Milestone 4 - Quorra_Legacy

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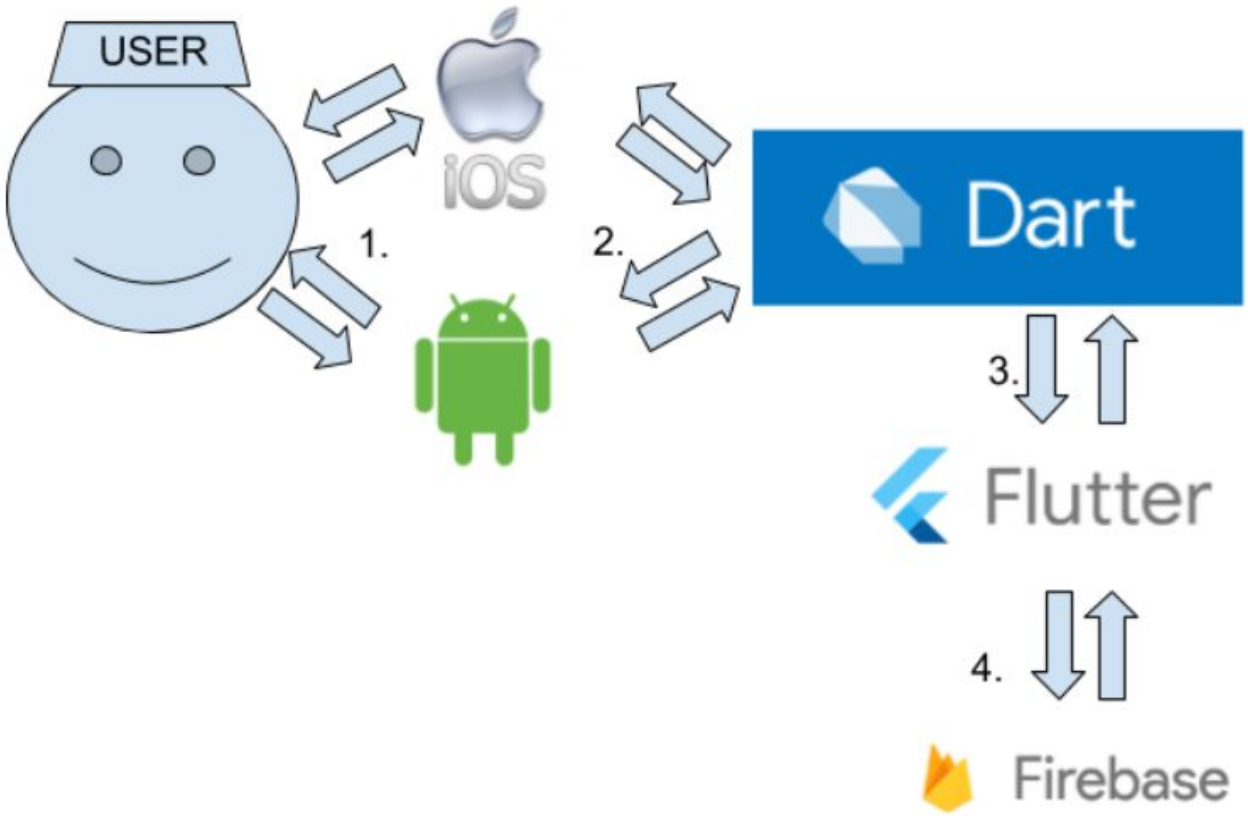
Revised Project Feature List:

- Login Page - ***Priority #1***
    - A page for new users to sign up for the application
    - **Update: Login will include standard email and password registration AND Google Sign-In.**
- App Nav - ***Priority #2***
    - An app-wide implementation of a navigation bar to get to the other features, includes logout and go-to-map options.
    - **Update: Will have standard type navigation bar implemented to increase user intuition and aid with functional familiarity.**
- Game Map - ***Priority #3***
    - Interactive scrollable, zoomable map displaying locations where field activity is tracked
    - **Update: Will integrate Google Maps via Firebase. This will replace our previous map idea, which was a static map with buttons overlayed**.
- Start/Join/End Game - ***Priority #4***
    - The “game” portion of the app. Functions to allow the user to view live game status, create a game, or change a game’s status to in-progress or completed.
    - Allows user to join & leave existing games, after a game is completed show stats of game.
    - **Update: Will implement rules limiting the number of games a user can create. Will prevent an individual user from creating more than one game at a time, and will limit game interactivity to a single location at one time.**
    - **Will include the user’s game history**
- Calendar/Schedule - ***Priority #5***
    - A page where users can schedule a game or see existing scheduled games.
    - **Update: Will display schedule as a list separated by location.**
    - **Users can indicate specific games they plan to attend by clicking “Intending to join to game” button, can undo by pressing same button.**
    - **Will display number of players “intending to join game”.**
- User Profile - ***Priority #6***
    - A page for each registered user showing their name, short bio, user history.
    - **Update: Will include list of “friends” added by user. User will enter other users’ email to add to friends list.**

