

**NELSON MANDELA UNIVERSITY**

**School of Information Technology**

**ITPV302**

**Bachelor of Information Technology (BIT)**

**Date**

***Business Case***

**Compiled by**

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Contents

[The Problem(heading must be changed) 2](#_Toc174435143)

[Objectives 2](#_Toc174435144)

[Background 2](#_Toc174435145)

[Related Systems Analysis 2](#_Toc174435146)

[Project Plan 2](#_Toc174435147)

[Risk Analysis 2](#_Toc174435148)

# The Problem(heading must be changed)

The modern way of life and prevalence of fast-food options available coupled with the difficulties of meal preparation, have led many people to prefer fast food as opposed to them cooking their own meals.

The internet has also provided numerous methods of finding recipes through various means(*The Best Cooking Apps of 2024*, n.d.). But these methods are often separate requiring different websites or apps to accomplish a simple task. We believe that if these various methods are brought together then the meal preparation task can be made easier.

According to online sources there are countless recipe apps and websites, but most have shortfalls that annoy a user and make them less likely to return to the app/website (Botev, 2018). Most recipe apps focus on filtering recipes based on metrics such as dinners, lunches etc, while this is useful it also fails to accommodate for the people that want to find recipes that they can make with the ingredients that they have at home.

Another major fact to consider is the abundance of different diets that restrict what people can or can’t eat. If an app that can cater to this need, then the app can be worthwhile pursuing as it will fill a gap in the market (Botev, 2018).

The problem will appear to individuals that want to cook at home using recipes that adhere to their diet and can be filtered based on available ingredients.

# Objectives

Some of the most common problems when it comes to cooking include dietary needs, time management, lack of ingredients, no motivation and lack of skills. Our project will attempt to address these issues along with others which affect the general home cook. The software solution proposed will solve this by doing the following:

* Meal plans based off user preferences
* Recipes can be filtered, by having a list of selectable ingredients
* Easy to follow instructions with timers, allowing the user to monitor the amount of time to complete a recipe
* Saveable recipes, allowing accessible recipes offline

# Background

Home cooks may run out of ideas on what to make, or they lack the ingredients to prepare a specific meal they had on mind. This amount of time spent preparing a meal also affects the eagerness to do it. This may lead to a lack of motivation to prepare a meal when there is no inspiration or if there is a time constraint (RDN, 2022).

Some users may also have specific dietary needs, but cannot stay consistent or plan meals properly. It is sometimes much easier to buy a take-out as it is far quicker despite being an unhealthier option at times. Therefore convenience is often the deciding factor on whether or not to prepare a meal, along with having the necessary ingredients (Monsivais et al., 2014).

## 3.1 Common Issues with Recipe apps/websites

Recipe apps and websites have been laden with many issues which have lead to many users becoming sceptical about using them(Davis, 2024). To ensure that our website/app doesn’t follow the same issues it is essential to investigate what is making recipe apps and websites so bothersome to use.

Below will be a couple of these issues:

* Navigation can be difficult due to a lack of clearly label categories
* Recipes can often have recipes with misleading or vague instructions
* Recipes can also have ‘clickbait’ titles such as “The most flavourful …”
* Free apps and websites will be plagued with intrusive/distracting ads
* Poor and outdated UI design choices(Davis, 2024)

## 3.2 A lack of dietary friendly options

Another major issue that is noticeable is the lack of dietary filters for people who are vegan or follow a keto diet etc. In the two figures (figure numbers) shown, they can be seen as examples to illustrate the point that these websites do not fully cater to the different diets that exist.

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| Figure 1: Simply Recipes Dietary Selection Screen (Recipes By Diet, n.d.)  In Figure 1, there are some diets offered but despite mentioning keto and paleo the explore area does not feature a keto or paleo option for users to look through. |
| Figure 2: Dietary Selection of AllRecipes (Cuisine A-Z, n.d.)  In Figure 2, there are no dietary options available making the process for finding a vegan recipe more bothersome for the user. |

The revival of Home Cooking

Following the lockdown caused by the COVID-19 pandemic, many people were inspired to tak up cooking their own food(Wong, 2023). While the demand has decreased as indicated in Figure 3 there has been a shift in the mindset of people to prefer home cooked meals(Wong, 2023).

