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# Ratio

## Description

If you want to reach for the best-loved tools the only address you need is Ratio. In our application you are the determining role. Due to you and all Ratio lovers we can analyze and share with people the most fascinating, popular, top rated and most loved movies, tv series or books.

You can:

- \* See the newest or the most loved and popular movies, tv series or books.
- \* Create and follow your Ratio collection by rating to your favourite or disliked movies, tv series or books.
- \* Get the fundamental informations about them.
- \* Search and see the popularity of the tools you seek for.

## Intended User

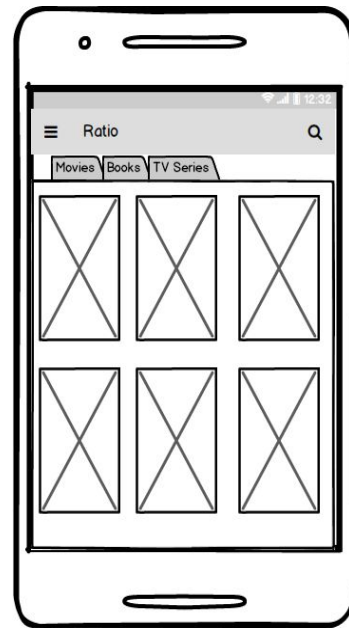
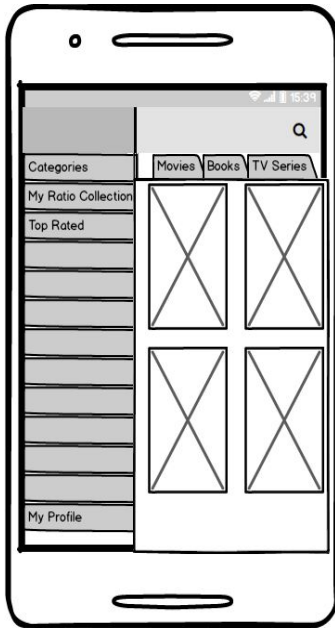
This application belongs to all users which want to watch the most favourite movies or tv series and to read the most demanding books so far.

## Features

- Browse newest movies, tv series and books.
- Browse the level of appreciation of movies, tv series and books.
- Rate and see the movies, tv series and books rated by the user himself.
- Get the fundamental information of movies, tv series and books.

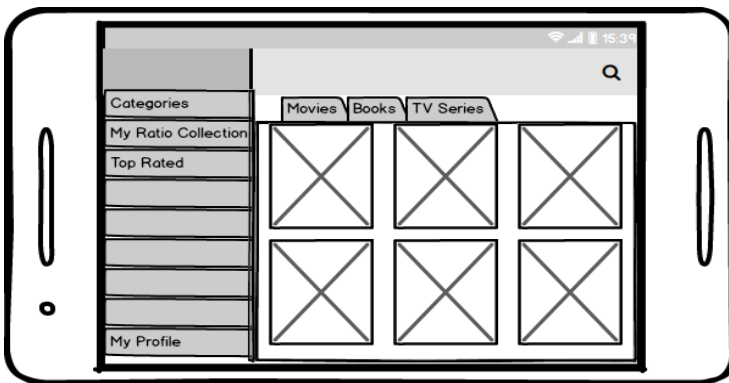
## User Interface Mocks

### Home Page(Categories Screen) with/without opened Navigation Drawer



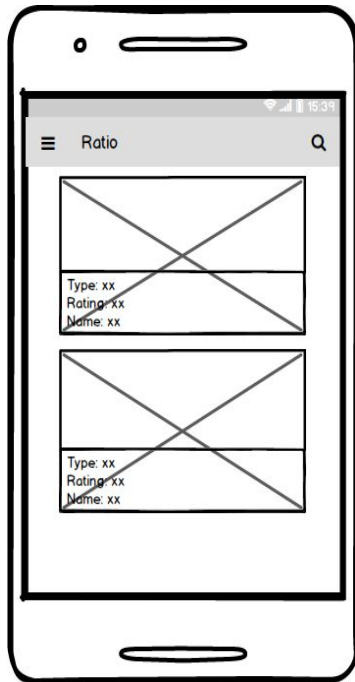
The Home Page which is named as Categories, displays all movies, books and tv series with a ViewPager. All other screens are seen and can be directed on Navigation Bar Drawer.