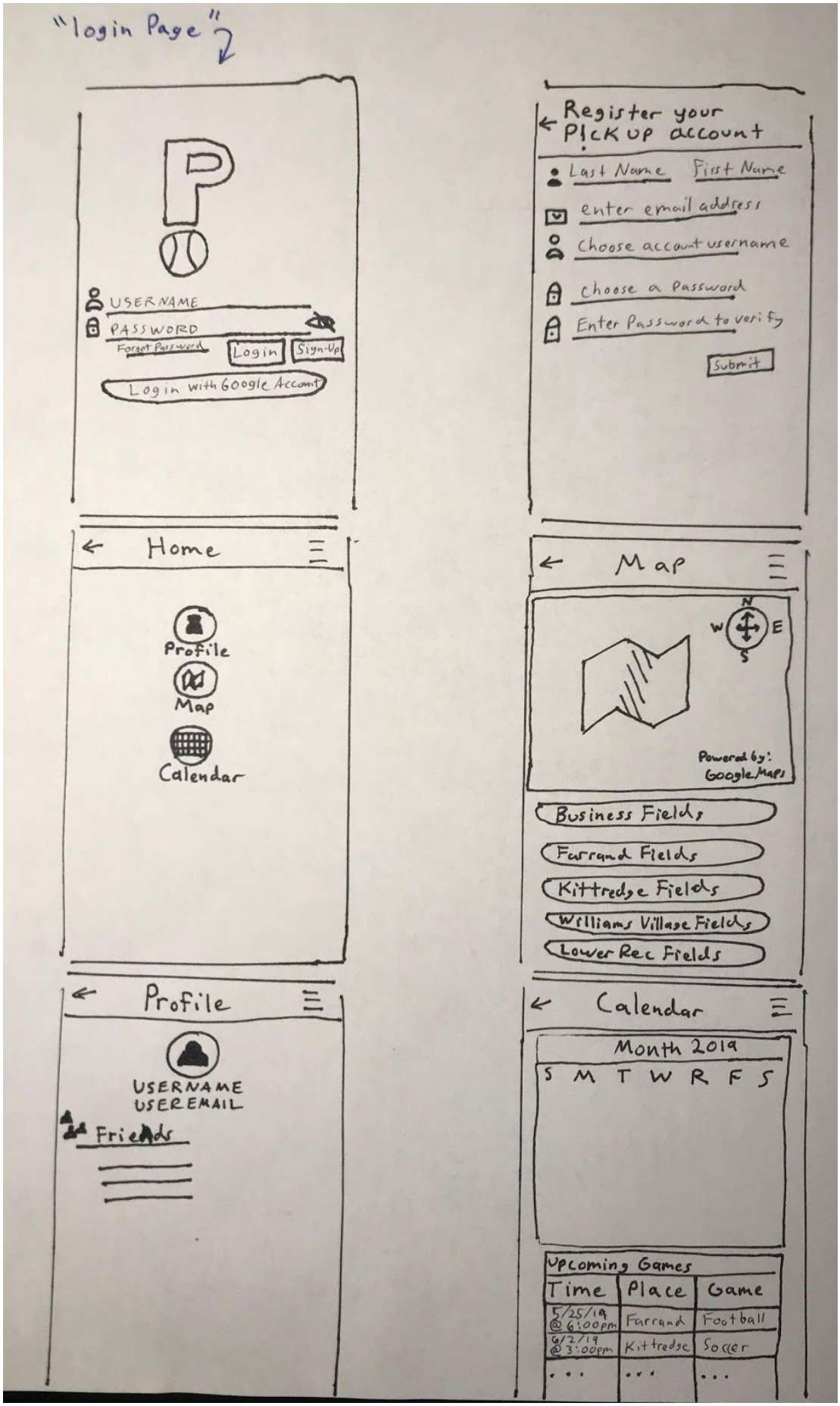
Architecture Diagram

component layer.



1. User Interfaces with app via Android or IOS
2. Dart compiled for Android and IOS, allowing Google's Flutter SDK to populate content as designed
3. App uses Dart code with Flutter packages to communicate with Firebase
4. Integration and Backend powered by Google's Firebase, making database calls and communicating with web services.

