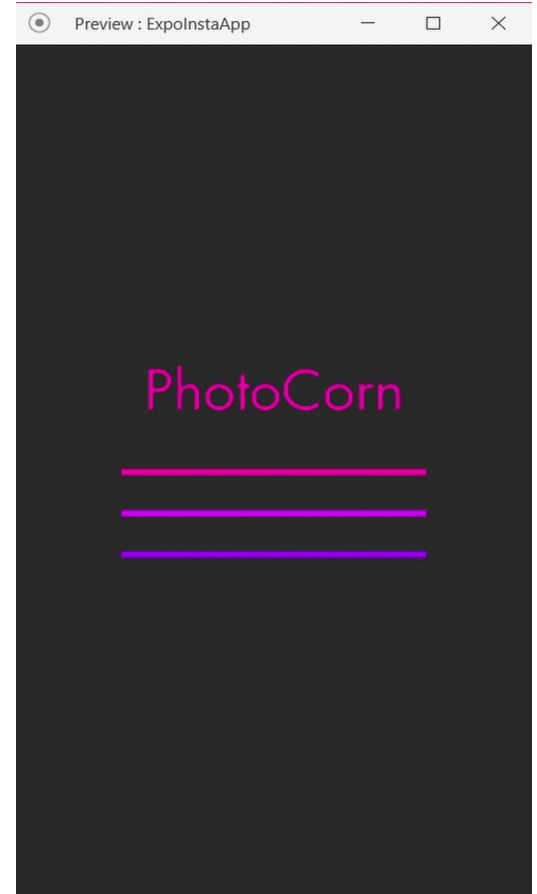# Milestone 2 Presentation

Harry Levinson, Emma Kristovich,
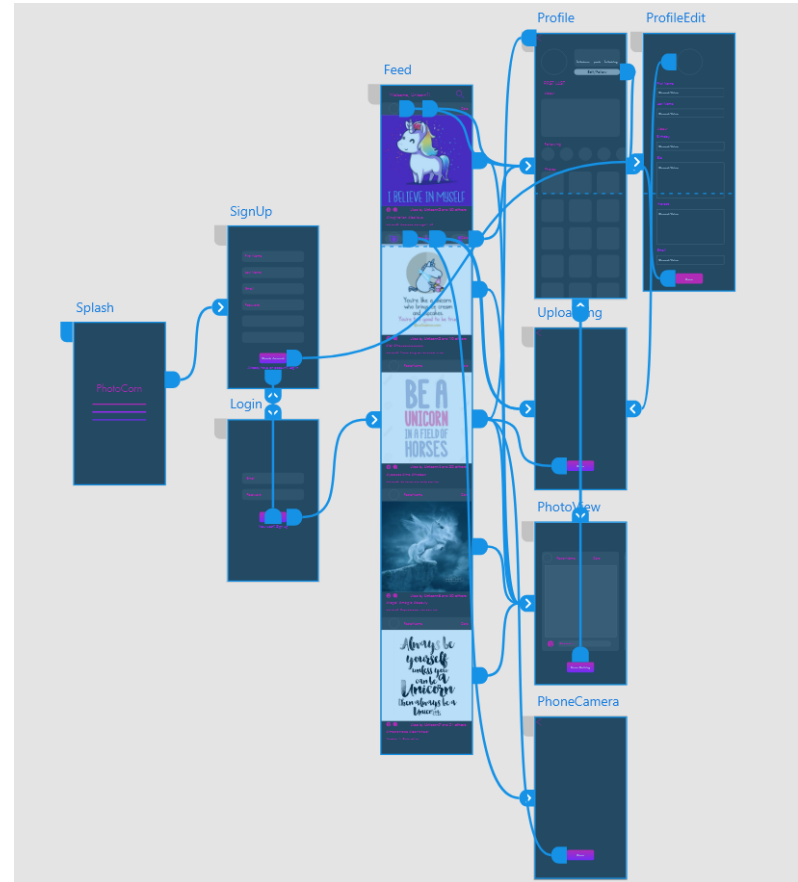Scott Madera, Chandni Nagda