### Home Page(Categories Screen) with opened Navigation Drawer on landscape mode



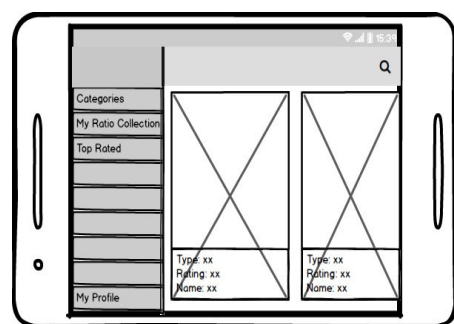
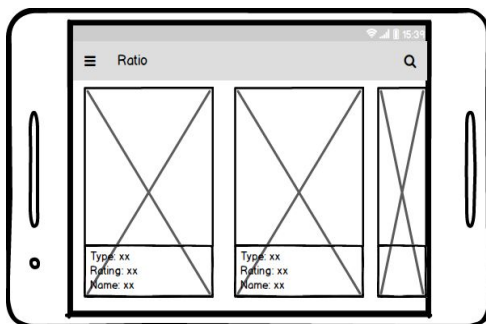
In landscape mode of Categories screen count of movies, books or tv series items are increased depending on the screen size.

## Top Rated or My Ratio Collection screen



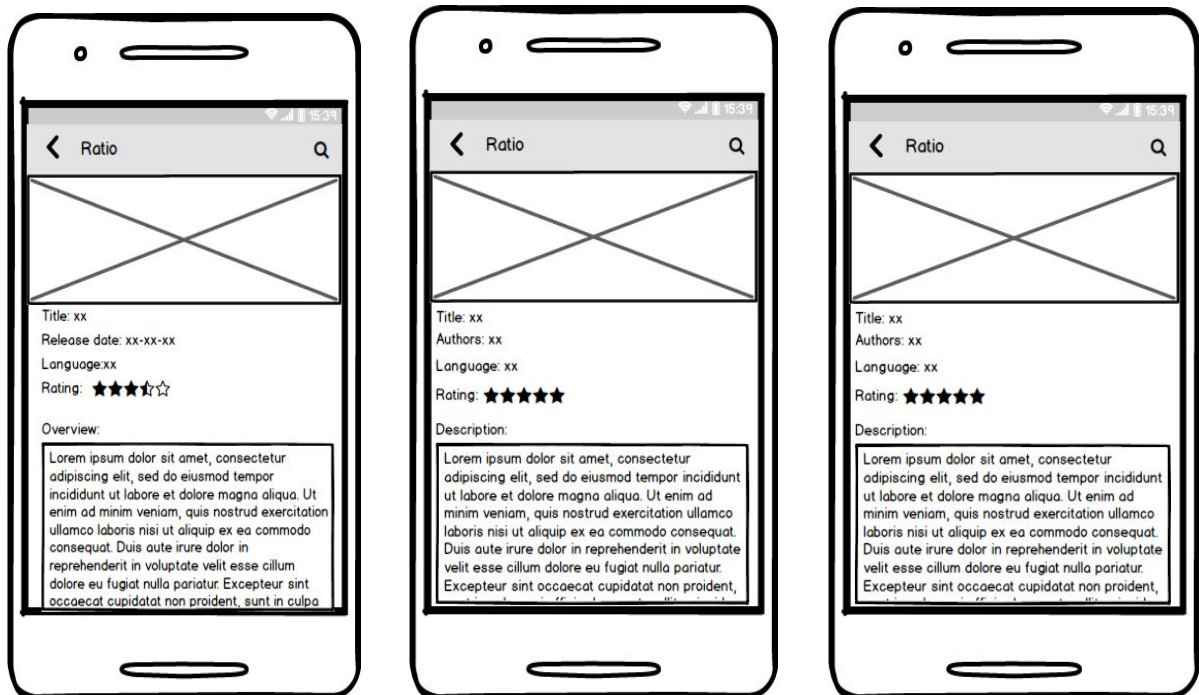
Top Rated screen displays the most voted collections when the My Ratio Collection displays the collections rated by the user himself. And the design of this screens are the same: Vertically listed items and placeholders where user can see the type, rate count and the name of each item.

