**Home-Fresh**

***Creating Home-Fresh, a one stop shop for everything food, health, and nutrition.***

**Overview and Inspiration**

Our group had several interesting project ideas from both assignment 1, and simply ideas that interested them which they bounced off other member of the group. Many of us had interest in creating a video game. While some of us preferred a more action focused first person shooter, other video game ideas which we gravitated towards focused more on problem solving through puzzles. Another interesting idea was a password storing application that would save and manage the user’s passwords and could be easily referred to, making logging into several different accounts a more streamlined process. However, we felt many of these ideas did not fill a void in the current market as much as the idea we ultimately chose, Home-Fresh.

Home-Fresh is a home cooked meal delivery service that provides homemade meals to users through a simple to use mobile application. This will be done through a network of drivers and cooks that will work together to prepare and deliver meals straight to the door of the users, eliminating any excuses to eat unhealthy food and providing easy, fast and hearty meals wherever you are. In fact, it was found that ‘ a whopping 35% of [the average Australian’s diet] falls into [the] category’ of junk food [1]. The motivation for this project comes from a feeling of necessity as there is a large gap in the market for a healthier version of the popular and largely successful meal delivery platforms currently dominating the food industry, being UberEats, Menulog and Deliveroo, amongst others. There are many people in the community that enjoy cooking and find comfort in food and the way in which food can bring people together. Others may simply want to make some extra income on the side by cooking one of their signature dishes and providing joy to others by sharing their dish with the world. No matter the reason, there are people in the community who would be benefited by all aspects of this business from cooking to consuming to providing jobs for drivers and ultimately providing a one stop shop for a healthier lifestyle, which is our primary motivation for this project.

In the current state of the world wherein we are experiencing a pandemic that closes restaurants and forces people to isolate at home. There will be more people at home leading to more people with spare time that could be dedicated to cooking and more users that cannot leave their houses to eat out. Couple this with AIPT claiming that ‘processed food is becoming increasingly unpopular’ in the Australian market [1], lays out the perfect foundation and solution to one of the biggest problems in the global economy in 2020. Lack of circulation of money due to people being unable to leave their houses. Home-Fresh will circulate money around the economy, from the pockets of the users to the pockets of the cooks, boosting the economy in this time of crisis.

Most cooks are expected to be retirees as this application would appeal to them the most out of any other audience. This is since retirees have more spare time as a general rule of thumb over any other age group because they are unemployed. Many retirees also enjoy cooking and look for something to fill in their spare time while simultaneously bringing home some income so they do not have to purely rely upon their pension and/or super fund. Aside from looking for income and a pastime, many retirees seek a sense of purpose which they lack due to being unemployed, a sense of purpose that Home-Fresh may be able to supply them with. The sense of giving back to the community and sharing their love and creations, giving them that sense of fulfilment that they seek. Melbourne is also the world’s hub of new diets and specialised diets whether that be keto, vegan diets or simply healthy eating, where ‘health consciousness [in aussies] has risen over the past five years’ [2] making it the perfect location to roll out the app for healthy homemade meals.

**Detailed Specifications**

**Meal Preparation**

Meal preparation is a central part of Home-Fresh, where cooks may prepare meals in their own time and in the comfort of their own home with complete freedom to create any one of their Fresh Certified Meals. An example would be if I were to cook 10 of my certified chicken pesto pasta dishes, I would then input into the app that 10 pastas are ready at my location and within the app, select the dish from the list of my certified dishes. Selecting a dish from this list automatically pulls up the nutritional information and dietary specifications, followed by a prompt for the cook to take a photo of the meal to have it quality checked using artificial intelligence software deeming it acceptable or not against the quality control standards set on the Home-Fresh website. Cooks that prepare meals that do not meet the stringent quality control requirements will be reimbursed for the ingredients required to prepare the meal however the next order processed by the cook will be subject to a further commission cut from Home-Fresh, incentivising consistent quality in our cooks’ cooking.