App Personality and User Interface

- Fun
  - Bright color accents (pink, purple)
- Friendly
  - Easy to use
- Modern
  - Full screen images
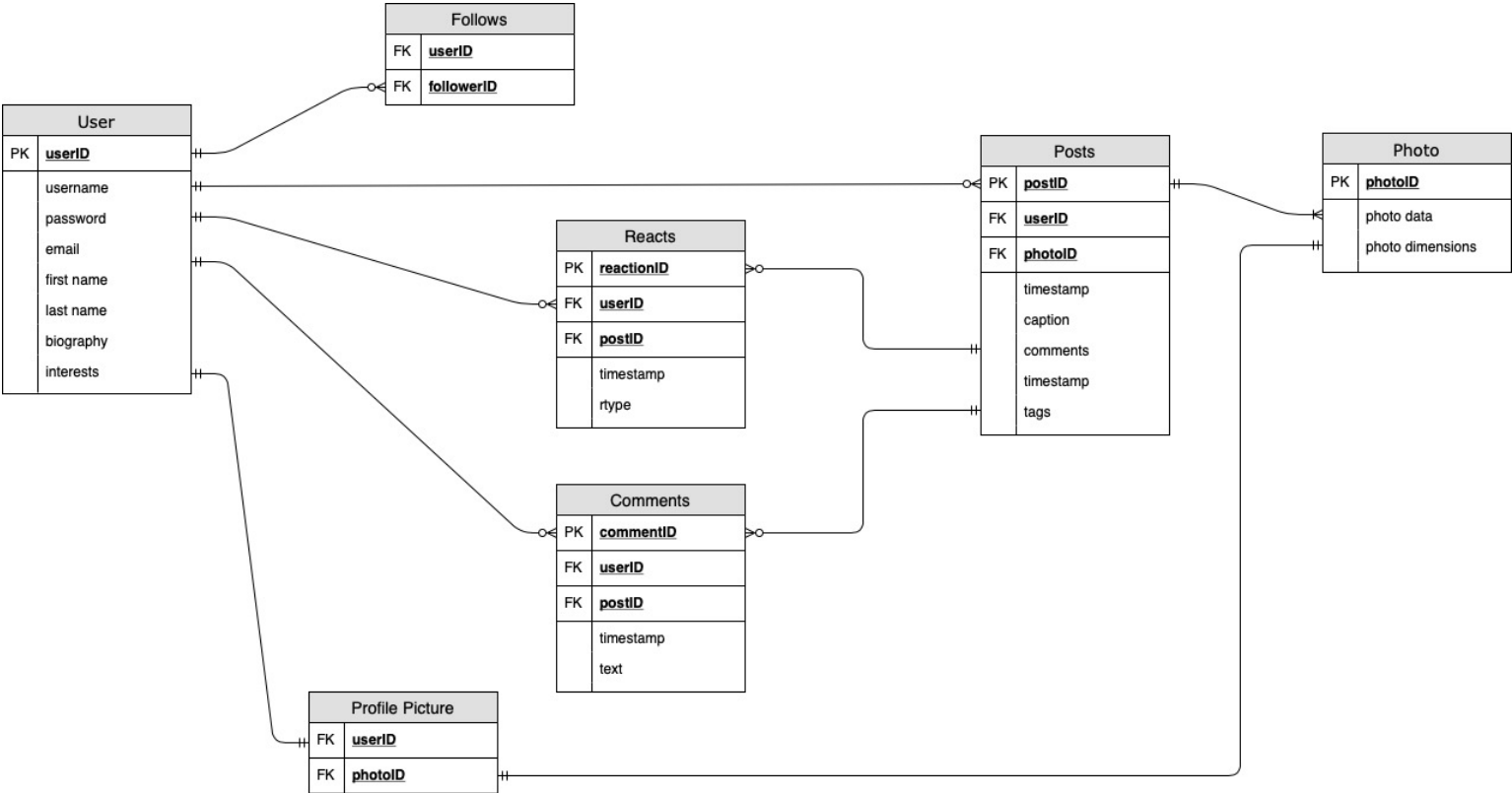 - Slick dark theme color scheme
- Accessible to all

User Experience

- Sign Up Page
- Edit Profile
- View Profile
- Activity Feed
- New Post

Database Schema

Sample Queries

Integrity Constraints

- Domain Constraints
    - Most values are type string
    - Some shouldn't be: dates, image
- Entity Integrity Constraints
    - Primary keys can't be null
    - Example: userID for users table
- Referential Integrity Constraints
    - Some tables can only have entries that are the key of other tables (foreign keys)
    - Example: Followers/following cannot have uid's that are not in the user table
- Key Constraints
    - All primary keys must not have multiple entries
    - Example: No two userIDs in the users table can be the same