## Top Rated or My Ratio Collection screen on landscape mode



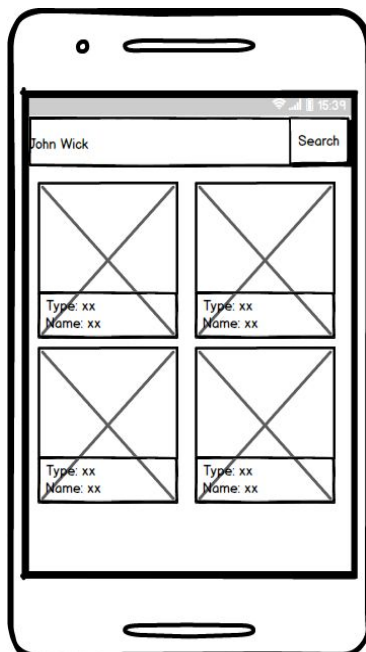
On the landscape mode of this screens all items listed horizontally.

## Detail screens of Movie, Book and Tv Series



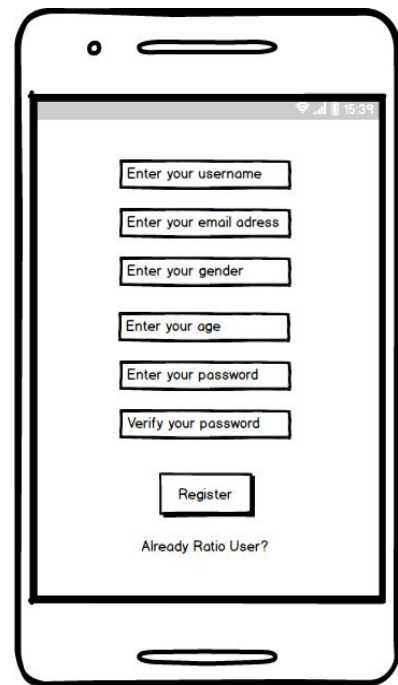
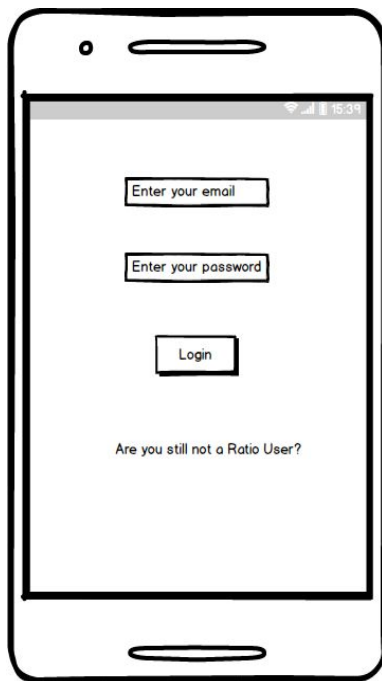
There are detail screens of each item of every collection. The voting process takes place here.

## Search Screen



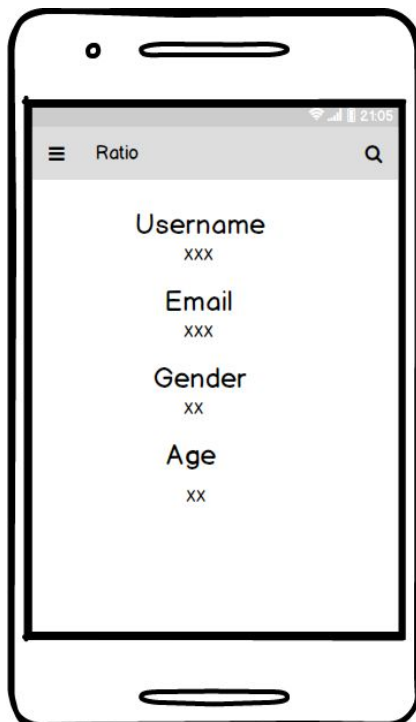
Users can search the item that they seek for by their title.