**Ordering**

Considering ‘21% of Australians eat lunch at their desks’ [1], showing the demand for food on-demand, ordering homemade meals would be of a great benefit to the health of these users and through this, we have created the perfect ordering experience. The user can open Home-Fresh to where they are, by default, greeted by the ‘order’ screen which displays meals that are ready for delivery in either a list view or map view, with the ability to sort by cuisine. Orders may be made for either fresh meals cooked in the last 30 minutes or can be ordered from one of the Home-Fresh facilities for a cheaper price than the fresh meals. Both meals will be comparable in quality however one will have been made fresh while the other will have been kept frozen and reheated prior to delivery. Along with their approximate arrival times, users will have access to information on the cook’s background and a rating out of 5 stars as reviewed by previous customers, allowing users to make informed decisions on which meals to order and which cooks they wish to order from. The delivery times shown will need to be calculated through algorithms that consider the location of nearby drivers, the location of the cook, and the location of the user. Upon confirming the order, the user will be able to track the driver’s location and their order while it is picked up and delivered, providing transparency and keeping the user aware of the processes being undertaken for their benefit. After the order has been rated by the user, it will be added to their past orders where the user can then go back and view their past orders with the ratings and comments and reorder one of their past orders if available.

**Delivery**

Delivery will be organised through a network of drivers that will be contacted upon an order being made, requesting for them to pick up and deliver an order. The drivers can accept or decline, with a declined offer being sent off to the next most nearby driver to the cook’s location. Once a driver has accepted, the cook will be notified and can track the driver’s location to be able to be ready to hand over the meal(s) to meet the goal delivery time as shown to the user when they placed their order. The driver then drives to the user’s location and depending on which option the user selected, the driver will leave the order at the door, ring the doorbell or be met on the kerb by the user.

**Post-Ordering Review and Extras**

Once a meal has been received, the user can leave a review for the meal out of 5 with 5 being perfect and 1 needing improvement. Comments can also be left alongside the review with the option to have the comment made public or only viewable by the cook. This feature would be used if the user felt they wanted to give the cook some friendly advice and help them with their dish to which the cook can apply the recommendations made if they so choose. Recipe cards are received with every meal, detailing the ingredients list, step by step instructions to prepare the meal, nutritional information and dietary requirements that have been met/not met by the meal. This allows the user to then apply those recipes of perhaps pick up some new tricks that were mentioned in the cook’s cooking process to apply to their own cooking and overall promote a healthier lifestyle.

**Meal Requests**

Meal requests allow the consumer the ability to request a meal from a cook’s certified menu when there have been none previously made by the cook and would result in the cook needing to cook the meal on the spot. The consumer would need to pay a premium for the dish to be prepared, which would go straight to the cook, commission-free from Home-Fresh. Due to the little to no notice for the cook, they would have the option to accept or decline, depending on whether they are able to fulfil the request. This feature could be useful for the user where if they have previously ordered a meal from a cook which they thoroughly enjoyed, they can reorder the dish even when it is not available from the cook. This also benefits the longevity of the application as it can provide an incentive for a cook who may have stopped using Home-Fresh to allow them to get back into the routine of using the application when they receive a push-notification on their phone giving them an option of cooking one meal and receiving a premium on the single meal. This would be a great reminder of the ease and monetary benefit of using Home-Fresh, keeping the application’s base of cooks as a number that is constantly growing and never diminishing.

**Centralized Meal Storage Facilities**

Centralized meal storage would be the primary method of storage with the initial release of the Home-Fresh as obtaining the initial cook base would be challenging and until there are sufficient numbers of cooks scattered throughout Melbourne, any launch of the application with only on the spot meal preparation and delivery would be bound to fail as there would be either too high a demand to where the limited number of cooks would not be able to cope and users would stop using the application. Or there would be too little demand to where food begins to go off in the houses of the cooks and is wasted. A centralized meal storage system could potentially eliminate either of these problems during the initial launch of the application while a solid and stable cook base is established. During the launch of the application, cooks can prepare their meals and send them to one of our centralized storage facilities where the food would be properly stored in line with health and safety guidelines. They would then be heated appropriately, ensuring quality for the consumer during the process, and would be delivered by one of our drivers to its final destination. This keeps the food from going to waste and ensures that even with a small number of cooks, there can always be meals available from one of the storage facilities rather than relying on meals being scarcely available on the spot. Once a steady and sustainable cook base has been established and the storage facilities are no longer needed for their original purpose, they can be transformed into bulk meal preparation and storage facilities and the bulk meals application feature can begin to be rolled out to users through a slow and staggered approach, modifying as needed.

**Bulk Meal Preparation and Meal Plans**

Once the meal storage facilities become available, the roll out of bulk meal orders will begin. Bulk meal preparation will involve cooks having the ability to opt in to preparing their certified meals in bulk within one of our facilities, housing industrial kitchens. The cooks will work closely with the Home-Fresh team to prepare and store the meals at the facility, eliminating the need for the cook to worry about whether they have enough space in their fridge. Once several dozen cooks have prepared their meals in our kitchens, we can release meal plans where users can select a 2-7-day plan that repeats every week and be able to select exactly which meals they would like from the selection available. The meals would then be delivered weekly at a cheaper rate than buying individual meals. These meals would be marketed as healthier alternatives to the user’s current diet and promote healthy eating and diet-conscious living.