Creating a New User

```
handleSignUp = () => {
    const { email, password, firstname, lastname, dob } = this.state
    firebase
    .auth()
    .createUserWithEmailAndPassword(email, password)
    .then(function(user) {
                var user = firebase.auth().currentUser;
                firebase.firestore().collection("users").doc(user.uid).set({
                        first: firstname,
                        last: lastname,
                        email: email,
                        dob: dob,
                        uid: user.uid,
    }).then(function() {
        this.setState({isSignedUp: true});
    }.bind(this))
        .catch ((error) => {console.error(error);});
    }.bind(this))
        .catch(error => {console.log(error.message)})
}
```

Getting a User's Name

```
users_ref = firebase.firestore().collection("users");
users_ref.doc(firebase.auth().currentUser.uid).get().then(function(doc) {
this.setState(
        {
            currentUser: firebase.auth().currentUser,
            name: doc.data().first,
            isLoading: false
        }
    );
}.bind(this)).catch ((error) => {console.error(error);});
```

Set User's Profile Information

```
var user = firebase.auth().currentUser;
user.updateEmail(email).then(
    firebase.firestore().collection("users").doc(user.uid).set({
        first: firstname,
        last: lastname,
        email: email,
        dob: dob,
        uid: user.uid,
        interests: interests,
        bio: bio,
    }).then(function() {
        this.setState({finishedEdit: true});
        console.log("inside set " + user.uid)
    }.bind(this))
)
```

Get all comments for a post

```
var pid = "lgjbk7QU785VY87baHOY"
commentsRef = firebase.firestore().collection("Comment")     commentsRef.where("postID", "==",
pid).get().then(function(querySnapshot) {
    querySnapshot.forEach(function(doc){
     console.log(doc.data().text);
      });
  });
```

Get all users the current user is following

```
follows_ref = firebase.firestore().collection("Follows");
follows_ref
.where("userID", "==", firebase.auth().currentUser.uid)
.get()
.then(function(querySnapshot) {
    querySnapshot.forEach(function(doc) {
        console.log(doc.data().followedID);
    });
})
```

Get Number of Reactions to a Post

```
postID = "lgjbk7QU785VY87baHOY"
numReactions = 0
reaction_ref = firebase.firestore().collection("Reaction")
reaction_ref.where("postID", "==", postID).get()
.then(function(querySnapshot) {
    querySnapshot.forEach(function(doc) {
        numReactions += 1
    });
        console.log(numReactions)
})
```

Get up to 10 most recent posts from users that this user follows

```javascript
//Get up to 10 most recent posts from users that this user follows
follows_ref = firebase.firestore().collection("Follows");          //get the Follows collection
var followed = [];                                                  //this will contain the users that this user follows
follows_ref
.where("userID", "==", firebase.auth().currentUser.uid)            //look in follows table for this user
.get()
.then(function(querySnapshot) {
    querySnapshot.forEach(function(doc) {                          //for each match
        followed.push(doc.data().followedID);                      //add to followed array
    });

    var post_captions = [];                                        //will contain the captions for 10 most recent posts
    var post_timestamps = [];                                      //will contain the timestamps for 10 most recent posts

    posts_ref = firebase.firestore().collection("Posts")           //get the Posts collection

    posts_ref
    .orderBy("timestamp")                                          //order by time
    .limit(10)                                                     //get up to 10
    .get()
    .then(function(querySnapshot) {
        querySnapshot.forEach(function(doc) {                      //for each match
            if (followed.includes(doc.data().userID)) {            //if this post's poster is followed by this user
                post_captions.push(doc.data().caption);
                post_timestamps.push(doc.data().timestamp);
            }

        });
        console.log(post_captions);                                //print captions array
        console.log(post_timestamps);                              //print timestamp array
    })
})
```

New Features

- Signup field validation
  - Unique user
  - Unique email
  - Password length > 6
- Profile edit
  - Edit user data (bio, interests)
  - Upload a profile picture (stores in database)
  - Auto-reload profile picture from database when changed
- Profile view
  - View your own profile
  - View profile picture (downloads picture from database)

Live Demonstration