## Login/Register Screens



Users can be register to Ratio app by Register screen and save their sessions by Login screen.

## Profile Screen



Users can see their own informations on the Profile screen.

## Widget

Ratio

Item Name

Rate Number

Description

Go to Ratio

Widget will display fundamental informations about item of top rated collection.

## Key Considerations

How will your app handle data persistence?

App will use Content Provider & Firebase Database for preserving local data. Also the application will use Shared Preferences for maintaining widgets and Sync Adapter for updating data in its cache.

Describe any edge or corner cases in the UX.

- The application should be written exclusively in the Java Programming Language.
- The application should correctly preserve and restore user or app state on orientation change.
- The application should not close, freeze on any targeted device.
- The application uses stable release versions of all libraries, Gradle and Android Studio.

Describe any libraries you'll be using and share your reasoning for including them.

Item	Version
Android Studio	3.0
CompileSdk Version	26
MinSdk Version	21
Support AppCompat	26.1.0
Support Design	26.1.0
Firebase-Core	16.0.1
Firebase-Auth	16.0.1
Firebase Database	16.0.1
Google Analytics	3.17
Google AdMob	15.0.0
Picasso	2.71828
Butter Knife	8.8.1
Retrofit 2	2.4.0
OkHttp3	3.11.0
RxJava 2	2.1.16
Gson	2.8.5

Describe how you will implement Google Play Services or other external services.

The application will use Google Analytics and Google AdMob which are depending on Google Play Services.

# Required Tasks

## Task 1: Project Setup

Create android project:

- creating a new project in Android Studio
- configuring libraries by adding them to the app build.gradle file's dependencies

## Task 2: Implement UI for Each Activity and Fragment

Built UI for:

- Main Activity
  - Create ViewPager Adapter
  - Use Navigation Bar Drawer
- Categories Fragment
  - Create Book Fragment
  - Create Movie Fragment
  - Create Serial Fragment
- RatioCollection Fragment
- TopRated Fragment
- Profile Fragment
- Login Activity
- Register Activity
- Search Fragment

## Task 3: Create Models for JSON mapping & find their API adress

The Java classes which will be created:

- Movie
  - <https://www.themoviedb.org/>
- Book
  - <https://developers.google.com/books/>
- Serial
  - <https://www.tvmaze.com/>

## Task 4: API

Provide all API requests by using Retrofit 2 and mapping them by using Gson:

- Get all movies, books and tv series
- Get specific Movie, Book or Serial by their title



## **Task 5: Authentication**

Provide all users save their sessions by using Firebase Authentication service:

- Create a new user by email and password and also save them to Firebase Database with additional informations
- Login user by email and password

## **Task 6: Database**

For handling all local data the application will be used Firebase Database and Content Provider for storing. Database requests :

- Get Top Rated movies, books and tv series by using their rate number field
- Get Ratio collection of the user by user own id and id of each collection
- On the absenting of internet connection get top 10 newest movies, books and tv series from SQLite Db by using Content Provider and also use Loaders for updating displayed items after loading new data.

## **Task 7: Google Play Services**

Implement Google Analytics and Google Admob Services.

## **Task 8: Adding advertisement**

Adding advertisement to the application using Google Admob Service.

## **Task 9: Material and Adaptive Design**

Make layout designs of the application compatible also for tablets. And design screens according to material design principles.

## Task 10: **Make last arrangements**

- Provide a widget for top rated collection item.
- Move all strings into strings.xml.
- Enable RTL layout support.
- Provide support for accessibility.