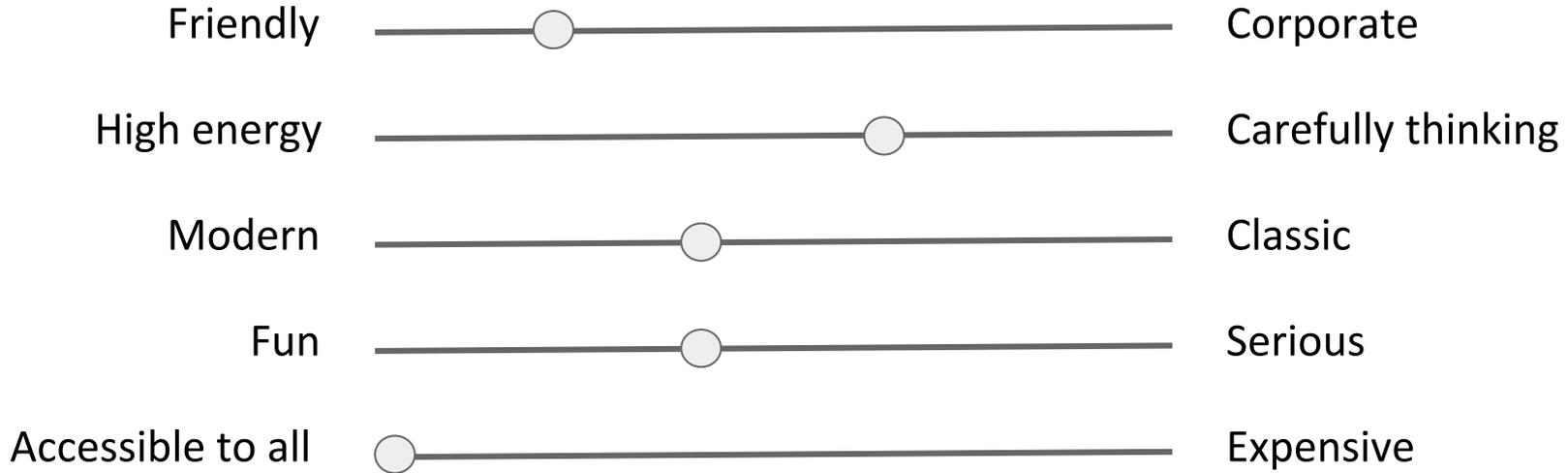


Milestone 2: Gram app

Jacob Morris, Jess Nguyen, Matthew Ostrowski, Andy Xue

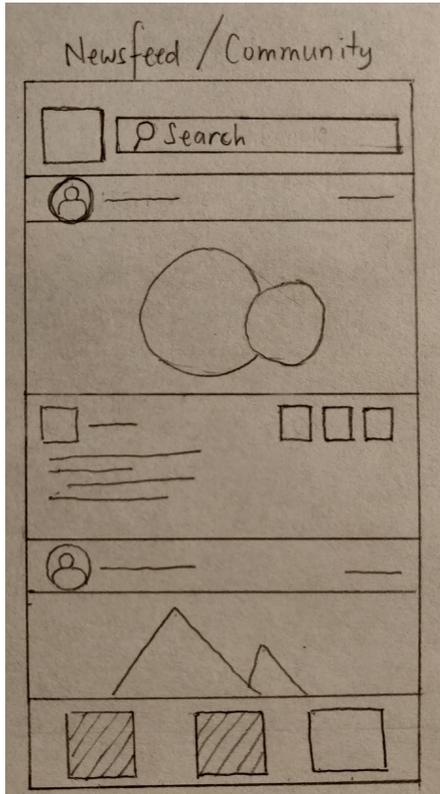
App Personality



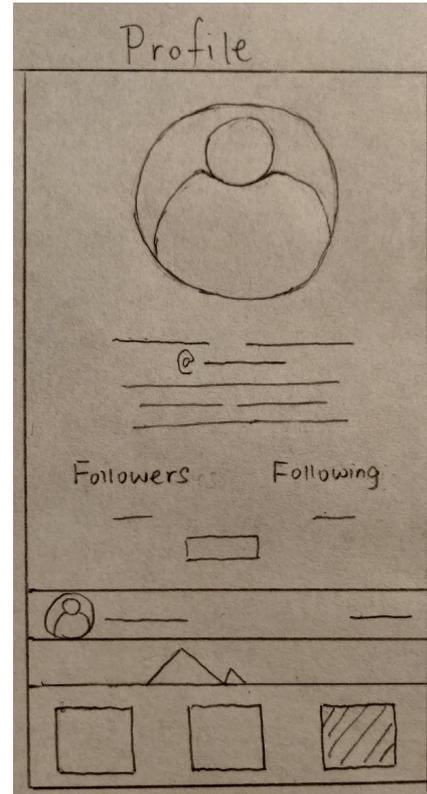
Frontend Design + Justification

- Clean and minimalistic
 - Makes for easy-to-use and intuitive app
- First impression matters!
 - Log In / Sign Up screen should be dynamic and fun
