CSCI-5708 Mobile Computing

Group 1

<u>Project Design</u>

DalSocial

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ABSTRACT

Our team aims to develop a mobile app that facilitates solid social interactions. The software would enable users to connect with others who have the same interests. This will encourage users to make friends, showcase their professional or personal work, and participate in activities that interest them. The purpose of this platform is to foster a sense of community. Users will be inspired to broaden their horizons, go past their comfort zones, and work together to achieve their goals. The user has the option of selecting how many individuals to meet. The other applications lack these features; thus, our app gives users the option to choose between group meetups, solo meetups, event meetups, and search for meetups based on the circumstances in which they want to meet.

I. INTRODUCTION

People lost touch with social connectivity during the COVID epidemic, which resulted in a lack of emotional support and face-to-face interaction. It became challenging to return to normal. Therefore, it's crucial to surround yourself with like-minded individuals during tough times. How can you locate individuals who share your interests and job goals, though? The simplest solution would be to look for that person using an app that allows you to do so whenever and wherever you desire. The primary purpose of the software is to let users connect with others, establish friendships, find support, expand their businesses, and pursue their interests [8]. There are other apps that already exist and encourage social interaction, but the one we'll create enables users to participate in group and event meetups in addition to solo meetups. We hope to implement these functionalities and provide users with the option to share their profile information with others through QR code.

II. USERS

When talking about the target audience, we look at the rule of following the big C, which is the context. The application aims to involve students going to universities, professors, and other event organizers, friends who would like to meet up as they were interested to talk about something, strangers who have similar interests.

