

Design document for UrbanFlix

Authors: Emmanuel Gallegos, Zachary Medeiros, Jamie Nguyen, Dhruvinkumar Patel

Date: 2.16.20

Status: Work in Progress (Design phase)

1) Concept Summary

The purpose behind UrbanFlix is to provide the film viewing community with the means of quickly and simply sharing their opinions openly on the internet. Quick and simple are two attributes driving the methodology behind our concept. Once the application has been downloaded to the device, the user can immediately begin participating within the application's user base.

At this point, the user can search a film title and either thumbs up/down the film and/or write a review, including the ability to create a new entry if the desired film was not found after a search. In order to optimize the user's experience, streamlining the simplicity of functionality is an overarching goal in the software's implementation. By making user accounts optional, the user faces one less barrier between them and their participation within the community at large.

2) Audience/Customer

UrbanFlix is targeted towards movie buffs and general film fans. We expect users to be comfortable downloading and deploying Android applications, and comfortable with the process of creating accounts manually or via linking to external account services such as Google, Facebook, etc. However, as accounts are not necessary, the app should function fine even if the user does not have the capability to make an account.

3) Background

To understand the project, one should be familiar with the basic concepts of applications and the purpose of databases, as well as the idea of user accounts. The prerequisites for understanding the app are low; although understanding the business models and interfaces of the following services will help explain our goals with regards to emulating parts of their designs within our app:

- Urban Dictionary - helpful for understanding the core concept of a user driven database
- IMDB - helpful for understanding what our app would like to offer; we want to provide an alternative to traditional movie database apps/sites such as IMDB that is purely user driven
- Reddit - helpful for understanding how our algorithms will work with regards to upvoting, downvoting, and list priority

4) Application Cost and Projected Success

- App cost: \$0
- Monetization possibilities

- Advertisement page on startup, close it to make it stop appearing until next reopen
 - Ad banners between reviews within each movie
 - Account Creation (\$0.99):
 - Ad Removal
 - View history of previously created reviews
- Projected Success
 - A robust repository of user created film reviews
 - A large amount of active users and frequent participants

5) Interface Mockups

Home Page



Search (Movie or Hashtag)



Search (Nothing Found)



Reviews



Make Review

9:47

← Titanic →

Review Title

(30 character limit)

Review

(200 character limit)

Hashtags (Up to 5)

+

Author

Anonymous

+

Account Creation



The image shows a mobile application interface for account creation. At the top, there is a status bar with a Wi-Fi icon, signal strength bars, a battery icon, and the time 11:20. Below the status bar is a navigation bar with a back arrow, the text "UrbanFlix", and a home icon. The main content area contains three input fields labeled "Email Address", "Username", and "Password". To the right of the "Password" field is a plus sign icon. Below these fields is the text "OR". Underneath "OR" is the text "Connect With" followed by four social media icons: Facebook, Twitter, Instagram, and Google+. At the bottom of the screen is a copyright notice: "© 2020 UrbanFlix".