**Food & Health Hub**

Through our meal plan feature, healthy eating is emphasised within Home-Fresh and people who care about what they eat would begin to gravitate towards the application. To fulfil the motivation and purpose of the application along with meeting the needs of the newly found audience for Home-Fresh, a food and health hub will be created. This will take the form of 2 new home screens accessible via the bottom navigation bar on the app where the left menu will open the healthy eating page, the middle button accessing the order page, and the right button unlocking the dietary Requirements page. The healthy eating tab will hold all information on healthy eating, being healthy new recipes to try at home, articles about the newest superfoods and studies about the benefits of a clean diet for just a few examples. This page will serve as the user’s hub for everything to do with a balanced diet, from advice to news articles, it will have it all. The dietary requirements page will allow users to select their dietary requirements where applicable and view everything there is to know about their dietary requirements. This could include the latest studies and medical research on their dietary requirements and would also provide an in-depth analysis of the user’s requirements, description of the differences between other requirements and overall provide a source of education for the user of their dietary requirement, something which can be very useful to someone in that situation such as the ‘1.2 million Australian adults [who reported as having] diabetes in 2017-18’ [3] . Dietary requirements are not exclusive to complex symptoms and diseases such as coeliac disease and diabetes but can even extend to a casual diet such as a keto diet or a high protein diet. No matter the diet, Home-Fresh will provide a wealth of knowledge on the topic through further artificial intelligence that will scan the internet and compile answers to any queries made by the user through the built in chatbot. In both the healthy eating page and the dietary requirements page, there will be groups that users can join, complied of other users of Home-Fresh who share the same healthy eating interests or dietary requirements, allowing for people to connect through a common aspect of their lives and share any tips or helpful information they have concerning the diet with each other. This will provide a platform for like-minded people to communicate and help each other achieve their health and nutrition goals.

**Costs and Creating the Application**

Costs of the application would include the initial marketing campaign to attract new drivers to the business as the initial hurdle at the heart of the project is acquiring a large network of drivers that are spread throughout Melbourne for fast enough delivery to where food does not become cold or the users frustrated. This marketing could be done through cheaper methods such as listings on community notice boards or through intense online marketing and advertisements which would obviously lead to a greater acquisition of drivers but comes with its share of associated costs. Not only would marketing need to be done to attract drivers but also to attracts users and cooks, community notice boards again would be ideal for the latter option as that is where retirees may be most likely to see the adverts. The largest cost to Home-Fresh is the warehouses and space needed for the Home-Fresh bulk food processing facilities. The investments required to purchase the land and build the infrastructure across several locations in Melbourne to be available nearby no matter where the user is would be exponentially large and are likely to be the largest hurdle Home-Fresh would need to overcome to become a reality. Other costs would involve the creation of the application which could again be done on a budget or on a more thought out and developed approach.

The application needs to be programmed and created from scratch using software such as Swift and Marvel to create the app and Pixelmator to help design logos and general design features of the app such as function buttons and menus. A computer would be needed to program the app as well as a smartphone in order to test the app and ensure it runs smoothly on all devices.

The skills required would involve heavy experience with programming languages such as swift since Apple has not allowed the use of java or similar languages to create apps on their platform. Marketing skills will be needed to know where and when to advertise the app and what effects it may have on our potential users. All the skills mentioned are not difficult to find as they are not very specialised skills. The software’s needed are also easily accessible and there should not be any issues accessing them to produce the app.

**Changes Made relating to Issues and Dead-Ends Encountered**

Due to meals being made in one’s house when they feel up to the task of cooking meals for others or when they have spare time, which may be sporadic and cannot be predicted, there may be times when there are no meals available or limited quantities during peak hours of trade and cannot meet the demand. This dead-end was identified and resolved with the implementation of the Home-Fresh facilities whereby cooks would be brought in to mass produce meals to be kept frozen in the facilities. This ensures that even during times where there is a lack of fresh meals prepared in the community, there will still be meals available through the app.

Ensuring consistency in meals prepared was a problem which was identified and thus the solution of the quality check was implemented to ensure that meals were not delivered to users if they did not meet the standards set by Home-Fresh. The idea of the quality check using artificial intelligence was initially thought to be too large of a task to need to have each meal checked and have meals that did not meet the requirements scrapped but it was deemed necessary to be able to promote the meals in a way that was fair to the community as without the check, there would be no consistency in meals and users would lose faith in Home-Fresh.

