ECS 165A Milestone 1

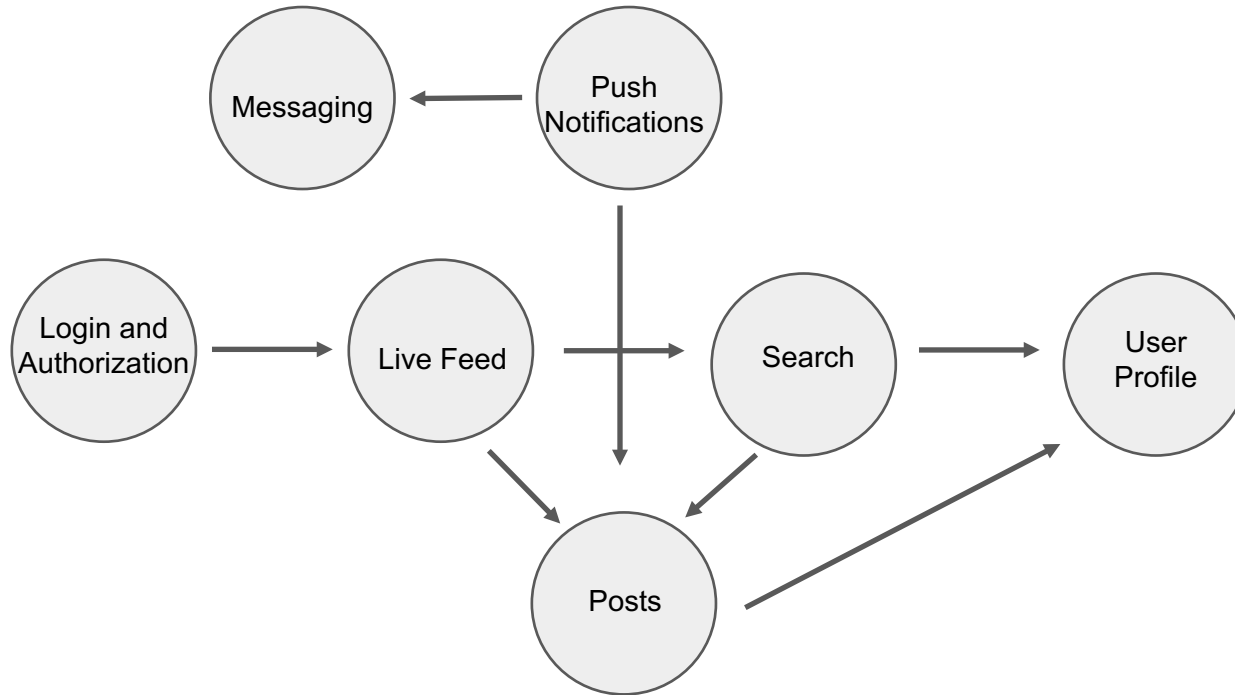Louie Chen, Noshin Kamal, Iyesha Puri, Tony Woo

Functionalities and Features

- User Authorization via email or social media
- User Profile Management
- Post Creation
- Activity Feed Maintenance
- Search Feature
- Push Notifications
- Editing/Deleting Posts
- Messaging

System Design

- User Authorization: FirebaseUI
  - Allows sign-in flows for email, phone authentication, Google Sign-In, Facebook Login, and Twitter Login
  - Flows for account creation and password resets
- Post Creation/ Editing/ Deleting
  - Load images from Firebase real time database and create collection of images
  - AVFoundation Capture subsystem from AVFoundation framework to capture photos and build custom camera UI
- Push Notifications
  - Use UserNotifications framework to allow push notifications and communicate important information to app users
- Messaging
  - Firebase Cloud Messaging library
- Search Feature
  - Firebase is indexed by the username

Program Flow

- Messaging, push notifications, and posts are user actions that can be triggered at any time

Tech Stack

- Platform: iOS
- Language: Swift
- Database: Firebase Realtime Database
- Framework: Cocoa Touch

- User Authorization: FirebaseUI
- Messaging: Firebase Cloud Messaging
- Post Creation: AVFoundation framework
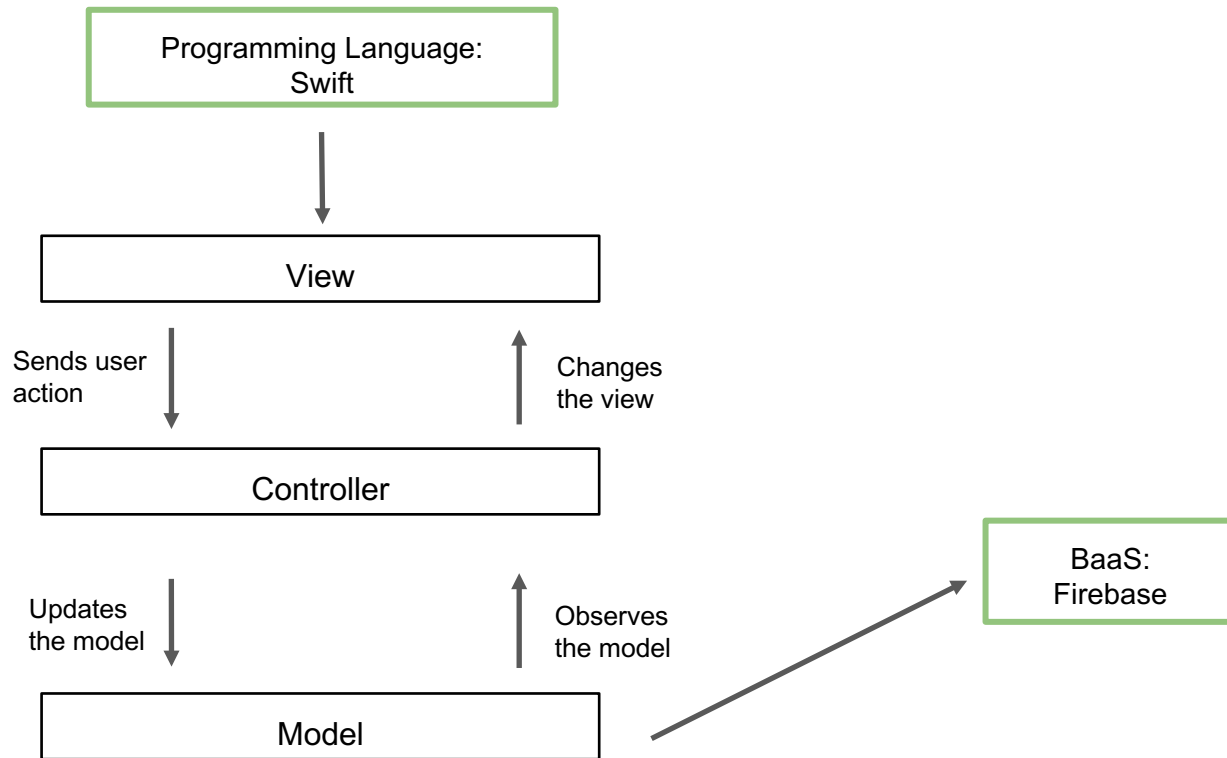- Push Notifications: UserNotification framework