Figure : Google Trend Graph for "Recipes" over a 5 year period(Google Trends, n.d.)

With that change in mindset there is a need for a more modern and responsive recipe app that can fill the need that people want from a recipe app/website.

# Related Systems Analysis

## Zanele’s System

For pictures:

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## Yummly

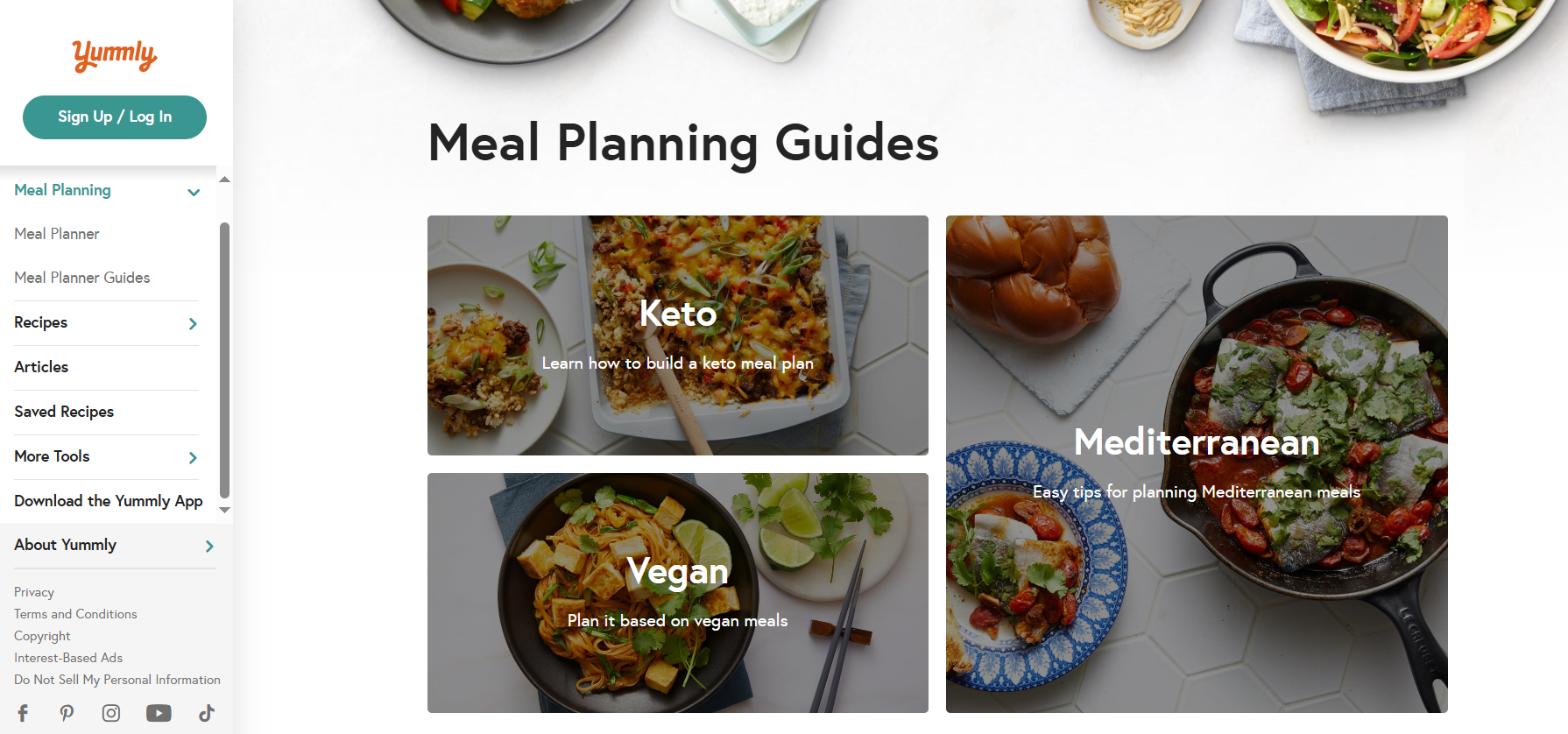
* Name of system: Yummly
* Platforms: IOS / Android

Yummly acts as a hub with existing recipes that are taken from different sources. One of the main features is filtering the recipes by user preferences. The system personalizes recipes and discovers what the user is interested in. Yummly makes use of big data which allows them to recommend the recipes based on dietary needs, taste preference and if they are allergic to any ingredients (*About Yummly | Yummly*, n.d.-a).

