**CP3407**

**Project Part 1**



**Abhay Anil – JC539324**

**GITHUB link:** <https://github.com/abhayanill/CP3407>

**Project description for non-ICT-technical stakeholders and general audience**

**Concept Formulation**

An application that helps users find similar users who want to play a sport do lack the number of players or a venue to play the game. The application helps the user create a profile with their basic information and helps select the sports they are interested in and asks the user about the days they are looking to play and the location they are looking for, then the application gives the user a list from the server of other similar users on the network who are looking to play the same game around the same location on those given days and gives them a platform to interact with each other.

**Problem Understanding**

Many people want to play a sport but lack the following:

* Not having enough players
* Not knowing the availability of sports venues in their location
* Not aware of the cost to hire a sports venue
* Lack sports equipment

**System Proposal Development**

Systems that can be used are:

* Database storing all the user’s information and retrieving them based on the users searches to give them the result they’re looking for
* Accessing the existing databases of sports venues to give the user cost and availability details of the venues around their location
* Giving users a platform to interact with each other(Messaging)

**Feasibility** **Study**

Similar systems have been deployed by many other Social Media Companies such as Facebook, Twitter, etc, where users with similar interests can form groups based on it. Even other online ecommerce websites use similar systems where the users searches for their required item and are given results based on the search and availability**.**

**Project Goals**

The goal of the application is to:

* Help users find similar users to play a sport with
* Help users find sports venues around their location
* Helps users know the availability and cost of the venues

**User Stories**

**User Story 1:** Tom and 3 other friends live in Kallang and enjoy playing football on the weekends but often don’t have enough players to play. Tom wants to find more people to join their game but does not know how to approach people who live near. Tom is trying to find a way to get more people to join his game but does not have the social skills.

**Host a Game** helps the user create a game for other users/players to join and provides a venue if the users don’t have one already. The user can specify

* The location of the venue
* The number of players
* Date and Time of the game
* The price (Optional)

**User Story 2:** Jim is a software engineer living in Woodlands. Jim comes home from work at 9 p.m and likes to play basketball to relax after finishing work but he cannot find anyone to play at these late hours and often ends up playing alone. Jim is trying to find other players around his home who play basketball at night

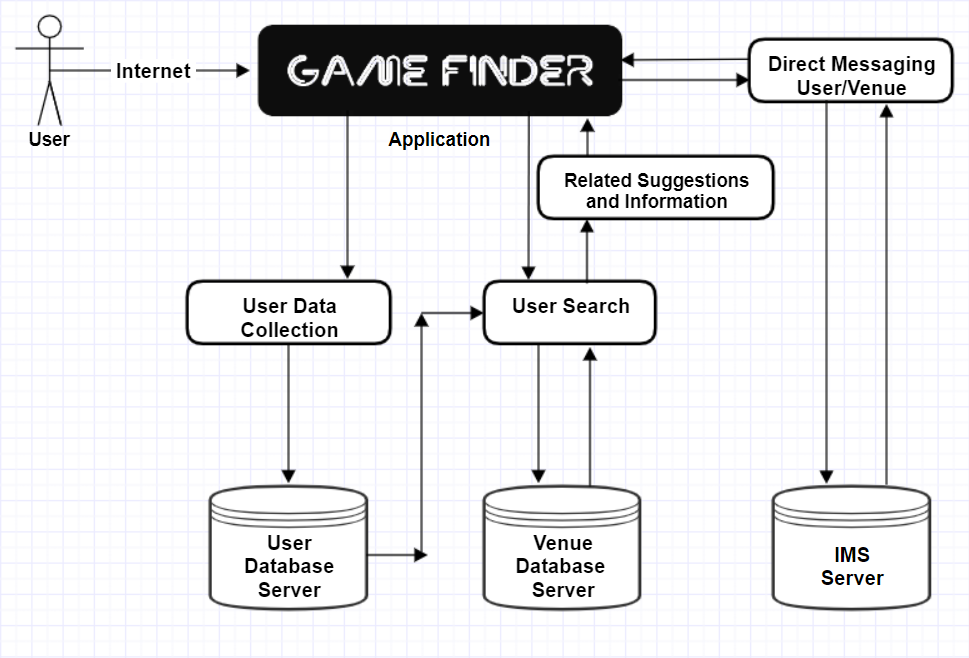
**Find a Game** helps the user find a hosted game with a venue for other people to join. The user mentions his location, sport, date, time and the number of players and gets search results related to the search and the user can choose the most favourable option.