Why Firebase?

-   Real time database, clients can receive updated data almost instantly

-   BaaS; provides server side functionality so that we don't have to worry about infrastructure

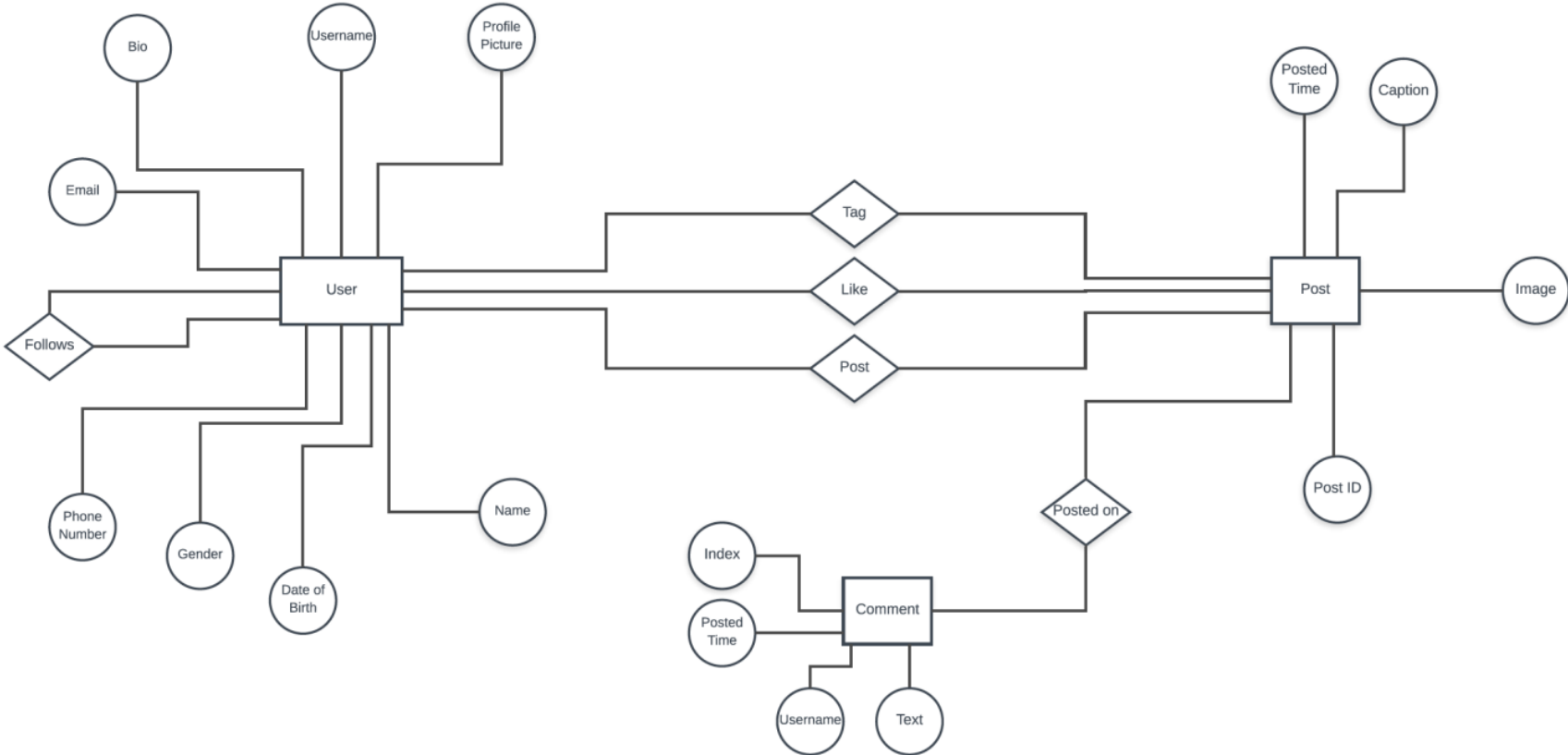-   Firebase acts as a server, API, and data store

Why Swift?

-   No front-end technology required

-   Group mostly knows iOS development and have Apple devices

System Design

ER Model

Live Demo