Project Scope

# Project Requirements:

### User requirements

As part of the project, several people whom are potential users were spoken to for gathering requirements. A use case of three personalities were drafted up from the user requirements whom, based off their feedback, were the mutually distinct in their requirements of the application. They are as follows:

### User 1: Enda Deane

#### Background information

Enda Deane (End) is a 22-year-old white male student who is currently undergoing a college degree in computer science. Aspiring to be a game engineer, Enda has been a vegetarian for eight years and switching due to a dislike in taste in processed products. Enda has both dyslexia and dyspraxia condition as disabilities. Some of the personal interests involve either individual or social activities associated with art and games.

#### Expectations from the application

Enda’s reason for using the application would ensure the diet is followed through correctly. This would involve the application understanding the diet and filtering out the unnecessary options in a visual aesthetic, graphical and simple user experience. When he is logging his diet or inputting his personal details, it should be easy to complete and access. Among Enda’s expectations are accurate information displaying only vegetarian options.

#### Backstory and reasons for using the application

Enda would often need assistance and reminders to ensure the diet is optimised for his needs. However, it would be a waste of his time if he is bombarded with meat products inside the application or the application is completely inaccurate.

Due to his disabilities, the application must be polished and smooth, yet easy and adjustable to cater to his needs. Since he is in college, the context must sweet and short. Enda has requested for a colour scheme as part of the feedback.

### User 2: Susan Smith Jackson

#### Background information

Susan Smith Jackson (Sue) is a 48-year-old white female student who is a recognised author of a book called “From a moth to a butterfly”. Currently a mentor and coacher of people who work with disabilities, Sue’s experience in the area is vast. Sue also has kids with disabilities and worked with adults of various disabilities. Her interests lie in the fields of family, meditation and harmony.

#### Expectations from the application

Sue has advised on serveral functionality that would allow people with disabilities or carers to efficiently use the application. One is access to the camera to scan in the diets rather than inputting it manually combined with the variety of diet choices. Another is importing a system that allows blind people to use the application. The usability of the application must be simple yet intuitive. Some favourable, optional choice are the ability to download the logged diet and display social events with people of the same interests.

#### Backstory and reasons for using the application

Sues’ reasoning for the application is both personally and universally. Had she gotten access to this application during the time she has worked with adults with disabilities, it would had cut down on both the short term and long term on managing the diet, especially if it came with a scanner. Many careers in this position would find it difficult to manage manually logging the diet and care for the disabled.

She is also aware of people who are blind that be interested in this application if they could use it. Since their interests varies different options should be available to them. She also jointly takes care of a son whom she knows would really benefit from this application if designed to his needs. Ideally getting a soft copy of the logs would be nice.

### User 2: Noel Reilly

#### Background information

Noel Reilly (Noel) is a 51-year-old white male whom does part time caretaking at the local GAA club and is primary minder of his kids. He has a personalised omnivore diet, which assists him in his fitness and sporty areas of interest. His previous experiences involve being of club for group of kids with disabilities. Noel has been diagnosed with diabetes and interested in methods to prevent that happening to his family.

#### Expectations from the application

Noel wants to have full control in being able to set his own schedule for the diet of choice, which would assist him greatly in his life goals in the area. The one thing that helps is a way to motivate himself through challenges and awards, which he also wants full control over. The application should provide a description of the products he is consuming, including their meaning.

#### Backstory and reasoning for using the application

For twenty years, Noel has been into fitness and proper dieting. This resulted from previously being on a shocking diet leading to the diagnose of diabetes. Since the diagnose, he has going through intervals to understand what the correct way is to diet properly, such as consummation of products and their ingredient list meaning.

Continuing this journey, Noel wants to ensure he is continually motivated. As a result, he may want to change his diet to cater to the goals, which he expects the application to cater to.

