Part 2 Interim Report

# 2. Literature Review

## 2.1. Introduction

In this chapter, research into areas related to nutrition and dietary needs is the priority. These areas include the different industry solutions, different types of technology applicable to domain area, other useful strategies or research relating to the project aim and studying technical solutions provided by other college students relating to the domain of interest. How the potential solution would be applicable to the target user would also be explored here too.

## 2.2. Alternative Existing Solutions to Your Problem

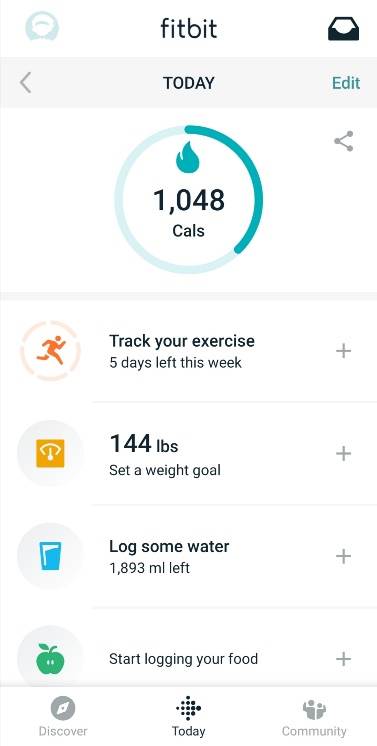
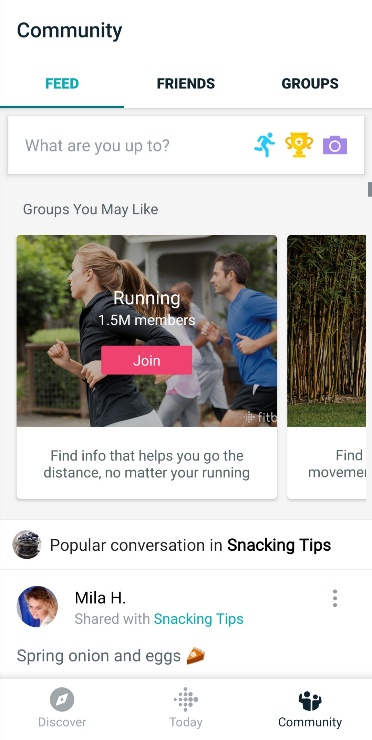
Two alternative solutions researched into were “Fitbit” and “mySugr”. Both were found on the “Play Store” for the Android devices and so are mobile applications. When assessing the applications, a comparison between the goal of the team behind the application and the app’s functionality was conducted combined with evaluation of the “UX”, “Design” and “Ease of use” for overall critical review.

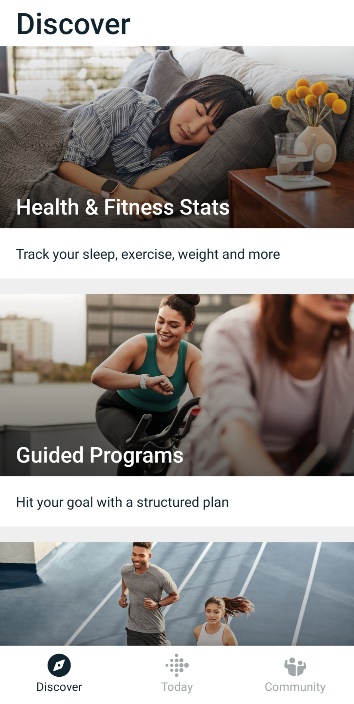
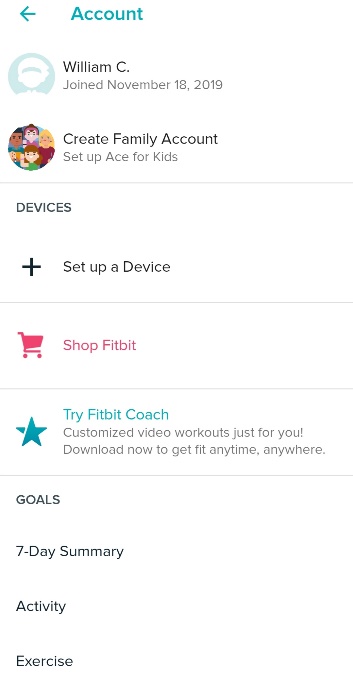
**Fitbit**

According to Play Store Application specification, Fitbit “is dedicated to helping people lead healthier, more active lives”. The application main functionality is logging key information, such as the diet, water intake, exercise tracking and a weight goal. Through all these activities, Fitbit assists the user in monitoring the physical condition for overall improved health, which incorporates sleep, eat, exercise and repeat. Fitbit also monitors the heart rate through syncing with multiple external devices, such as Fitbit watch, designed to track such details.