- Muted color scheme (white and light yellow)
 - Don't want to distract user
 - Focus should be on the photos themselves

Wireframes - Low fidelity

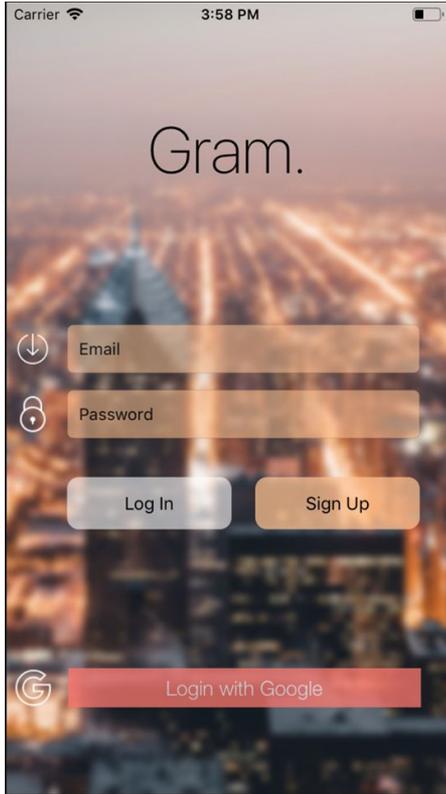


Newsfeed / Community

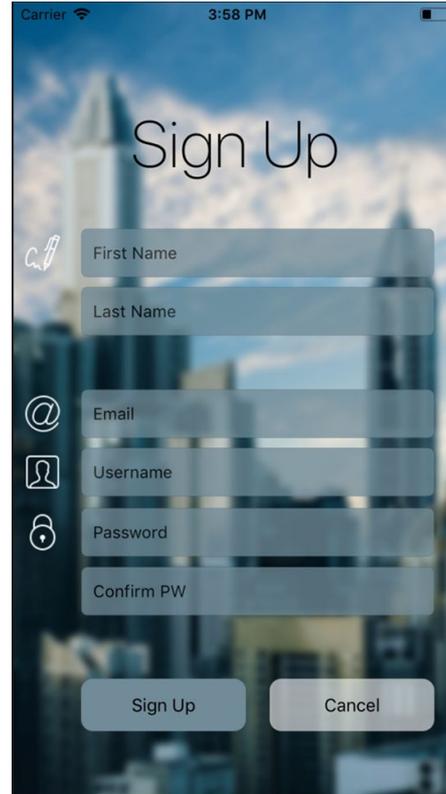


Profile

Wireframes - High fidelity

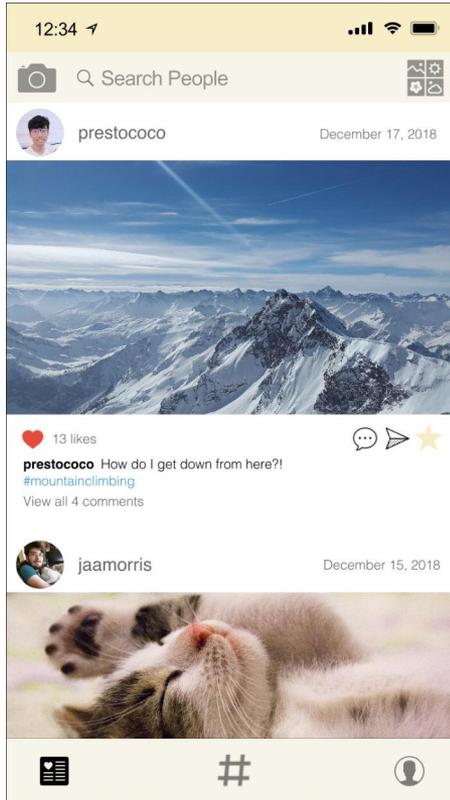


Log In (Current)

