**Reflective Essay TCC3141 Assignment by CloudFive**

**Teamwork**

1181101768 Loong Jiehyi

For this assignment, we are required to develop a working prototype of BMI mobile application with implications of cloud storage. At first, we encountered multiple problems when determining the functionalities of application. However, we managed to resolve that problem by discussing approaches and goals together as a team and contributed to BMI that could be for both child and adult along with a conversion unit and related graphical representation. Besides, as previously all of our team members are less experienced in cloud related subjects, thus, we have experienced a rough time at the beginning of the assignment. Nonetheless, we have been able to overcome all the adversity by constantly discussing the ideas and the solutions together and helping each other throughout this project. The bond and collaboration between all members have made this assignment possible.

1191301993 Chang Jia Xiu

In these three months, our team members have worked tirelessly to ensure that the full project is done. We discuss with each other throughout the process, starting with project planning and fair contributions are allocated to each of the members. Our collaboration is enjoyable and we always have some meetings when there are bugs in this project. In conclusion, we had a very pleasant experience and had learnt a lot with each of the team members.

1171103531 Grace Ng Yee Lin

From this project, I had learnt to work as a team to create an app that is connected to a cloud database. Other than the technical side, I had also learnt to communicate with my team members when we are facing difficulties. Working in a team is made more efficient by having cloud services such as GitHub as the version control platform. By working as a team, the workload of each individual is lighter and more ideas are being discussed.

1181101110 Pendy Tok

By involving in this project as a team, I have learnt that teamwork makes the dream work. I would say that this project is a task that one person can finish by him/her alone within a longer duration, however, there must be a reason why we are assigned as a team. I have learnt that being a team allows discussion to happen, and discussion allows sparks of innovative ideas as everyone contributes ideas from their unique perspectives. Besides, there is another distinct feature of being a team. It allows us to achieve milestones easier and faster, given that five times more commitment was put into this project.

1181303521 Phuah Way Lynn

In this assignment, I have learnt how to communicate better with my team members in more efficient ways. Working with them also helps to pool more ideas and think up better solutions to any problems faced in the assignment. As a team, doing this assignment together makes it a lot easier to handle and saves much more time when it comes to working on the assignment tasks.

**Roles and Contribution**

1181101768 Loong Jiehyi

As the leader of the group, my role in this group is to ensure task distribution between all members is equal. Additionally, communication is important for teamwork. Hence, I will always be there to answer or resolve any problems or questions faced by my peers. For this assignment, I have performed testing and developed functionalities of the conversion unit of BMI besides helping other members with their part. I also contributed and performed checking on all related reports, prototypes, and manuals of this assignment before submission.

1191301993 Chang Jia Xiu

For this assignment, I have done the login and registration of the BMI application. The input for the registration included variables such as name, age, gender, password with confirmed password. The variable age and gender is vital in this application as it will be used to determine the category of BMI calculation as child and adult BMI both have different ranges in determining the BMI result. For the variable of name and password, it was important for user’s login to ensure right authorization was given to the right user and avoided the issue of duplicate registration as well. The users are also required to type the password twice to avoid typos and users are also having greater chances in remembering their password.The database was stored in Firebase which is a real-time cloud-based storage with TinyDB to retrieve and check related information when a user logs in.

1171103531 Grace Ng Yee Lin

For this project, I have done adding the new functionalities for the BMI app as well as enhanced the UI. Firstly, I have summarised the BMI ranges as provided by the CDC growth curve for child BMI calculation. I have also added the suggested BMI to be gained or lost if the user does not meet a normal BMI range according to their age and gender. On the BMI chart page, I have added the functionality to show the child's BMI table if the user is a child. The table shown also depends on the child's gender. These include retrieving the local or Firebase information from other pages through TinyDB.

1181101110 Pendy Tok

I was assigned the task to create a graph for this BMI app. There are only two graph options available: bar plot and line plot, as the suggested extension, chartmaker, has limited features. However, it is not an excuse that stops us from creating a meaningful plot. To address the issue of being overweight or underweight amongst adults, we produced a multi line plot with the expected BMI change across six months by referring to the suggested maximum weight loss per month, 3.6kg (<https://www.healthline.com/health/food-nutrition/weight-loss-in-a-month>). Some calculations were made before we display the expected BMI change across six months. Besides, I tried creating and connecting firebase with MIT app inventor at the very beginning for everyone's usage. I also uploaded the aia file on my side onto the GitHub platform for sharing purposes.

1181303521 Phuah Way Lynn

In this assignment, I have added the ranges of child BMI for ages 2 to 20. As a child at different ages, the BMI will change, therefore for each age, the BMI ranges were separated into 4 categories which were underweight, normal, overweight and obese. The BMI of children was also calculated based on the gender of the child of different ages. Suggestion of the BMI to gain was also included. By working together with Grace, the values of the children's BMI were made sure to be standardised by referring to the CDC growth curve for children's BMI. In addition to that, checking and testing were also done to ensure that the BMI ranges were of the correct value.