III. DATA MODEL

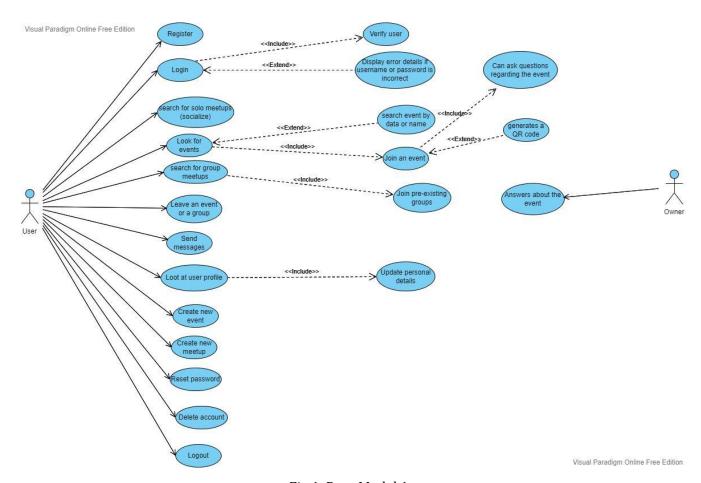


Fig 1. Data Model 1

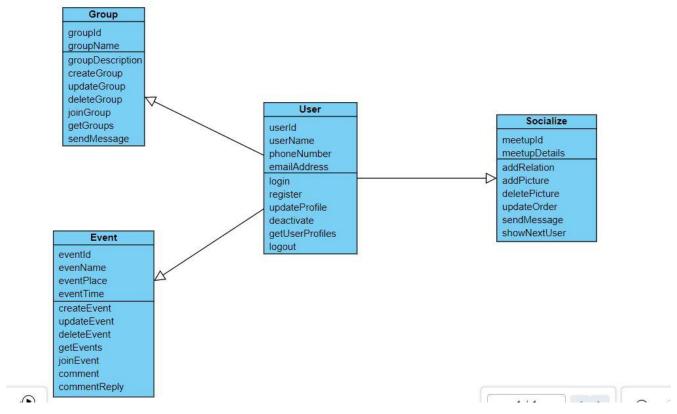


Fig 2. Data Model 2

IV. VIEW

1. Sitemap

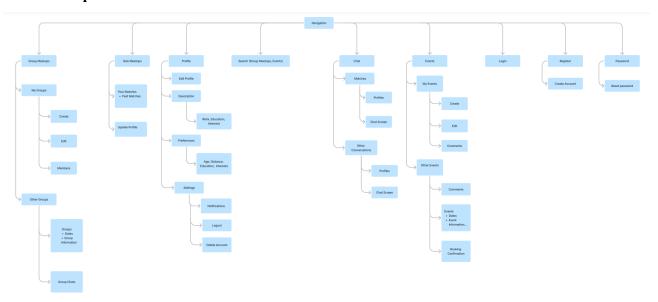


Fig 3. Sitemap

2. Wireframes

2.1 Login

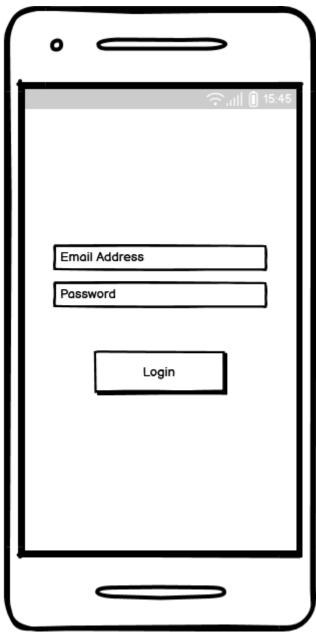


Fig 4. Login Wireframe

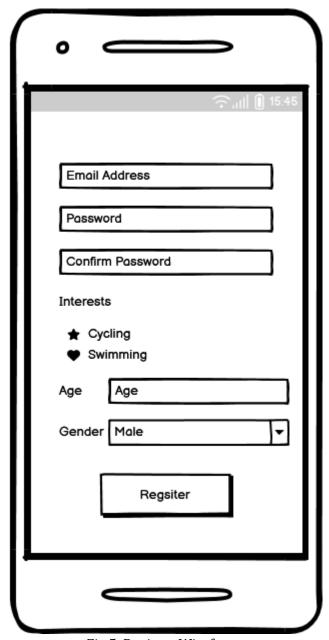


Fig 5. Register Wireframe

2.3 Profile

Following are the profile wireframes,

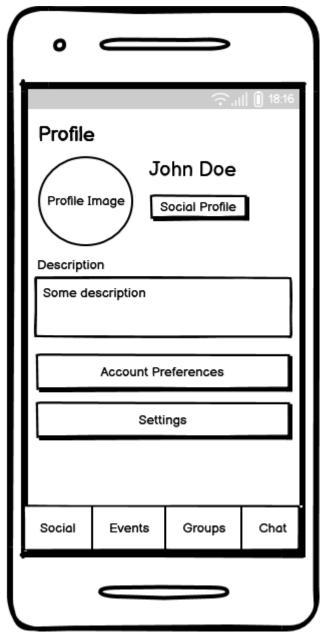


Fig 6. Profile Wireframe 1

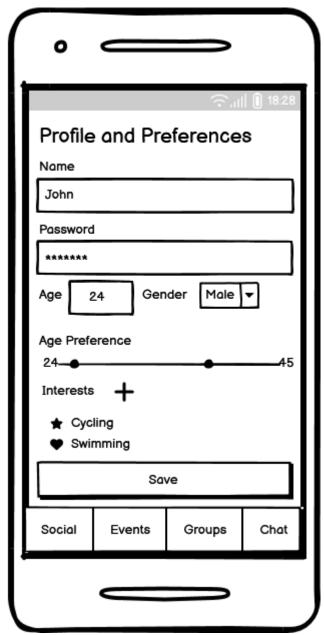


Fig 7. Profile Wireframe 2

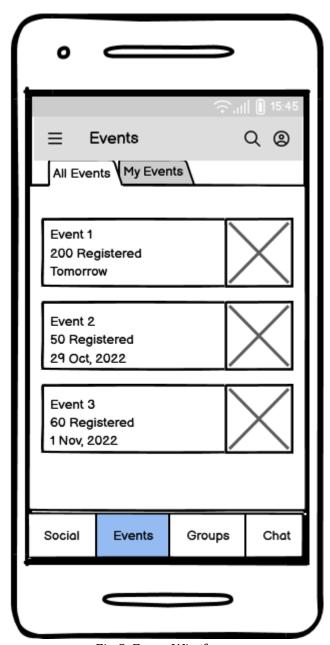


Fig 8. Event Wireframe

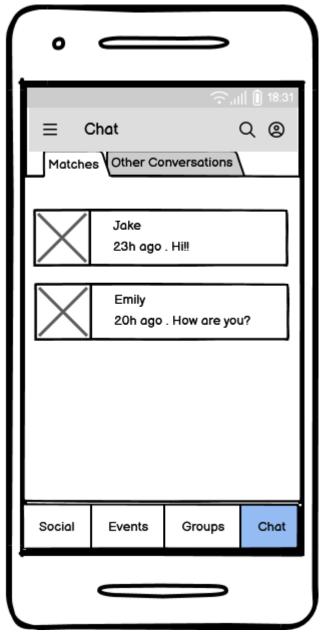


Fig 9. Chat Wireframe

3. Storyboards

3.1 New Registration

User is excited about the new application which is going to provide him/her with an opportunity to find new people/event along with being able to organize events.

The first step user takes is to download the mobile application and register on it.

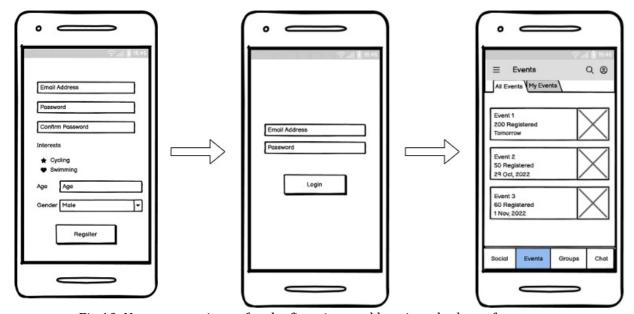


Fig 10. New user registers for the first time and logs in to look out for new events

3.2 Solo Events

User wants to go to an event of their interest. Therefore, they login to the app and try to register for the event while checking out other available features on the app like QnA regarding an event.