The decision to in favour of having nutritional information and the dietary requirement details on every meal recipe card was one not taken lightly as it would pose great costs towards the certification of each meal by Home-Fresh but was again deemed necessary as the concept behind Home-Fresh is that users can purchase healthy and nutritional meals that are in line with any potential dietary requirements and if this could not be met and enforced then Home-Fresh would not be worth pursuing.

Initially, cooks were to be instructed how to package and store meals in their homes through small storage units provided by Home-Fresh that would be kept on the cook’s land. This posed a fair share of issues relating to the cooks becoming upset with space in their homes being occupied by something that doesn’t need to be there, having to teach and show each new cook how to package their food properly to ensure consistency in packaging as well as the possibility of cook’s being uncomfortable with strangers entering their property to install storage units. These issues led to the group deciding to opt for the larger warehouse storage facilities which solved most these problems.

It is anticipated that there will be several legal issues involved with providing meals cooked in inconsistent homes and without food health and safety guidelines being met but to alleviate this problem, each cook can apply to join the app and when they do, must agree to their kitchen space to be examined by professionals hired by the company to certify that the cooking conditions meet the standard in the business. This will also allow for customers to feel safe and confident in purchasing the homemade meals.

Initially, Home-Fresh was named ‘Homemade Cooking’. The change to ‘Home-Fresh’ was one decided by the group as we found it to be more appealing with the word fresh being used which more so shared the views and values of the company in the name. Also with the change of the application becoming more of a health hub rather than solely a homemade cooking delivery service, the name was not as fitting as it previously was. Home-Fresh overall had a double meaning of being home prepared meals while also being the user’s home on their phone for everything fresh, implying health and nutrition. We felt this accurately represented our idea and final concept and thus the name was changed from Homemade Cooking to Home-Fresh.

Until the middle stages of the concept of Home-Fresh, a partnership with Uber was to be used for the network of drivers to allow an easy to access network of drivers that did not need to be created from the ground up. This was then identified as a potential problem because if the partnership fell through, the entire business model behind Home-Fresh would crumble and the application would rapidly diminish. Therefore, it was decided that a network of drivers would need to be created from new without using another company’s network.

**Timelines**

At the current stage, planning has been tracking on time and extremely efficiently with many details covered and most aspects of the application having already been thoroughly explored in detail, giving us a great image of what Home-Fresh could potentially look like in the future. In reference to the timeline, we are ahead of schedule with our set release date of August 14th, 2020 as we have already commenced and are making headway into the early design phase of the project and will be beginning the test meal menu shortly thereafter. According to the schedule we are roughly tracking one week ahead as the design phase was set to start on June 6th. This however was initially expected to be a faster time than the set timeline and we set out some breathing space for ourselves in the event that problems arose during the planning and design which ultimately did not. We anticipate that the delivery driver analysis and mobile application development phases of the project will take longer than expected and therefore this extra week we have gained will allow us to get a head start on those aspects and fast track the schedule to hopefully meet the August 14th release date. The designs for the application were created as rough sketches and are expected to be tweaked in future development cycles however for now they provide an extremely valuable picture of the final product of Home-Fresh.

**Conclusion**

There will be no longer a shortage of options for a variety of meals from a variety of chefs, providing seemingly endless amounts of unique foods that you cannot find in a restaurant with each cook providing different and unique experiences with Home-Fresh. Moreover, recipe cards will be delivered with each meal allowing the consumer to learn how to cook the dish and hopefully start cooking habits of their own to allow them to lead healthier lifestyles. Many current options for meals away from home are local cafes and restaurants or for the busier individual who may not be able to leave the office, ordering food delivered which in its current state is riddled with unhealthy options and forces the consumer into purchasing food that will be detrimental to their health and diet. Instead of having an oily pizza and garlic bread for lunch at the office, they could enjoy a healthier, more cost-effective meal that also gives back to the community.

If Home-Fresh is successful and becomes widely used for meal delivery services in the place of UberEats, menulog and deliveroo, Melbourne will see people undertaking healthier eating habits and undertake cooking of their own through the recipe cards. This will reduce the amount of people that are overweight, give people new hobbies through the retirees being able to cook and fill in their time with something they enjoy and giving the consumers the ability to learn new recipes and eat healthier while assisting retirees in fulfilling their desire for a purpose.

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