← UrbanFlix 🏠

Email Address





Username

Password

+

OR

Connect With

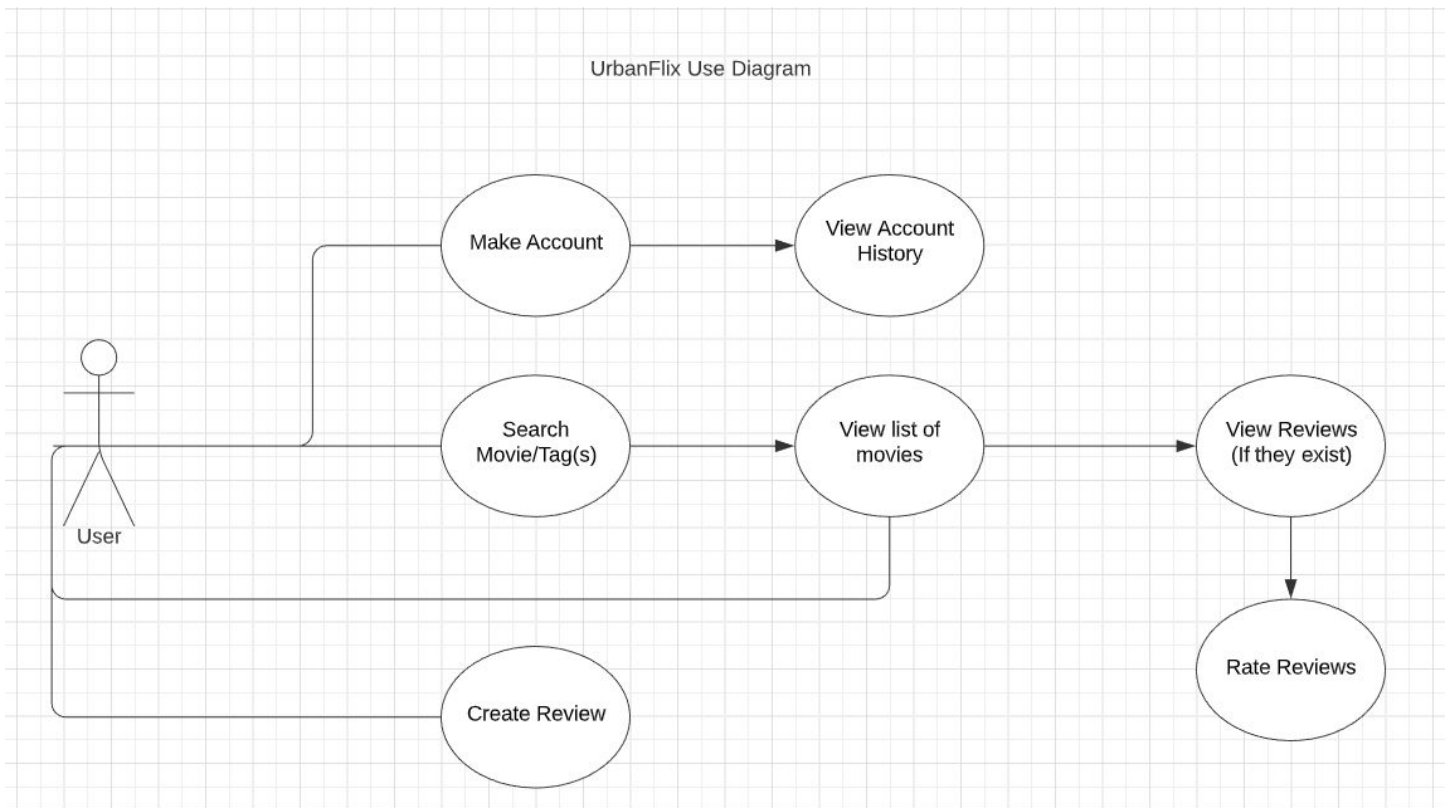
   

© 2020 UrbanFlix

Account Summary (Paid Feature)