The Storyboard flow plays out in the following manner,

- i. User logs into the application
- ii. Checks out the list of events hosted
- iii. Clicks on one of the event in which they are interested to register
- iv. Checks out the QnA page of the event
- v. Comes back to the event description page
- vi. Registers for the event

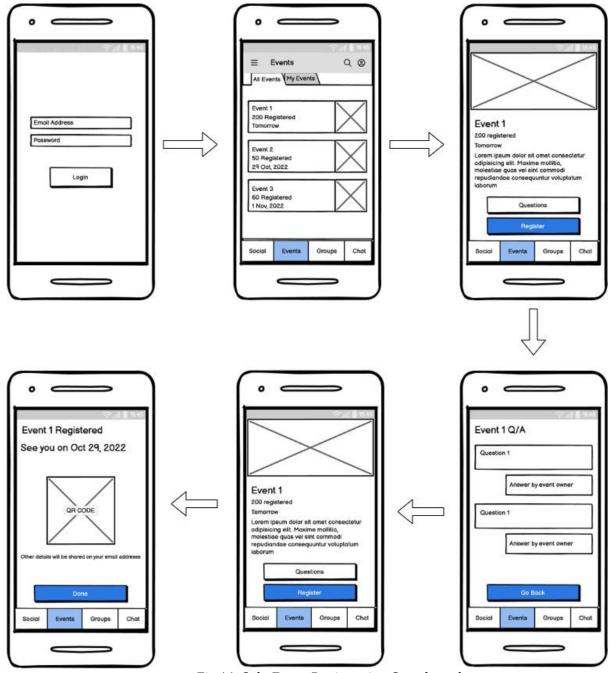


Fig 11. Solo Event Registration Storyboard

3.3 Group Events

User is looking forward to join a group to have meetup with the group that he/she is interested in and would also like to check out the aforementioned announcements.

- i. User logs into the application
- ii. Checks out the list of group meetups hosted
- iii. Clicks on one of the group meetups in which they are interested to join
- iv. Checks out the Announcements page of the event
- v. Comes back to the group description page

vi. Joins the group meetup (this opens up an additional feature for them with that group which is that of a group chat).

User did land on the events page after login(as it is considered to be the home page of the application but for the ease of describing event, it is not shown in the below diagram)*.

