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

**Programming Language:** Swift

View
- Sends user action
- Changes the view

Controller
- Updates the model
- Observes the model

Model

BaaS: Firebase

- Firebase
ER Model
Live Demo