The overall design of the mobile application is clean and smooth. However, it is not easy to use. Parts of the design interface do not follow conventional operational standards in its attempt to be unique, such as clicking on the user profile picture to access the navigational tool. Another aspect is the logging of the data, designed as part of feature usage specification. Because in-depth knowledge of the input such as calories is part of the requirements, the standard of ease of use would be reduced heavily.

This would make the user experience moderate to a disappointment for the average user, as most would not have the knowledge at their depth. The application is catered to specialists or team for an athlete as the typical user.

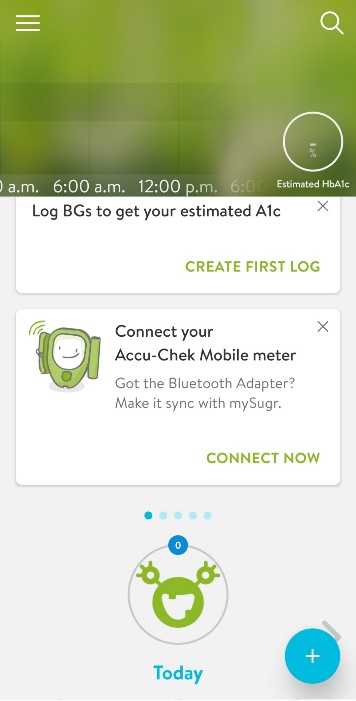
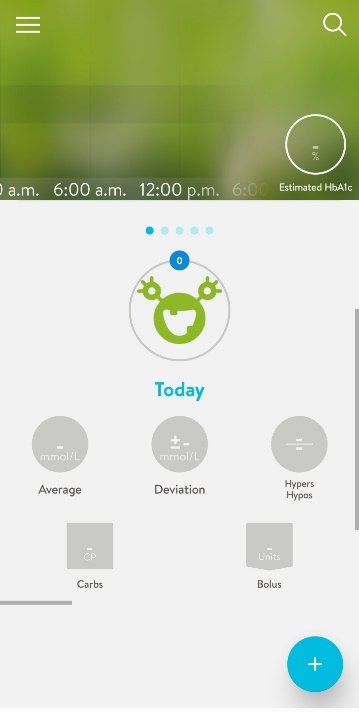
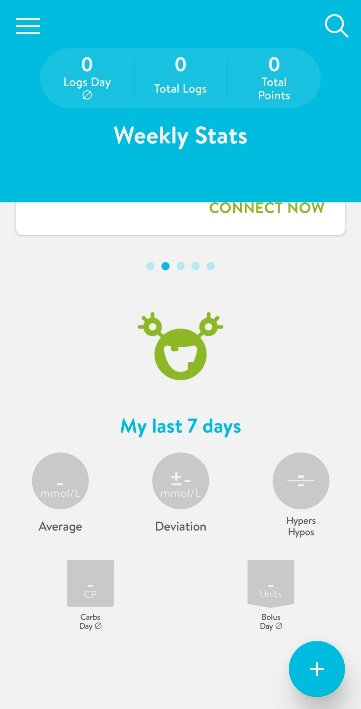
 