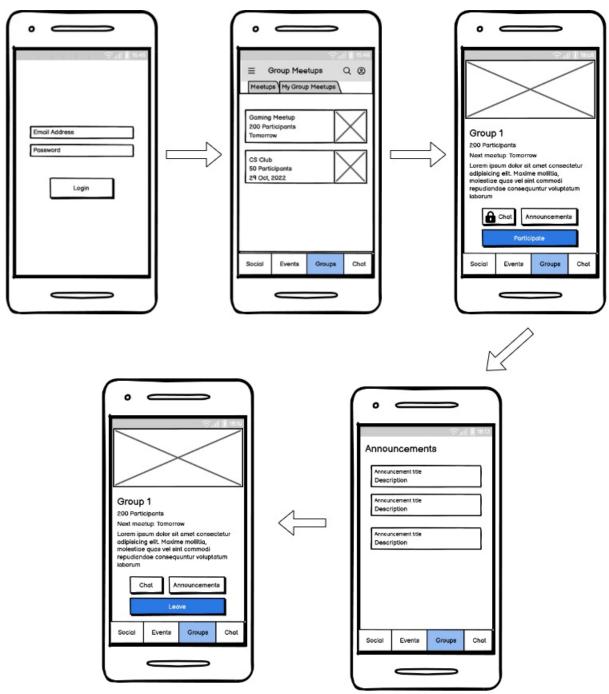


Fig 12. Group Event Join Storyboard

3.4 Profile

User is looking forward to checkout their profile and what options are there to improve it.

- i. User logs into the application
- ii. Checks out the event page (home page)
- iii. Clicks on profile on top right of application
- iv. Checks out their profiles and othe available features like their social profile and account preference.

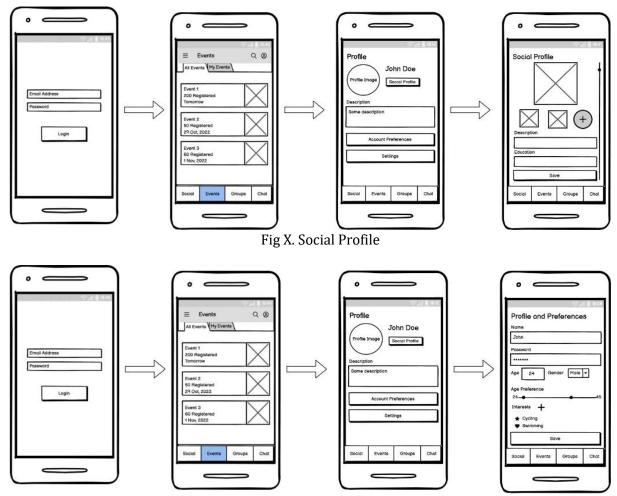


Fig 13. Account Preference

3.5 Chats

Before attending the regular meetups, user wants to talk with their group members and also, along with the friends they have made on the platform.

The flow in the storyboard diagram pretty much sums the complete scenario that a user might go through while using the app to chat.

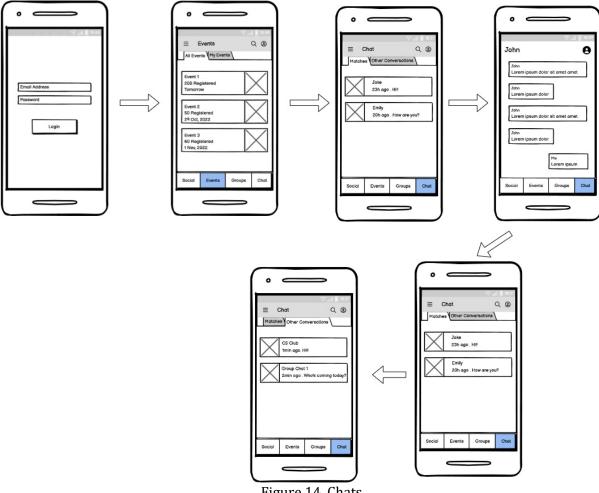


Figure 14. Chats

3.6 Finding People

Finding people has never been this easy, the user uses Social feature of the app the find and accept connection requests after logging into the app

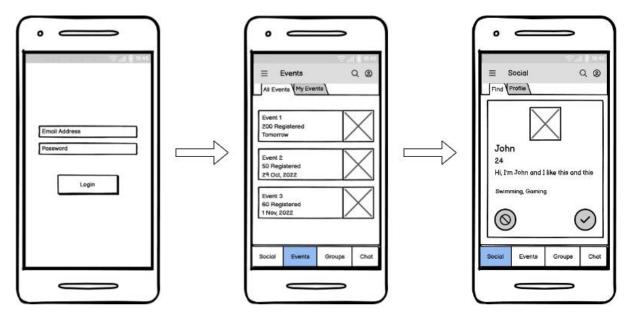


Fig 15. Finding new people with similar interest on the application

3.7 Creating New Events

Users who want to organize an event of their own are also capable of doing so by following the flow of the events that occur in the following manner,

