



Introduction

Social connection and physical activity are the core of a memorable college experience. However, many students struggle to find peers who share their recreational interests, limiting both **engagement** and **participation**. This project creates a mobile platform that can reduce **social barriers** and **promote activity-based connections** on campus. The goals of this project are to develop a mobile app that connects students through **shared activity interests**, increasing **participation**, and strengthening **campus belonging**.

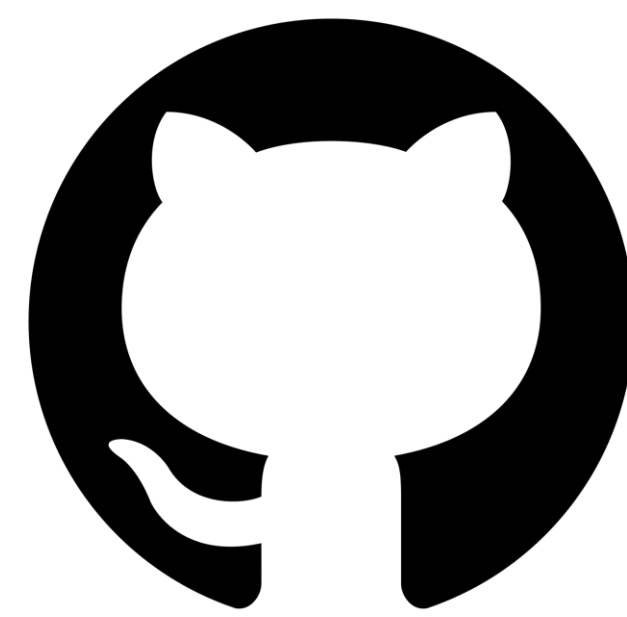
Technology Used



Front End
Android Studio

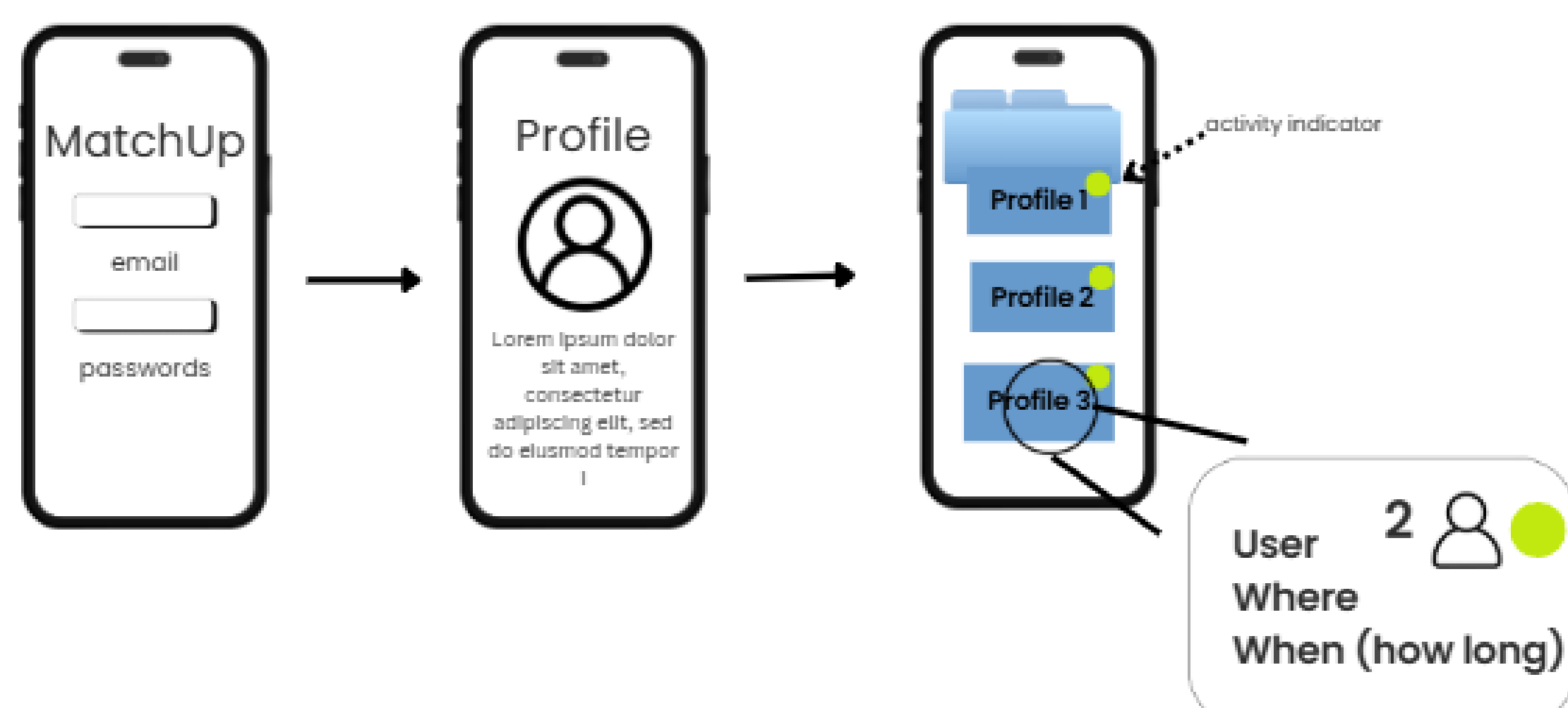


BackEnd
Firebase



GitHub

UI Diagram



How MatchUp Works

Image of Activity Creation

The 'Create Event' form includes the following fields and options:

- Time: 15:00
- Choose Sport (button)
- Event Title (text input)
- Location (text input)
- Select Date (button)
- Select Time (button)
- Max Players (text input)
- Difficulty: Beginner, Intermediate, Advanced (radio buttons)
- Description (text input)
- Create Event (button)

Image of Filtered Activities

Filtered activities list:

- Devin Morgan**: Heading to the gym for a workout! 🏋️
- Melody Jennings**: Heading to the gym for a workout! 🏋️
- Ashley Horne**: Heading to the gym for a workout! 🏋️
- Kaylee Simmons**: Heading to the gym for a workout! 🏋️
- Sean Salazar**: + Create Event

Problems Faced

- Working with Limited Coding and Software Engineering Experience
- Overcoming Challenges with Android Studio
- Learning to Use SSH Keys and Integrate Frontend with Backend Systems
- Debugging in a Complex and Unfamiliar Programming Language
- Collaborating Effectively Using GitHub
- Developing Proficiency with Git Version Control

Future Implementations

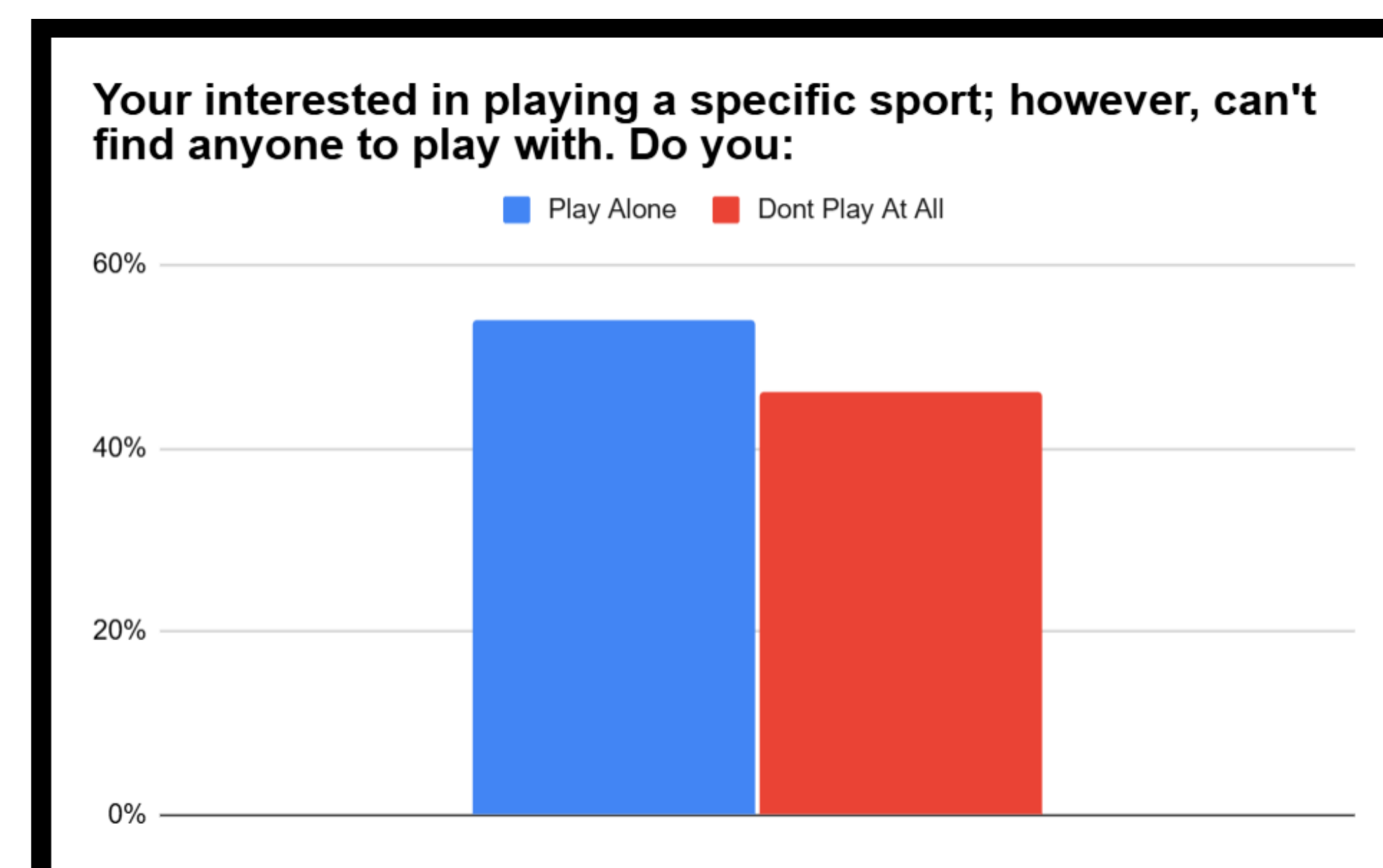
- Real-time campus heat map
- Integrated messaging system
- These will improve safety and increase activity awareness
- Encourages spontaneous participation



Results

- A **functional Android App** that allows users to create accounts, log in, and create and view events.
- A clean, intuitive UI that shows how students can browse sports, join games, and connect with others.
- Feasible integration between the front end and Firebase** for authentication and data handling.
- Over **75 students engaged** through in-person outreach, email distribution, and QR Codes
- Strong Confirmation that MatchUp addresses a **real need** on campus

Student Data



What Challenges Have You Faced Organizing Activities?

- "Don't know people"
- "No Friends"
- "Not having enough people for a real game"
- "Lack of motivation or people to join"

75+ Students answered seven questions about student-run activities

Acknowledgements/References

Instructors: Kyle Ouellette and Dean Sullivan
Image References: Microsoft Images