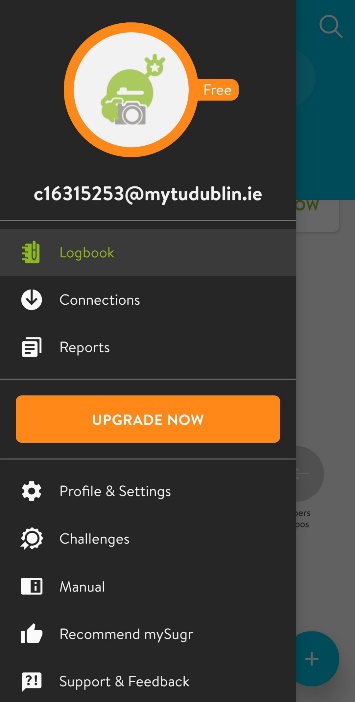
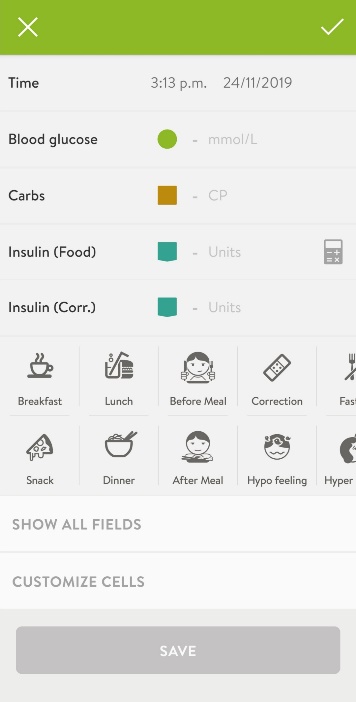
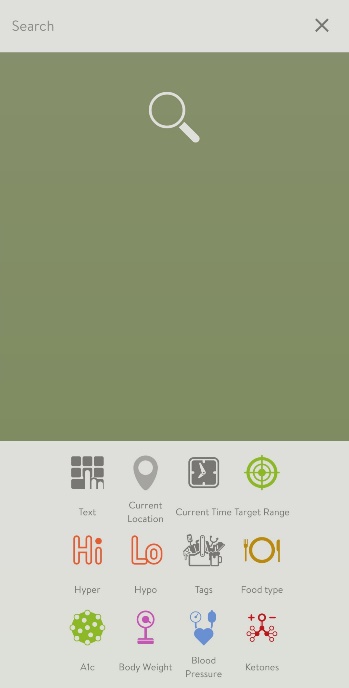
**mySugr**

An app “to manage your diabetes and HbA1c”. It was ranked “the top diabetes app by Healthline 3 times”. The functionalities of the application are access to easy and personalised dashboard (including diets, meds, carb intake, meals, blood, glucose etc), clear blood sugar level graphs, estimate HbA1c, motivating challenges and feedback, medical analysis (daily, weekly and monthly), detailed reports for the doctor and secure data backup, which incorporates regulatory compliance, quality and safety for the user.

The design of the application is simple yet smooth and intuitive. The graphical element grabs the user attention to return and keep using the application, while at the same time using familiar toolkits and standards for minimal learning curve. The ease of use is at medium level, as the complex area of the application is the logging of diabetes. This requires abundant knowledge and insight into the diabetes domain. Otherwise it is simply enough for anyone necessarily needing it.

The overall UX for the application is only a level higher than the expected standard. From a design and ease of use, the UX is pleasant for anyone to use. The complexity area, which is the logging aspect of the application, is the only critic area of the UX and area to improve on.

**Overall Evaluation of Industry Mobile Applications**

The areas to be covered for overall evaluation are UX, functionality, design and ease of use. Regarding mobile applications in the nutritional fields the evaluation varies. The functionality requirements for the application, such as fitness or nutritional deficiencies, have been met for the user.

The design varies. In some applications, conventional standards are followed, which minimises learnability simultaneously with maximising usability. However, the learning curve are not low for someone who never used apps like it before, which may put off non-technical proficient users.

Ease of use, regarding the core aspect of the applications, are moderate to low. This is due to the necessary in-depth knowledge of the area the app was designed for, such as logging nutritional data, which is the heart of the application. These specifications are not something ordinary people would have at hand, which would hinder the overall user experience. All other design decisions are either easily learnable or expected to be known beforehand.

The UX overall, because of the dependency of the logging of the data, is moderate and requires patience as specific measurements are needed for the app optimising.

**Conclusion**

The application functionality and design are universally catered towards specific user group. They do not expand the UX to generic users. As a result, the focus of the application for the project should be the UI design to allow for generic input rather than specific. This would improve the UX and ease of use combined with giving a feature to make the application stand out.

## 2.3. Technologies you’ve researched

Programming languages, operating systems, etc.

## 2.4. Other Research you’ve done

Domain specific research

## 2.5. Existing Final Year Projects

## 2.6. Conclusions