards the end. While we acknowledge that we did not use GitHub to its full potential, we did not find that this caused any issues in completing the assignment.

For assignment 3, we implemented the following based on group feedback provided in assignment 2:

- While we did not expressly elect a group leader, we had a member step up very quickly to go through the assignment and work out what tasks are required.
- Members were then given the opportunity to put their hand up for the tasks they would like to do at our first group meeting.
- Balance tasks were then assigned based on member strengths.
- A spreadsheet was then created so we can visually see who is responsible for what to minimise confusion and avoid overlap.
- Additional group meetings were implemented to discuss issues, progress and milestones.

Based on our observations, the group could have improved with the following:

- Group members should have updated the spreadsheet.
- We should have included a process to allow for the reallocation of tasks.
- Quite a few meetings had to be cancelled due to personal reasons but were not rescheduled.
- The group was unable to stick to the original timeframe as changes had to be made but new timeframes were not established.

However, the above did not cause any group issues as members provided updates in discord. Surprisingly (and unsurprisingly at the same time), we did not experience any conflict and any members flaking, being unresponsive or not wanting to pull their weight.

We took away the same lessons as last time, that it is difficult to get the whole group together due to different time zones and personal commitments. Our opinion remains the same in that it is better to find group members early to increase your chances of being grouped with likeminded individuals who are motivated and committed. Finally, having the right attitude and being able to communicate effectively are vital and makes the whole process easier.

Overall, this has been an extremely positive experience for all of us and we have agreed to maintain in contact so we can group up for future assignments.

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