Features to consider:

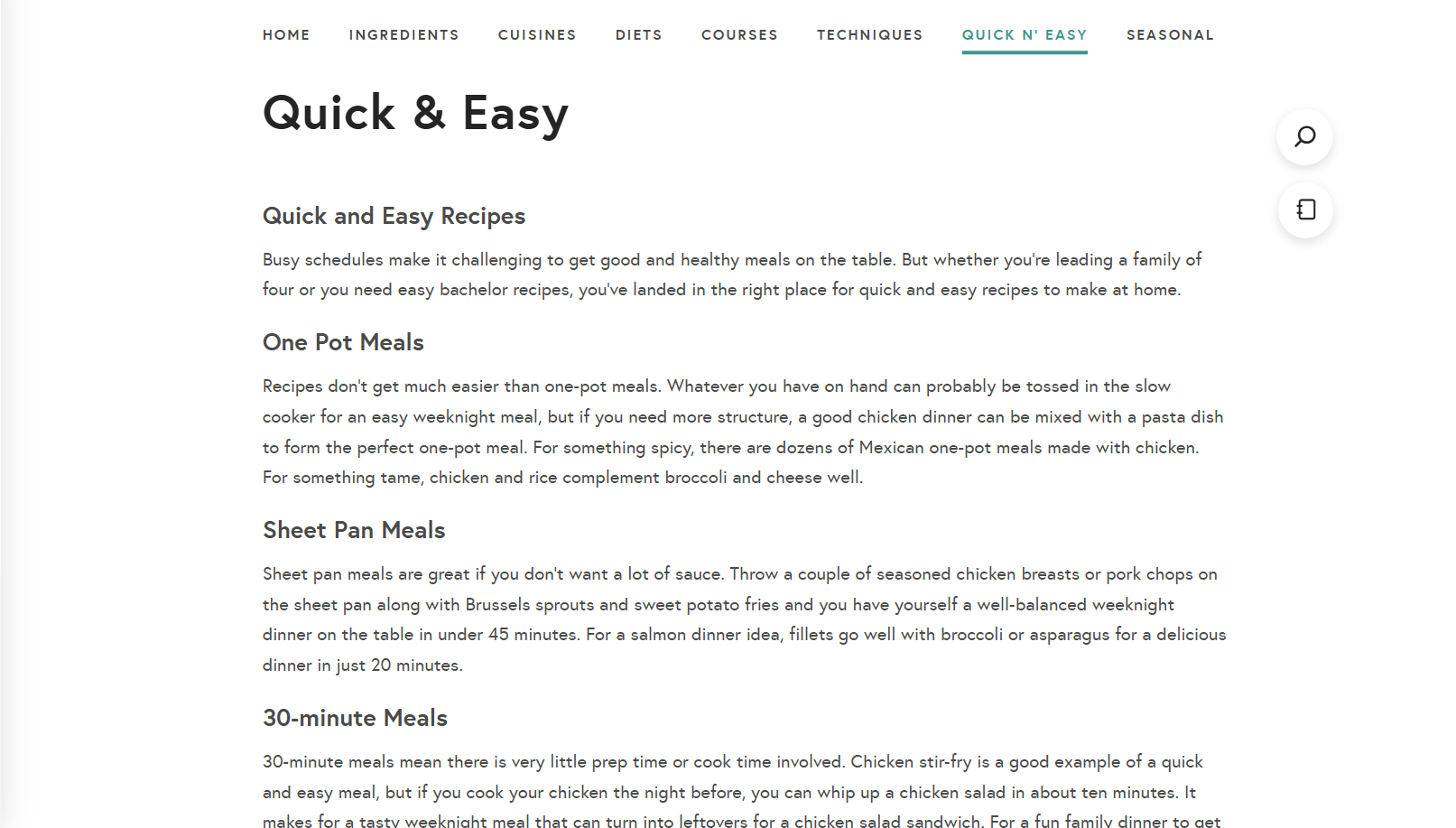
* Guided Recipes
* Meal planner
* Personalized recommendations
* Searchable Recipes
* Recipes filtered by course
* “Quick & Easy”, consists of easy to prepare quick meals for those who are busy

