



# Macro-Manager Proposal

The best way to track your calories on the go

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## Executive Summary

This proposal outlines a concept of a software which will provide value to users who track their fitness goals through calorie tracking apps. We will outline the flaws within these existing apps and provide innovative solutions to the problems that they pose.

Macro Manager will deal with three main flaws present in calorie tracking apps and food apps in use today. These flaws are as follows:

- No way for users to estimate or calculate calories from restaurant/takeaway food
- No way for users to find restaurants which fit their dietary requirements BEFORE deciding where to eat
- No way for users to add supermarket ingredients together in order to create custom recipes.

Macro Manager aims to solve these problems with three innovative features within the app. These features are as follows:

- Allow users to scan menu items using the camera of their phone and receive an estimate of the calories and macro-nutrients found within the food item.
- Allow users to filter a list of local restaurants based on dietary requirements and calorie requirements
- Allow users to create custom recipes using existing items in their calorie diary.

By dealing with these problems Macro Manager will remove the inconvenience and frustration of calorie counting. This will give people a much easier path to their fitness goals, equipping users with a convenient tool to help them make better food decisions and develop a healthy relationship with food.

## Problem Statement

As the fitness industry grows, the number of people who are using apps to track their fitness goals and progress is increasing, however still a niche market, with about 26% of Americans aged 18-29 using apps to track their calories as of 2017 (Kunst, 2019). These apps assist in the tracking of calories and macronutrients (fats, carbohydrates and proteins) present in foods which a user will consume over the course of a day (Alexander, 2020). Many of these apps such as MyFitnessPal, Fitbit, HealthyOut, Lost it!, Nutriotionix Track (Picard, 2020) etc. function almost identically and have the same flaws. Some of these flaws include no way of helping users to estimate the calories from menu items at fast food chains and restaurants in order for them to make better food choices both before deciding where to eat and deciding what to eat once there. Finally many of the existing calorie tracking apps allow for users to scan supermarket items for nutritional data and log this in their tracker, however the ability to add these items together in specified amounts to create recipes for the user to log is missing and often makes calorie tracking time consuming and inconvenient.

## **Solution Statement**

Based on the above problems, the proposed software will provide users with an estimated calorie range for menu items from fast food chains and local restaurants upon scanning the menu item with a phone camera, using OCR (Optical Character Recognition) and a food database. It will also provide users with a list of places to eat in the locality. These will be filterable by calories and dietary requirements, for example if a user requires a meal under 1000 calories they can filter restaurants based on this criteria. Similarly if a user is vegetarian, vegan, keto etc. or has any allergies they can filter restaurants based on these dietary requirements. Finally, it will allow users to scan items bought from a supermarket for nutritional data and add these items together to create custom recipes. We hope to provide some of these features in partnership with local restaurants in order to gather more accurate data and provide our customers with a much smaller range or exact number of calories in their takeaway meals. On top of these features which will solve the problems mentioned above, Macro Manager will also provide similar functionality to the many existing calorie tracking apps i.e allowing users to scan the barcodes on food items, retrieving their nutritional data and saving this to what we'll call their calorie diary.

Should the project schedule move faster than planned there are several features which may be available in the first release, otherwise these features will be pushed to a phase two. Some of these features include the ability to integrate Macro Manager with apps like Fitbit which are linked to users wearable devices adding another layer of simplicity to their experience, analytics of users consumption habits in line with their body composition goals (weight loss, body fat %, muscle gain etc.), recommended recipes, a recipe hub where users may share their custom recipes with each other and information surrounding healthy and unhealthy relationships with food to improve the mental health issues which pertain to many of the fitness industry's standards and unrealistic expectations of people.

## **Business Model**

Macro Manager's business model canvas will help to answer any questions on how we will provide value to customers, make money and conduct business through the software.

### **Customer Segments:**

Our customers will consist of two main groups: people with dietary requirements and people who track calories. People with dietary requirements especially ones that involve allergies often find it very difficult to find places to eat out which offer food adhering to their requirements. Many of them opt to not eat out at all due to this and when they do go out they take a very long time to find somewhere suitable or are pigeon holed into places they frequently visit and know are suitable for them.

People who track calories often find it difficult to eat out as they have no way of knowing how many calories are in the food they want. Often people will underestimate this number themselves and will throw themselves off track for their goals. They also want this process to be fast and easy to do multiple times throughout the day.

### **Value Propositions:**

Macro manager is compelling because it will provide these two user groups with more convenience, usability and customisation than any other app on the market right now. It will allow the tracking of calories to be an efficient and streamlined experience and will allow users to find places to eat without wasting time worrying about allergies and diets.

**Channels:**

The proposed channels with which to promote Macro Manager are through marketing and partnerships with local restaurants. Leveraging marketing and advertising directly through restaurants in partnership with us will allow us to reach more customers faster.

**Customer Relationships:**

All of the proposed features of the application will be fully automatic and require no communication between us and the end user.

**Revenue Streams:**

Like many other applications on the market now and in the past, we will be making use of advertisements within the application to generate revenue. On top of this we will have a paid subscription offering to users who would like better statistics, in depth analysis of their progress, helpful tips to achieve their fitness goals and the removal of ads.

**Key Activities:**

The key activities involved in the development of Macro Manager will be software development, problem solving and building the platform and network as the foundation for the application.

**Key Resources:**

The key resources which will be involved in Macro Manager are the intellectual property surrounding the application and the partnerships with local restaurants which we hope to secure.

**Key Partnerships:**

We hope to provide more accurate nutritional information about food items and optimise the search engine for restaurants by entering into partnerships with local restaurants.

**Cost Structure:**

Finally, the main costs which Macro Manager will incur will be hosting costs (server hardware, electricity etc.) and software development costs. As such this is a value driven proposal. As more customers use the application the higher the costs from hosting will be, however the revenue streams mentioned above will offset this.