**User Story 3:** John is new to Singapore and is constantly moving around living in hotels till he finds his new home. John enjoys swimming but he doesn’t know how to find places with a swimming pool and how much they cost. John has tried searching online but the searches weren’t very accurate.

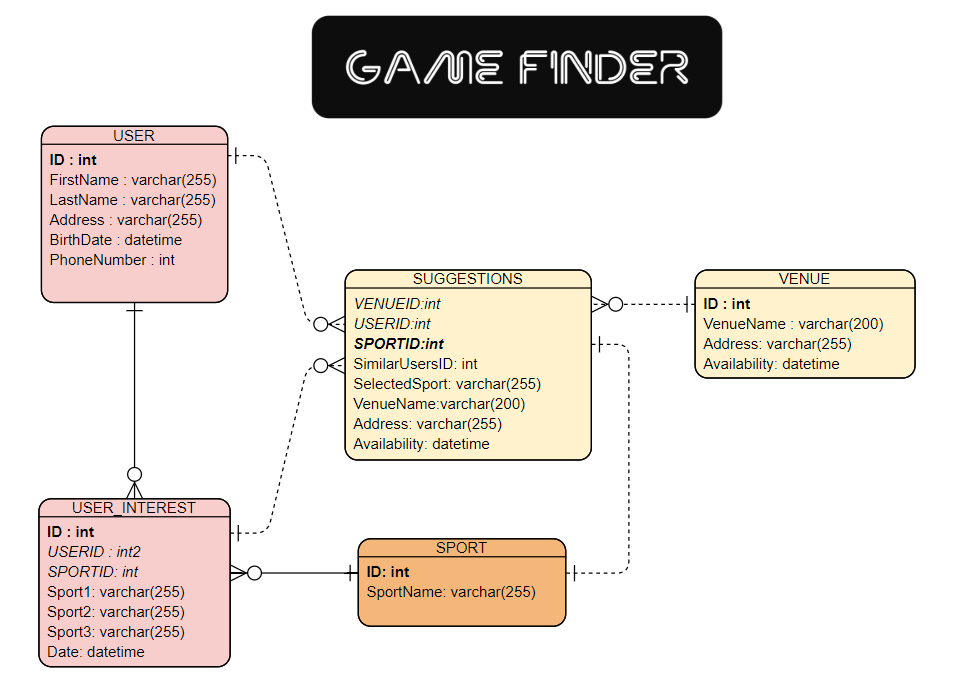
**Find a Venue** helps the user with a list of available sports venues around his location around the time he’s looking to play and the price to hire it.