Front End Design


"login Page"
USERNAME
PASSWORD
Forgot Password
Login
Sign-Up
Login with Google Account
Register your PickUp account
Last Name
First Name
enter email address
Choose account username
choose a password
Enter Password to verify
Submit
Home
Profile
Map
Calendar
Map
N
W
E
S
Powered by: Google Maps
Business Fields
Farrand Fields
Kittredge Fields
Williams Village Fields
Lower Rec Fields
Profile
USERNAME
USEREMAIL
Friends
Calendar
Month 2019
S M T W R F S
Upcoming Games
Time
Place
Game
5/25/19 @ 6:00pm
Farrand
Football
6/2/19 @ 3:00pm
Kittredge
Soccer
...
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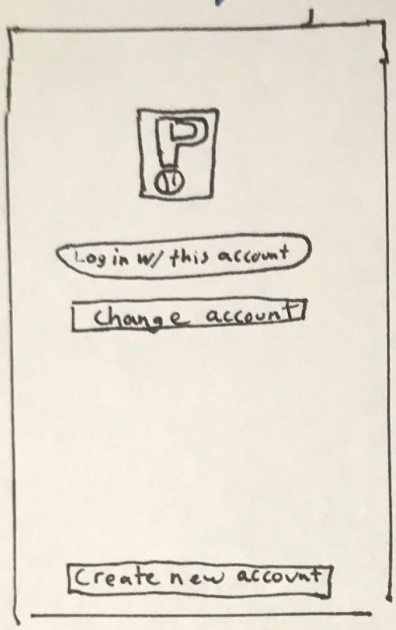
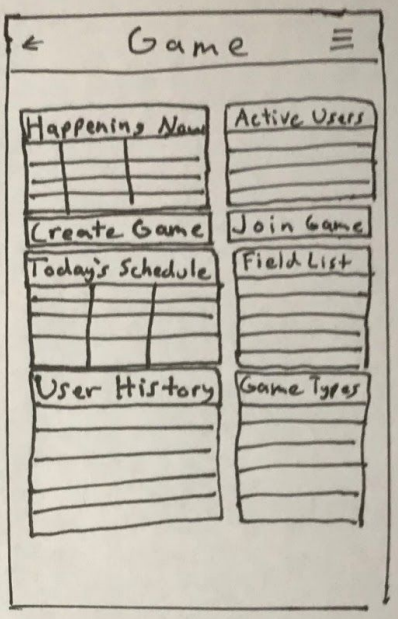
"Pre-login Page"





"←" arrow will return user to previous Page. If user is Home, "←" arrow will prompt for logout or switch or return to app

"☰" will toggle navigation options, which will include: Profile, Map, Game, Calender Home, and logout.

Web Service Design

API.

- Login -
    - Using Flutter API/Widgets including Forms, Buttons, and Routes to enable users to input their email and password for authentication through firebase.

- Sign-up -
    - Using Flutter Form Widgets enable user to register for application use and store information about each user including username, email, and password.

- Navigation -
    - Using Flutter Widgets for a navigation bar displayed on each page allowing users to easily navigated through each page.

- Map and Game -
    - Map is integration of Google Maps web service. Implemented via Firebase. Game status is based off of communication protocols. We will be implementing live status update by communicating with Firebase cloud.

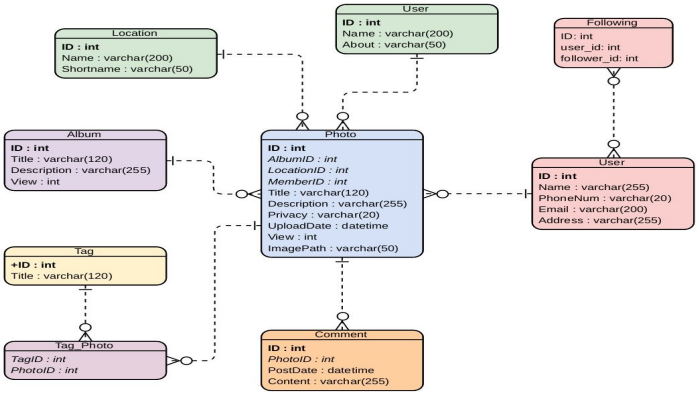
Back End design

- DBMS - delete?
    - Xxx delete?
- Firebase -delete?
    - Xxxdelete?

- NoSQL: Even though with firebase, you get back-end that has already been pre-tailored, it's still limited to its usage. But we need to learn how to structure NoSQL database properly to be more effective in implementing our designs and communicating with the front end.

- In the database, we will store user's personal information using their email as a key value. Along with that, each user will have specific id assigned to them through firebase identification. This will help store multiple users with the same name without any malfunctions.
- We will create our own database which will display sports available as activity through pickup app. We will be using JSON object and dynamically adding users information into the database.
- We will use MapView plugin provided by Flutter. We will use the widget to display Google Map view built on top of Platform View API.

- The way we query our user will be similar to the diagram shown below



Submission format: This project milestone 4 submission should be a PDF named ProjectMilestone4_ included in your git repository containing the specific design items listed above.