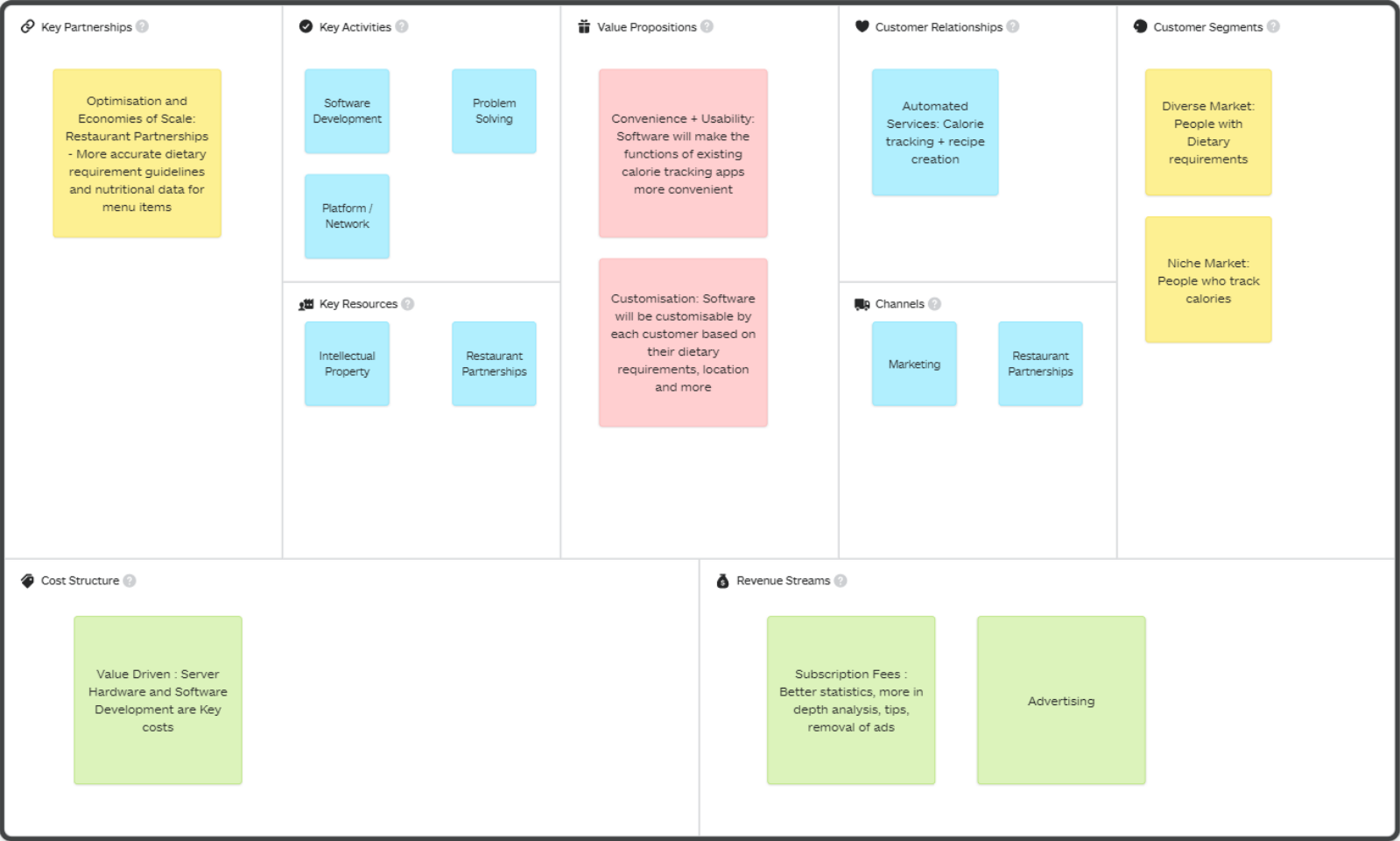
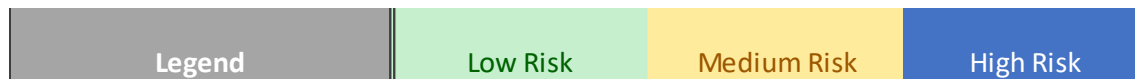


Figure 1: Business Model Canvas

## Project Schedule

		01-Oct	15-Oct	29-Oct	12-Nov	26-Nov	28-Jan	11-Feb	25-Feb	11-Mar	11-Mar	15-Mar
Work Package	Tasks	Proposal	High-level Design	Environment	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6	DEMO	Presentation
Work Package 1.0 Proposal	1.1 Executive Summary											
	1.2 Problem Statement											
	1.3 Proposed Solution											
	1.4 Business Model Canvas											
	1.5 Project Schedule											
Work Package 2.0 High-level Design	2.1 ERD											
	2.2 User Stories											
	2.3 Data Value Map											
Work Package 3.0 Environment	3.1 Database Platform											
	3.1 API Language + Libraries											
	3.2 Hybrid vs Native App											
Work Package 4.0 API	4.1 Calorie Diary											
	4.2 Calorie Estimator (Menu Items)											
	4.3 Restaurant Locator/Filter											
	4.4 Recipe Creator											
	4.5 User Functionality											
Work Package 5.0 Database	5.1 Models/Schema											
	5.2 Develop integrate and Test											
Work Package 6.0 Frontend	6.1 Wireframe/Design											
	6.2 Prototype											
	6.3 Integrate and Test											
Work Package 7.0 Demo	7.1 Film											
	7.2 Voiceover											
	7.3 Edit											
Work Package 8.0 Presentation	8.1 Slides											
	8.2 Present											

Figure 2: Gantt Chart



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