6) Use Case Diagram

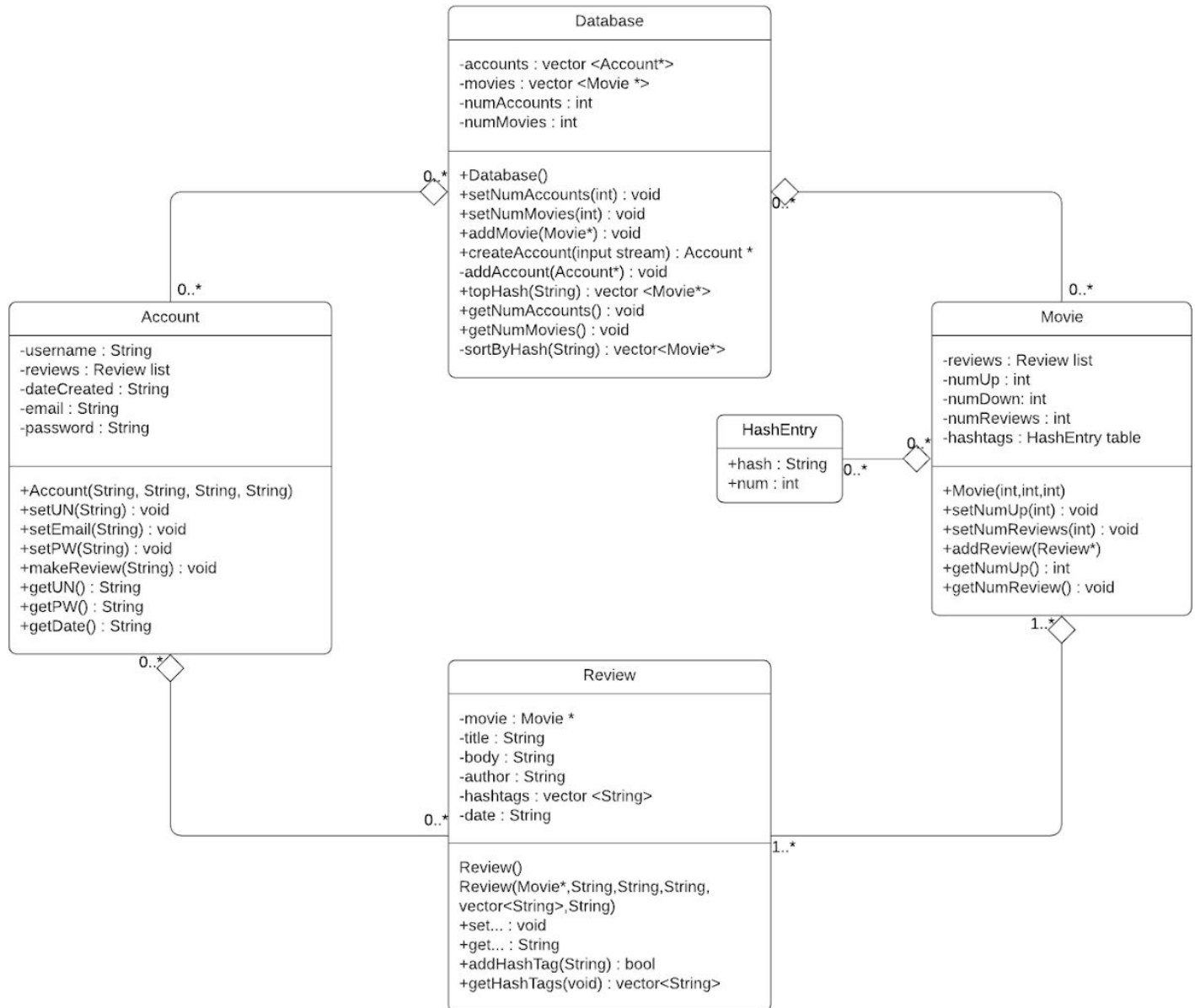


7) Detailed Design

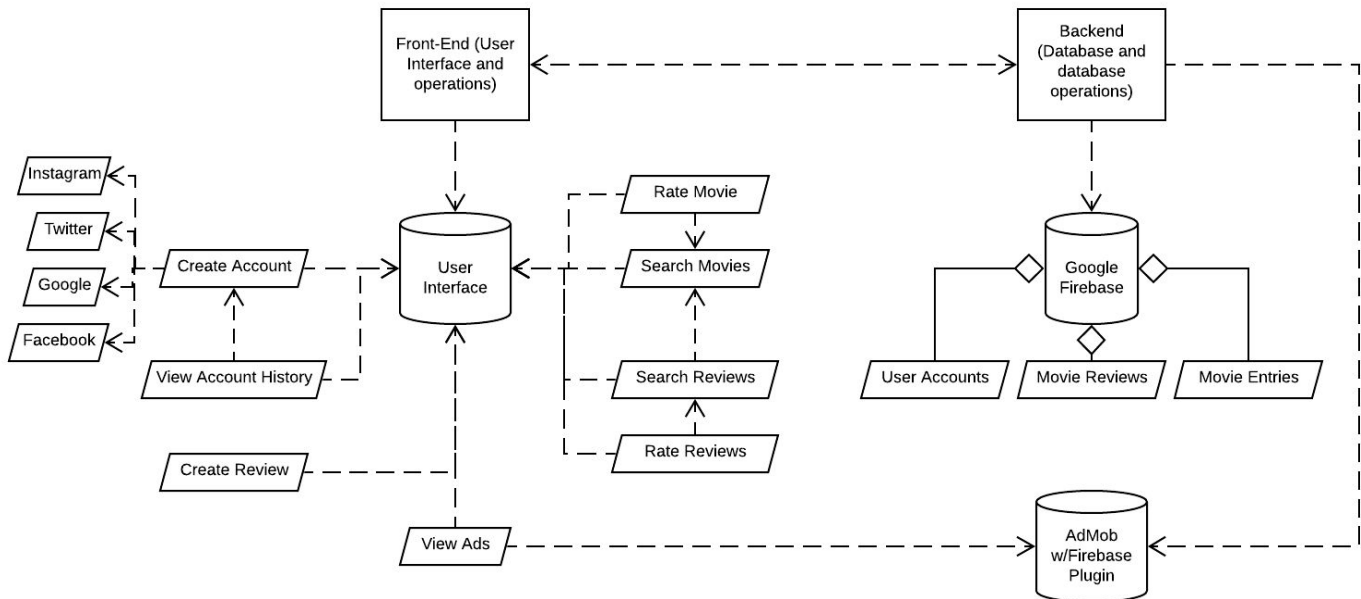
Class Diagram

UrbanFlix Class UML Diagram

Emmanuel Gallegos | February 17, 2020



Systems Diagram



8) Related Work

We drew inspiration for UrbanFlix largely from a similar site/app known as the UrbanDictionary. The idea of UrbanDictionary is unique in that it allows the masses to decide on alternative definitions to words, often slang terms, and possibly creating new slang words entirely. Rather than drawing any definitions from a pre existing database, entries are entirely user generated and their list priorities are determined by user votes. The service UrbanFlix offers is similar to other film and television databases such as IMDB, Reelgood, JustWatch. However, while these sites are curated and draw data from external sources such as Netflix, Hulu, or Disney+, our database is entirely user driven.

