**IM3080 Design and Innovation Project (AY2021/22 Semester 1)**

**Individual Report**

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Group No: \_7\_

Project Title: \_joiNTU\_

**Contributions to the Project** (1-2 page)

For this project, I have mainly contributed to the booking system, registering of user profile, the personal chat function as well as the users’ online status.

Starting with the registration of the user profile, I made sure that the user’s details such as their name, school and course are able to write into the Firebase after they are done creating an account. With that, my group mates can create their own account and proceed to link to other functions.

For the booking system, I have made sure that the booking information page can read from the Firebase all the bookings that the current user has booked, not overlapping with previous bookings. I have decided to use the intent function to carry the term ‘count’ to all the booking pages. With ‘count’ acting as a counter, once the user has finished booking a timeslot, the ‘count’ will plus one. This ‘count’ will be the first child() before all the booking information that the user have chosen is added in.

I have also made the colour of the buttons for the tables to change whenever the user press on the whichever table that they preferred. I have coded it in a way where all the tables will change their colour when one of the tables is selected. For example, when the user press on ‘Table 1’, the rest of the tables will change to light blue while ‘Table 1’ will change to dark blue.

For the personal chat function, the messages that were inside the Firebase were not able to display on the page, hence I managed to let the chat page read all the messages that the current user have with the friend he is chatting with.

For the online status of users, I have implemented it for the Chats function and it will only show the user being online to his friends when he have entered the Chats page. I have also implemented the Calendar function where it will show the user’s last seen timing when he did not enter the Chats page or when the app is OnPause().

**Reflection on Learning Outcome Attainment**

**Reflect on your experience during your project and the achievements you have relating to at least two of the points below:**

1. Engineering knowledge
2. Problem Analysis
3. Investigation
4. Design/development of Solutions
5. Modern Tool Usage
6. The Engineer and Society
7. Environment and Sustainability
8. Ethics
9. Individual and Team Work
10. Communication
11. Project Management and Finance
12. Lifelong Learning

Point 1: Design / development of Solutions

One of the problems that I have faced was trying to record multiple booking information into our Firebase. The booking information for the user was always overwritten whenever we decided to add in new tables, timeslot or venues, erasing the old booking information that the user had initially booked. This meant that at that time, we were only able to record one booking information per user, which was not something we were trying to do. To solve this problem, I decided to add a counter system where it will count every booking information. By adding the counter in front of the booking information in the Firebase, new booking information can be added into the Firebase, letting us keep a record of all the booking information that the user has booked.

Point 2: Problem Analysis

Initially, the personal chat function where the user can message his friends are supposed to be similar to its counterpart, where it can display all the messages that the users have sent. However, when we load the chat between two users, the page is not able to detect the information loaded inside the Firebase. This meant that instead of showing the conversation between the user and his friend, only the layout of the chat was displayed. Diving into our codes, we realised that the way we typed inside our codes is a little different from the Firebase as it was trying to snapshot something which was not even in the Firebase, which explains why the page could not retrieve the data. Thus, we decided to edit our codes such that it will snapshot correctly.­