The features that stood out from this list is the meal planner, personalized recommendations, recipes filtered by course (starters, dinner, desserts), and the Quick & Easy choice. These allow the user to filter recipes based on dietary needs, whether they are allergic to certain ingredients or if there is an ingredient they do not want in a recipe. The quick & easy option simply allows the user to find recipes such as “one-pots”, where everything is thrown in and left to cook. A meal planner seems to be a major feature of Yummly, it allows the user to set a schedule as well as add to a shopping list where they can get the necessary items needed for a recipe. The meal planner also comes with preset guidelines if the user wants to change their diet or follow a premade plan.



Note: Screenshot from (*Simple & Personalized Meal Planning | Yummly*, n.d.) Screen. Copyright 2024 Yummly. All rights reserved.

Figure .1 Yummly Meal Planning Guide Screen



Note: Screenshot from (*Quick & Easy Recipes | Yummly*, n.d.) Screen. Copyright 2024 Yummly. All rights reserved.

Figure 1.2 Quick and Easy feature screen

Avoidable Features:

* Seasonal recipes
* Subscription plan
* Techniques

For our app having a subscription plan would not make any sense, as it is meant to be free for the user to have access to all the necessary features from the start. The techniques feature ranges from beginner to advanced, in this case it is simply instructions on how to prepare certain ingredients of a recipe which should already be included in the instructions.

## SuperCook

Platform/s: Android / IOS, Windows / Mac, Web

Description: SuperCook is a recipe search engine. This search engine will take the ingredients that you select you have/want to use and will search for recipes that use those ingredients allowing people to use ingredients they have on hand(*SuperCook - Recipe Generator - Apps on Google Play*, n.d.).

Features that we want to incorporate:

* Filter recipes based on ingredients
* Filter recipes by diet, meal time etc

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| Figure 5: The Main Page of SuperCook(Supercook, n.d.)  [Figure Number] shows the main page of the website. From here a user can scroll down to see the different sections and expand them to fin the ingredients they want to use.  One feature to avoid is that the extra filtering options are only shown once ingredients have been selected. |
| [Figure number] show that the results of filtering recipes based off of ingredients that the user chooses.  The recipes are not created/ maintained by SuperCook and are only links to the site that has the recipe. This leads to a feature that we want to avoid is to only have our app/website act to find other sites.  Another feature we want to avoid is the results are sometimes singular focus recipes meaning they focus on only the meat for example. |
| [Figure Number] shows the expanded options for filtering the recipes. This is a feature that we want to use for our app/website as adding additional filters such as meal time or diet is very important to appealing to a wide variety of people. |

# Project Plan



Figure : The Roadmap for the project.(ITPV302\_Project\_Plan, n.d.)

In the figure 1 above, is the current roadmap for the project. The major deliverables are laid out and along the way the minor deliverables are added. The minor deliverables relate to the delegation of the work to the different team members.

In Table 1 the start and end dates are shown for the deliverables. The end date is the date that the deliverable needs to be submitted by.

Table : The major deliverables of the project

|  |  |  |
| --- | --- | --- |
| Deliverable | Start date | End date |
| Project Proposal Submission | 5 August 2024 | 9 August 2024 |
| Business Case Submission | 26 August 2024 | 30 August 2024 |
| System Requirements, Specifications and Technical Design Submission | 23 September 2024 | 27 September 2024 |
| Implementation Documentation Submission | 14 October 2024 | 18 October 2024 |
| System Presentation | 4 November 2024 | 8 November 2024 |
| Final Documents and System Submission | 11 November 2024 | 15 November 2024 |

Each major deliverable requires that the minor deliverables be completed before it can be completed.

The work is split up evenly between the group members, the work done by a member is reviewed by the other members to ensure that the information is relevant and well structured.

Communication:

* Discord – main line of communication
* Outlook (email) – Backup line of communication if there is an issue with Discord.

# Risk Analysis

Risks: Team member sick (transferable risk), Loss of power,

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