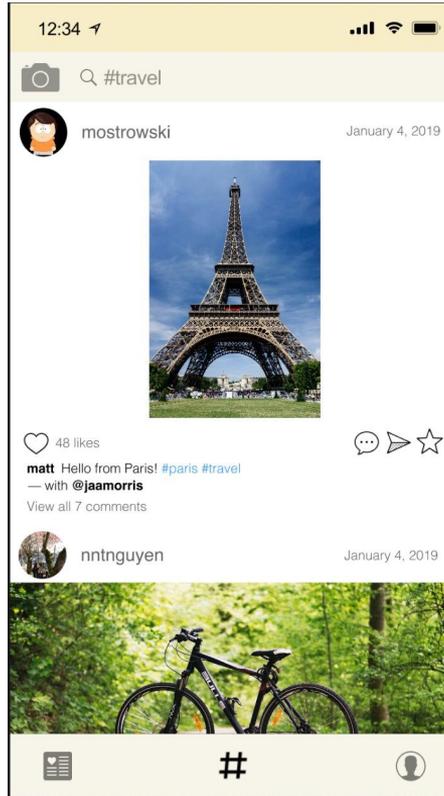


Sign Up (Current)

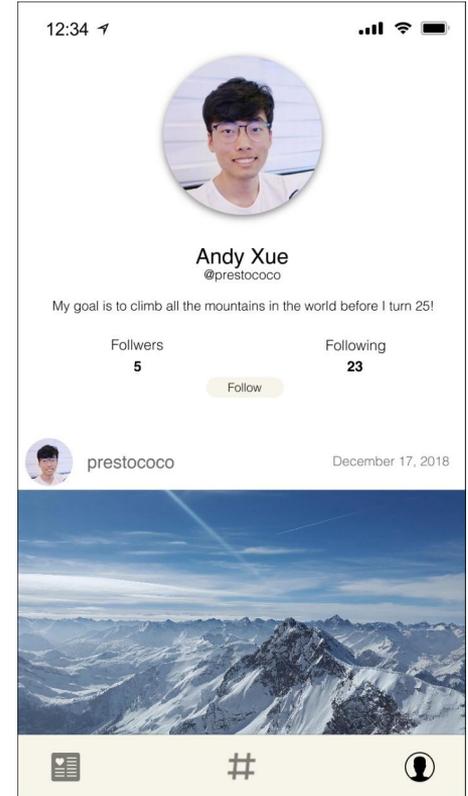
Wireframes - High fidelity



Newsfeed

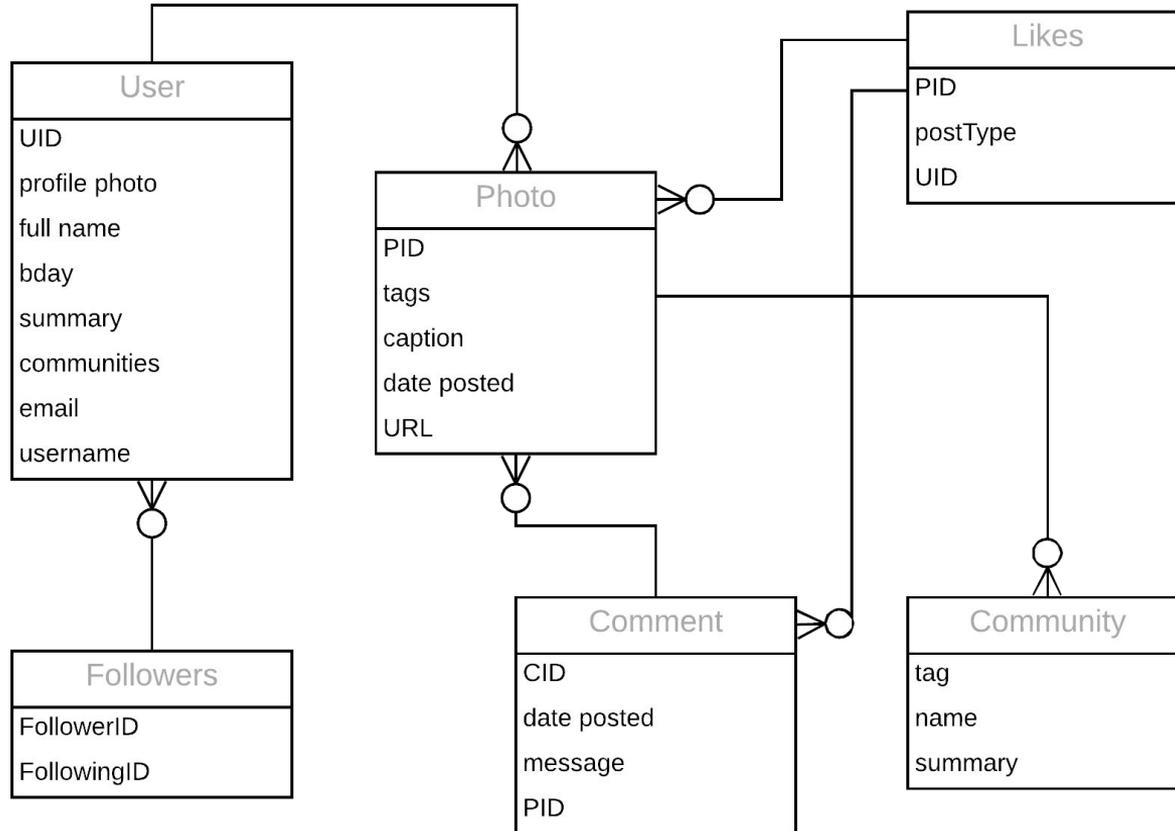


Community



Profile

Designing Backend



Firestore structure

The screenshot displays the Firebase console interface for a Firestore database. The breadcrumb navigation at the top shows the path: Home > users > L4sY2HJvt0mX... (with an edit icon). The interface is divided into three main vertical sections:

- Left Panel (Database Structure):** Shows a tree view under the database name 'gram165'. Collections listed include 'comments', 'communities', 'followers', 'likes', 'photos', and 'users'. The 'users' collection is selected and highlighted with a right-pointing chevron.
- Middle Panel (Collection View):** Shows the 'users' collection with an 'Add document' button. Below it, four document IDs are listed: 'HpX62EjpcqeP6fM9cLvG', 'L4sY2HJvt0mX9sXWcwuy' (which is highlighted and has a right-pointing chevron), 'Rr3TLRPiQEnwbmE1TRH1', and 'qzDtSmYytNMYFSXJCZJY'.
- Right Panel (Document Details):** Shows the details for the selected document 'L4sY2HJvt0mX9sXWcwuy'. It includes an 'Add collection' button, an 'Add field' button, and a list of fields: 'bday' (value: 'June 5, 1997 at 12:00:00 AM UTC-7'), 'communities' (expanded to show an array with one element: 'beach'), 