**Project Design**

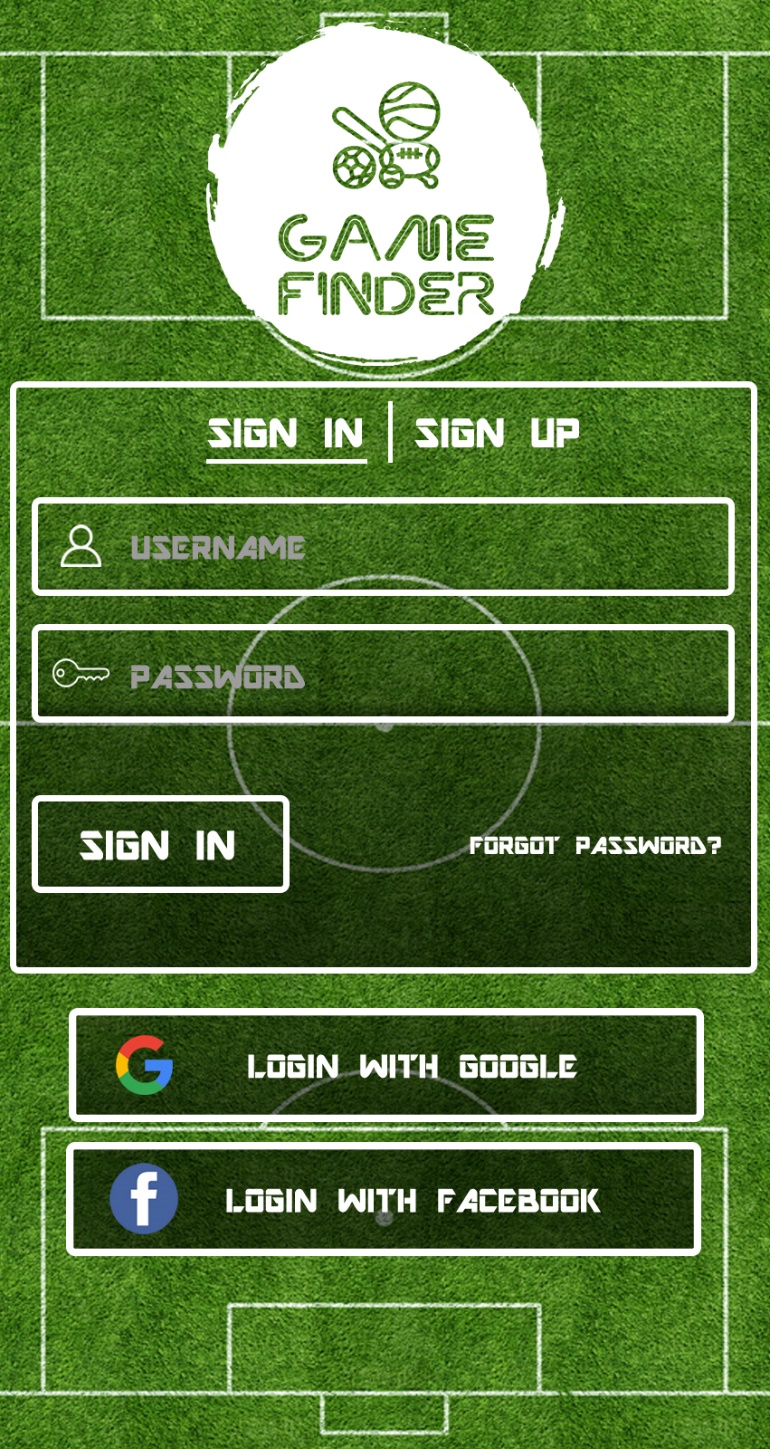
**Architecture Design**



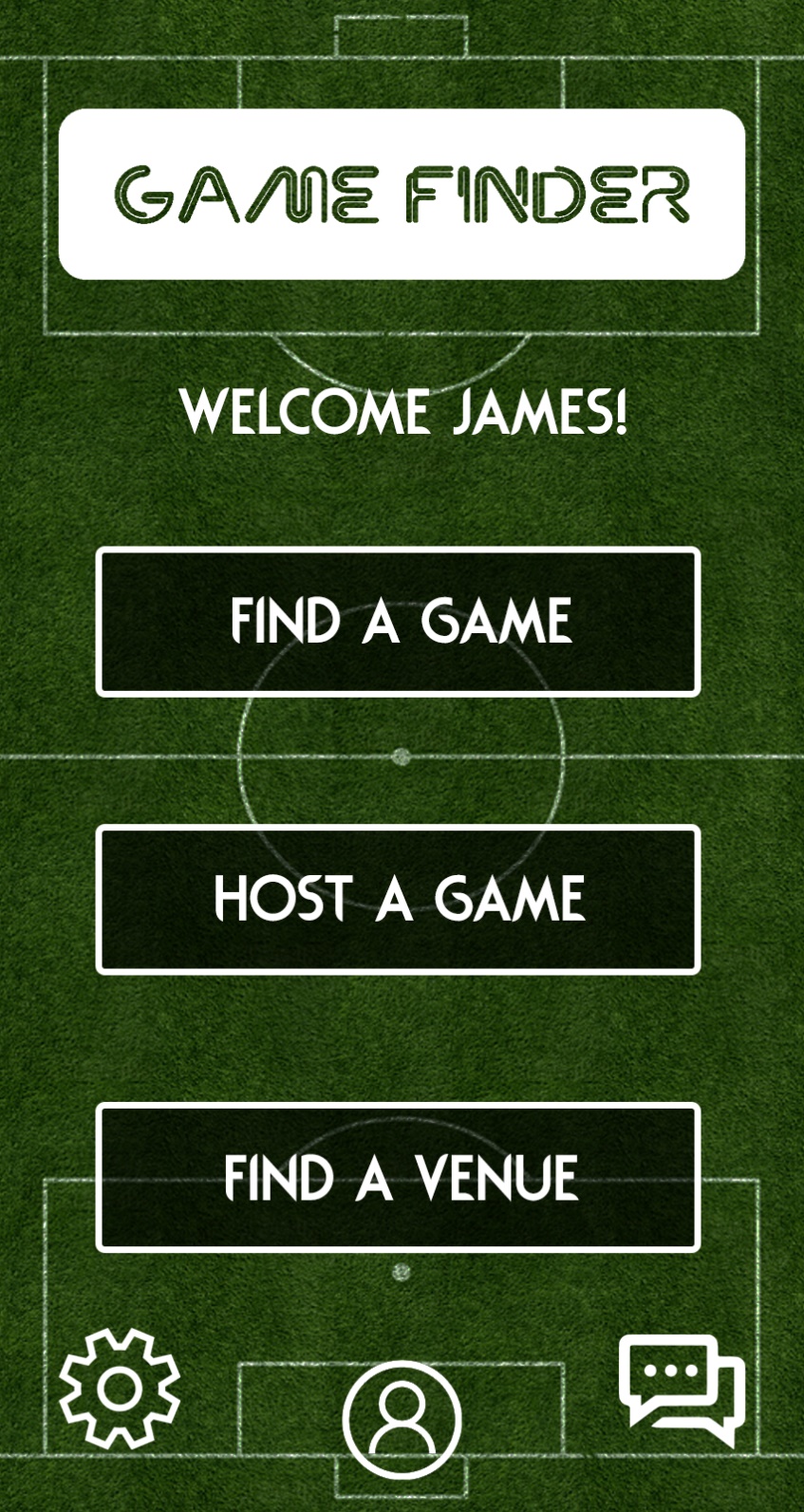
**Database Design**



**Interface Design**



**Login Page**



**Main Page**



**Sport Selection Page**

**Project development and release ICT infrastructure**

Development Environment**: Android Studio**

Programming Language**: Java**

Source Code Repository: **Git Bash**

Version Control: **GitHub**

Project collaboration tool: **Not Required**

**Prototypes made with PhotoShop and Adobe XD uploaded to GitHub**

**Project Planning and Scope**

**Week 7:**

* Create database for user, sports and venues using SQLite
* Create Login page and Home page of application using Android Studio (GUI with Source Code)

**Week 8:**

* Create Sports, Venue and Search page with results based on search from database

**Week 9:**

* Create the messages, settings and users page

**Week 10:**

* Link application to the remote database to store and retrieve data
* Finish application design, testing and debugging