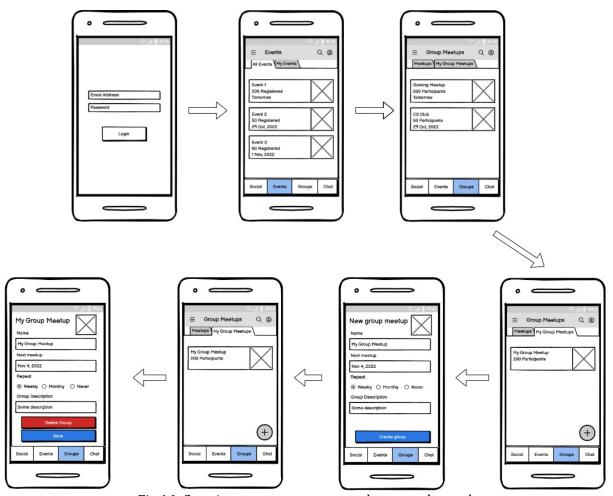


Fig 16. Creating new group meetups by users themselves

V. CONTROLLER

The below is the controller of our project in the form of class diagram:

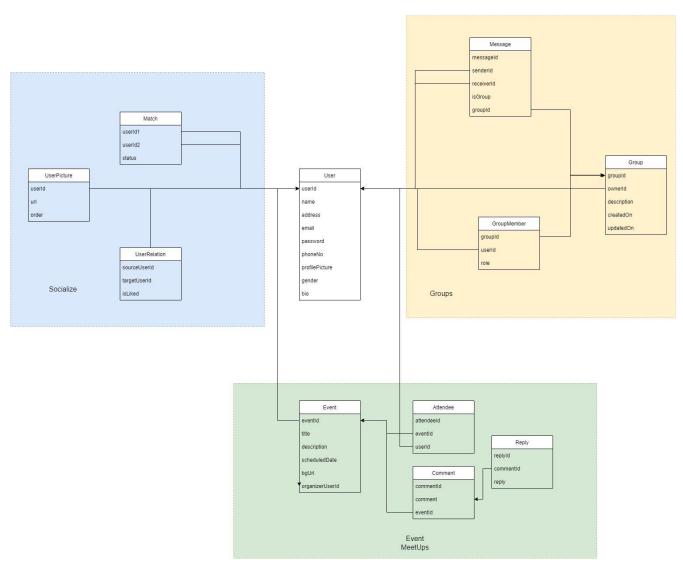


Fig 17. Controller Diagram

VI. ARCHITECTURE

We will be using MVC pattern for the underlying architecture of our application.

The app will have 4 main features: Signup/Login (authentication), Solo meetups, Events and Group meetups. Firebase offers a wide range of tools which could benefit the development of our application in an efficient and fast way.

For login and signup, we will be using Firebase Authentication. It also provides integration with sign-in providers like Google. Since Firebase Authentication creates a unique UID for every user, we can use that to identify each user. After a user sign up, the user information would be stored in a "users" collection in Firestore Database. Firestore is a NoSQL database that works well with real-time data.

Other entities such as events, and group meetups will be stored in their own collection too. Each event/group meetup will have its own document.

VII. RISK ASSESSMENT

Different dangers are connected with creating a brand-new application from scratch. There is a chance that the application could fail even after rigorous market research. There may be several causes. One of the most significant factors may be that an application that the developer finds useful may not be valuable to a large audience. A risk that needs to be managed is the users' lack of acceptance. In addition, none of the developers on our team have experience creating mobile applications. Lack of experience could end up being a risk for the development of our application.

Given the time constraints, it's possible that we won't be able to consult with potential users as we develop our programme. Perhaps we can't conduct the test.

VIII. Timeline

A Gantt chart (See Fig.01) is used to depict the project timeline. It displays various tasks and the time allotted to them over the term, with proper deadlines.



Fig 18. Gantt Chart showing the project timeline

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