### Business Requirements

After phase of gathering the user requirements, the collection of the business requirements are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Business Feature Requirements** | **Description** | **Priority** | **Scope Area** |
| User login | Allow user to login through username and password | High | Mandortaory |
| User Register Account | Allow the user to register for the system | High | Mandortaory |
| User logout | Allow the user to leave the application gracefully | High | Mandortaory |
| View profile | Allow the user to see their details | High | Mandortaory |
| Modify Account | Allow the user to update their details | High | Mandortaory |
| Import / Login / Register using an external application | Allow the user to login using details from social media and / or Fitness / Nutrition Apps, such as Facebook or Fitbit | Low | Out-of-scope |
| Simple Navigation UI | Allow the user to access the different parts of the application smoothly | High | Mandortaory |
| Diet Logging System | Allow the user to log their diet into the application through various ways. | High | Mandortaory |
| Download logged diet schedule | Allow the capability for the user to download the diet that has been logged. | Medium | Optional |
| Simple, intuitive Graphical UI | Simple UI to allow the user to log their diet into the application, using buttons and Imagery as opposed to heavy textual information.  This would resort to the user using a search bar to filter out the specific dish they had (such as pepperoni pizza as example).  Once this has been selected, the user would view the default options of food and ingredients are used before having the option to accept, accept and modify or return to search. This would allow the user to input either homemade dishes or take-aways.  This would incorporate the ability to set the fields from previous inputs (reusing dishes) | High | Mandortaory |
| Template for diet | Allow the user to decide their daily diet as to their needs, such as breakfast, lunch and dinner or brunch, dinner and supper as examples | High | Mandortaory |
| Scanner for recipe input | Using the camera to scan the barcode to get the ingredients | Medium | Optional |
| Advisor / Recommender System | System to advise the user based off their inputs | High | Mandortaory |
| Optimal UI / UX Experience of the advisor system | Use graphs and imagery to assist in advising the user | Medium | Optional |
| Daily trends | Display the user their daily input and advise on what to do | High | Mandortaory |
| Display Weekly trends | Display the weekly versions of the daily input and advise on what to do | High | Mandortaory |
| Display Monthly trends | Display the monthly versions of the daily input and advise on what to do | Medium | Optional |
| Display Yearly trends | Display the yearly versions of the daily input and advise on what to do | Low | Out-of-scope |
| Breakdown of the nutritional input | Display in lay terms what the user are eating and how it impacts their body | High | Mandortaory |
| Cater to user goals and macronutrients nutrition deficiencies | Implement different categorical solutions depending on both the goal of the user (ie lose weight) and their nutrition deficiencies (ie celiac) | High | Mandortaory |
| Suggest alternatives for diet | Provide graphical solutions in areas where diet could improve | Medium | Optional |
| Colour Scheme | A colouring scheme to alert the user how their diet is | Low | Out-of-scope |
| Effective Diet Scheduler Advise | Advise on how to diet effectively, from the periods of when you eat to how much you eat at each interval | Low | Out-of-scope |
| Notification / Alert System | Notify the user to use the application, whether it is to log their breakfast or to check their dietary analysis | Medium | Optional |
| Product Label Description UI | Provide a breakdown of how to effectively read the ingredient list of products bought from the shops using Graphical UI | Low | Out-of-scope |
| Food Pyramid Interactive UI | Allow the user to find out key details about proven healthy diets, such as vegetarian, using an interactive food pyramid. This would incorporate a breakdown of what to eat regularly and examples of each (ie vegetables) | Low | Out-of-scope |
| Disclaimer within application | Ensure the user understands the application has not been reviewed for ethical standards and therefore cannot be taken seriously | High | Mandortaory |
| Temporary storage and usage | Enable the user to access the features without the need for the internet | Low | Out-of-scope |
| Challenge and Reward System | Enable the user to either have computer generated with a goal in mind or allow the user to create one themselves. This would be catered with the advisor system to ensure the user reaches their end goal regarding their nutritional and dietary needs. | Low | Out-of-scope |
| Assistive Technology Systems | This would enable people with various disabilities to be able to use the application, such as the blind people etc. Methods, such as importing the needed system or deriving from them, would be used here | low | Out-of-scope |

The requirements labelled “Mandortaory” are necessary to complete within the timeframe scope of the application dating from the 16th September to 2nd April. The “Optional” fields are extensions that may be completed within the scope provided there is time to accommodate them. The “Out-of-scope” fields are areas in which we know are impossible to do given the timeframe and so are outside the scope of the application.

### **Risks**

A security risk associated is the application, due to not being a security application, will not be as safe as other applications. If time allows it, an encryption library could be imported. The medical risk is someone might take the application as in production (ready-made). So, a disclaimer would have to be imputed to prevent this.

If a technical requirement is missing, an appropriate substitution will have to be found quickly while temporary technology would have to be used. The works on the application will use git server control to track its progress, so the data will be backed up as necessary.

The last risks are unforeseen events occur, such as sickness or family matters etc. Should any of the two happen, appropriate measures will follow suit, such as getting in contact with the authorities of the school of computing etc. A schedule was created to minimise the possibility of this hindering the project overall development.

## Technical Requirements –Place in chapter two

## Safety, Security and risks

# **Background of the application**

NaDMA is designed to assist the different target users in managing their nutritional and dietary needs. This would be done by the user inputting their personal details and optional diet choices. NaDMA then uses the information to advise the user what they are doing well, what they are missing and offer solutions.

# **Deliverables**

The key deliverables for NaDMA are the technologies of the development of mobile application for the user to use, the remote database backend server for data storage and middleware to separate the concerns of logic between the two entities. The dissertation must be deliverable simultaneously. The instruction on how to set up the configuration files and the associated configuration files are needed for the application to work properly.

# **Justification for the project**

The average user does not have the enough knowledge on using the current industry applications, such as the mgs per macronutrient, to operate the applications optimal. As a result, the complexity of the UX needs to be reconsidered for ease of use and design overall.

# **Constraints**

Our constraints are the lack of physical hardware for iPhone users and budget. Since we do not have iPhones to test the application, emulators would be used to substitute. This could come into design problems later in the hardware, if not carefully designed, and potentially create test or evaluation issues. About the technology area, the project can only access either open source technology or technology which students can access for free.

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# **Included requirements**

# **Exclusions**