'email' (value: '"jaamorris@ucdavis.edu"'), 'firstName' (value: '"Jacob"'), 'lastName' (value: '"Morris"'), 'profilePhoto' (value: '"https://firebasestorage.googleapis.com/v0/b/gram165.a... alt=media&token=e8989baf-5b3f-4ee6-a18d-994b73d096t..."), 'summary' (value: '"hello"'), and 'username' (value: '"jaamorris"').

Sample queries

- Find a user entry by email

```
let db = Firestore.firestore()  
db.collection("users").whereField("email", isEqualTo: userEmail)
```

- Search users by username

```
let docRef = db.collection("users")  
//query where name starts with the input info  
let query = docRef.whereField("username", isGreaterThan:  
    name).whereField("username", isLessThan: name +  
    "z").order(by: "username", descending: true)
```

Sample queries

- Return the info related to a user with username

```
let docRef = db.collection("users")  
let query = docRef.whereField("username", isEqualTo: user.username)
```

- Find userIDs followed by provided user

```
let docRef = db.collection("followers")  
let query = docRef.whereField("followerID", isEqualTo: userID)
```

Other Queries Needed

- Posting pictures
- Populating user feed from followers
- Posting and getting comments on a photo
- Posting and getting likes on a photo
- Generating communities
- Update profile info

Live Demo

Three basic functionalities: log in/sign up + search + follow/unfollow