When designing our app, we wanted to distinguish our database from other services which have strong influence from special interests (eg film critics, or the film industry). The reviews provided on UrbanFlix will be unadulterated and the most relevant reviews will be determined via popular vote in conjunction with novelty, similar to the way Reddit's sorting algorithms work for subreddits and comments. Reviews that are both new AND popular will float to the top, while old reviews will eventually sink to the bottom, even if they were popular when they were written.

9) Framework/Services/Cloud/Backends

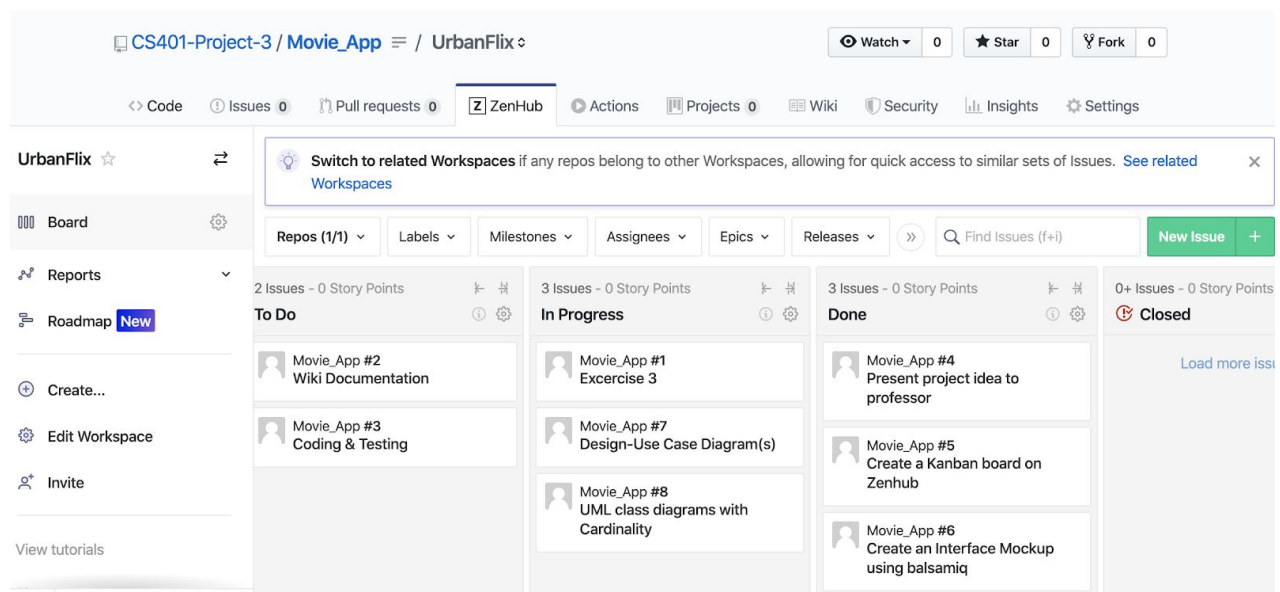
The App will be created using Android Studio using Google Firebase for storing our database of accounts, movies, and reviews. The app will also be linked through platforms such as Facebook, Gmail, Twitter, and Instagram. It will also include AdMob w/Firebase plugin for non-paid-account members as a source of potential revenue.

10) Testing

JUnit test classes will be created for each module and deployed after each function is developed within any module. By continuously designing and updating test classes for our modules, we hope to cut down on potential bugs slipping through the cracks where they may be extremely difficult to track down in the future.

We will also employ continuous cycles of user feedback and adaptation. We have friends and family who are interested in the product that will download and try the app through our various stages of completion.

11) Schedule



12) Dependencies

- Android Studio API Library
- A dedicated user base (initially the developers and friends/family of the developers) to help populate the initial database
- Links to Facebook, Google, Instagram, Twitter may require SDK's or API's
- AdMob w/Firebase for advertisement services
- Google Firebase server for database to reside on