***Aims***

The overall aim of our project is to create a well-rounded mobile application that will be of assistance towards sufferers of gastroesophageal reflux disease. Meanwhile, smaller goals consist of Informing the apps users about helpful information on GERD, helping them to establish exactly what types of foods/drinks they personally can and cannot consume, and to allow our users to observe and monitor their nutritional intake.

When a person is first diagnosed with gastroesophageal reflux disease, they will be given some information and general advice from their doctor, although it is often found to require a lot of further research later on, particularly towards exactly what foods are and are not acidic, but also other helpful tips such as standing whilst eating, drink a glass of water before each meal, include plain rice cakes into your diet (which will soak up excess acid in the stomach). For this reason, an important part of a well-rounded mobile application to assist sufferers is an educational tab.

The educational tab will include many informative features, alongside a search bar, where you can input your favorite foods, and it will return information on both whether you can eat those foods, and what their nutritional value is. Informing users on helpful information is a back-bone goal towards the overall goal and a sure way to aid users in their recovery and avoidance of further symptoms/damage to their bodies.

The second most important thing for helping a person recovering from/living with GERD is for the person to be able to accurately determine what foods they can and cannot eat. Now, controversially to the educational tab, each individual is different, and so will be their symptoms, severity of symptoms, and exactly what foods/drinks they can and cannot consume. Because of this, tracking ones’ symptoms will play an important role in their recovery, and therefore the diet and symptoms tracker was a crucial part of our mobile application.

The diet and symptoms tracker will do exactly this; helping the user to establish exactly what types of foods/drinks they personally can and cannot consume. This will be done through the use of a diet diary, which will act as a record of what the person has consumed throughout their day/week, a symptoms tracker (which will act as a recording of the persons symptoms), and pop-up advice generated from the programmed analysis of the persons diet and symptoms. With thanks to the users’ data inputs and the programming then being able to take that data and analyze it, the application will then be able to generate personalized feedback based on these results. This feedback will be able to tell the user things such as “Your symptoms have been higher than average, here are the foods we suspect of causing these issues: \_\_\_\_\_”

Now, with such an ambitious application, creating it all within a shortened time from can certainly have its’ limits. Therefore, our team has had to approach this with the consideration of importance over what particular parts of the application are more important than others and should therefore take precedence. Whilst the three major sub-topics themselves are all very important parts of the overall goals for our project, there are some particulars that can be cut down where required.

As a demonstration of our function priorities, and the reasons behind these decisions, I have compiled the following list of sub-functions and their importance:

1. The diet diary and symptoms recordings themselves
   1. These have taken top priority as the most useful part of the application because even without the pop-up advice and within their rawest form, the user will be able to look at these as go to guides to figure out for themselves what foods they can and can’t eat.
   2. This has been placed above its’ close equal, the search bar in the information tab, because of its’ personalized features that not only tell what food/drinks are harmful and what isn’t, but states specifics of what food is likely to be affecting that particular person.
2. The search bar in the information tab
   1. More importantly, than helpful advice on GERD, is finding out exactly what to and not to consume in order to have the biggest possible impact on your symptoms. This is why we have placed the search bar as the second highest priority.
3. The information inside the information tab
   1. The overall goal of creating this application is to assist sufferers of GERD. For this reason, informing the users takes place as one of the top priorities.
4. Symptoms Tracker
   1. Albeit less important than the top three (as they are all absolute essentials towards achieving our main goal, and directly in line with the sub-goals), the app in itself would be very plain without more to it; albeit more effort, a person could achieve the top three through a combination of Google, and pen and paper.
   2. The symptoms tracker is perhaps the most important step towards adding appeal to the app as it is the computerized calculations that, combined with the information and necessities of the above three parts, takes out a large amount of user-effort, and an important first step towards making this app *well-rounded.*
5. Nutrition Calculator
   1. Similarly to the reasons for why the symptoms tracker is important, the GERD-Based Nutritional Calculator is another large attraction for users to download our app. It is a pleasantry feature, but still very helpful at the same time. The nutritional calculator in itself is the main feature of this tab and therefore takes fifth place in level of importance.
   2. In comparison to the other functions of the three main categories, the nutritional calculator is the one that this tab cannot do without; a meal planner function relies and depends upon the nutritional calculator, and as for the fitness section of this tab, a healthy diet with good nutrition makes up 50% of the necessary requirements to make progress with your personal fitness.
6. Full-scale Meal Planner (for various meals throughout the day)
   1. As a dependent of the above (the nutritional calculator), this is one that is still a useful feature and has it’s purpose for being included, however able to be left out if time or resources were an issue.
   2. With that being said, being a mobile phone app, the full-scale meal planner could also be added on in a later update post-release.
7. Health and Fitness component
   1. Very much a utility, the health and fitness component is the one part of the app that does not really relate to GERD, more so brought into the ideas with thanks to the fact that GERD can affect a persons’ body weight. It is a combatant section of a singular symptom of GERD, and admittedly, even if it was included, it may not be as helpful or thorough as other apps which are designed specifically for health and fitness.
   2. For this reason, if we did not have adequate time/resources this would be the first component that gets cut out.