Final Report

**Application Overview**

My application is intended provide movie lovers a platform to communicate. And also provide up-to-date information for users.

## **Detail Introduction**

## **Model**

There are three main models in my application – User, Post and Movie

**User**: Each user has to log in to use the app, and each user have their own profile including username, user\_id, photoUrl (User can upload an image when sign up on the app)

**Post**: User can upload their comment and thoughts on certain movie. Each time uploading the post, a time stamp and id will be created automatically by Firebase. and author is the current logged in user.

**Movie**: The source fetch from API instantly. But I am not using all of its json attribute. Only save the necessary part which is more straight forward for a user. The main attribute include movie\_title, release\_date, poster\_path url, overview of the movie and vote average and total voted count from famous Website like IMDb.

Rated Movie and Saved Movie are derived from Movie based on User action, Rated Movie is the movie that rated by a certain user. Saved Movie is for user to save in their wishing to watch later list.

**Controller**

I have dived my Function into four different groups:

1. **User Controller Group**: Including the basic authentication function like signup and login, which is mainly realized by Firebase Auth. Uploading user profile such as username and profile photo when signup is separated stored in Firebase database and storage. User Homepage can show the photo of user, check the saved and rated movies based on user previous action, start new posts and log out.

SignUp – User has to sign up to use the app and the sign up and

Login – User Log in

Main view – the start page of the app. will automatically jump to function page if user has logged in

Userhome – the home page of user

1. **Movie Category**: There are three main categories for user to check:

Top Rate – provided by API which is the list of movies that get most high marks during all the time

Now Online – the movie is currently showing in the local theater

Coming soon – the movie which is just release or planned to be online due to the date.

1. **Search Movie**: User can search the movie by key word and check the detail of the movie. When first jump to this page. A list of most popular will be present on the table. When type into search bar, Fetch the data online and listing into the table dynamically.
2. **Posts Controller**:

Upload posts – User upload their comment and express thoughts

Display posts – All posts from different users will be presenting in the community section.

## **Views**

The entire app is embedded in a tab bar controller so that user can jump to different section easily.

Use both of tableView and CollectionView to display movie poster and use collection view as a segment controller for more than two categories.

## **Design Technical**

1. **Cocoapod**: easily install, update and delete other APIs by just specify the dependencies for your project in a simple text file: your Podfile

### Firebase: I use three main function provided by Firebase: Auth for user signup and login using email and password, Real-time database to store basic type data and Storage to store image objects.

### Alamofire: Alamofire provides chainable request/response methods, JSON parameter and response serialization, authentication, and many other features.

### SwiftyJSON: Since the data type is very strict in Swift. It is easy to make mistake when parse json object into self-defined object. SwifyJSON combine with Alamofire provide a much easier way to deal with the whole process by convert the json into dictionary so that can use chain to find the value.

### TheMovieDB(TMDb): The data source of my application. It provided not only movie resource but also information such as TV series showing time. I only use the search and other list of movie but is good enough for my app.

**Further Development**

Due to time and limitation of the resources. I only made a very simple layout of my application. For further, I would like to use the open source layout provider such as animation and other technical skills for visual effect. Secondly, I would develop a recommendation system based on the user behavior including posts, rated movie and saved move. Lastly, I would like to add a function to search for cinema theater nearby and booking a ticket on the app.

screen shots















