USC Films Android App

An Android application to browse movies/TV Shows and look at the detailed information about them. Additionally, users can add their favorite movies/tv-shows to a watchlist for viewing later. These added items will be retained in the watchlist even after the user closes the app and opens it again. The user will also have an option to remove items from the watchlist.
The application will consist of 4 main screens:
- Home Screen - The user can toggle between viewing movies and TV shows on the home screen.
- Search Screen - Search for movies and TV shows.
- Watchlist Screen - Lists all movies and TV shows added to watchlist
- Details Screen - Shows more information about a selected movie or TV show.

(**Note**: This app has been designed and implemented in a Pixel 2XL emulator by using SDK API 30.)

External APIs

- TMDB API

Front-end Technologies

- Android Studio
- Volley HTTP requests
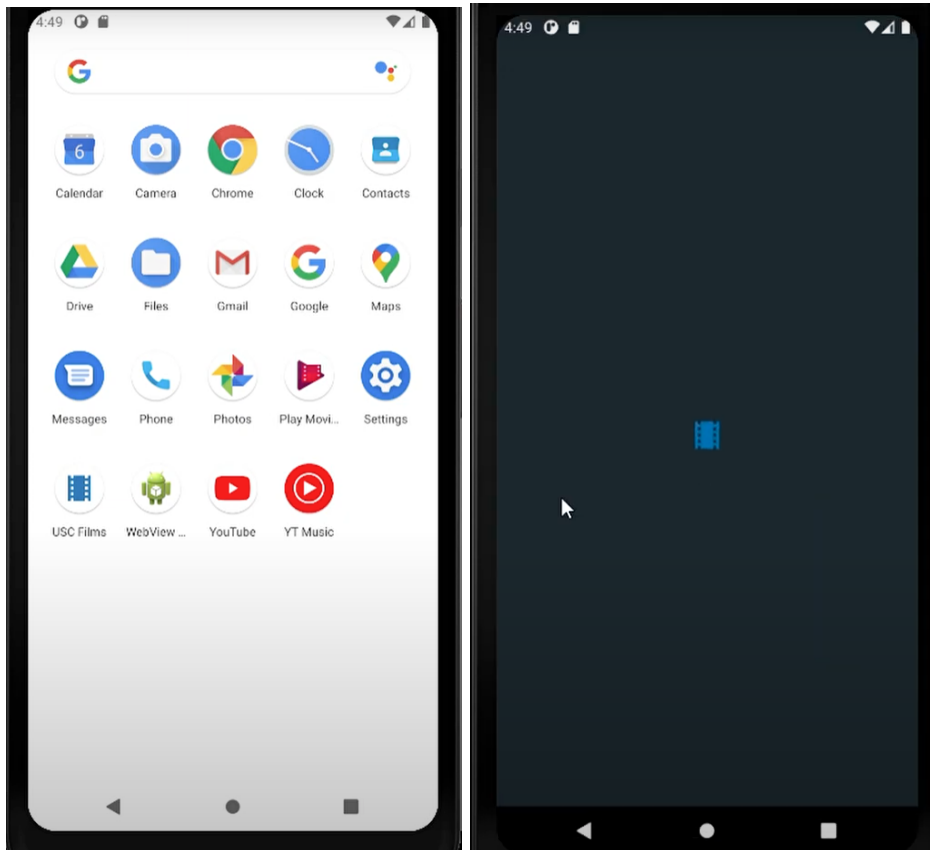- Picasso
- Glide
- YouTube Player

Back-end Technologies

- NodeJS/Express
    - Node.js: a JavaScript runtime built on Chrome's V8 JavaScript engine. Node.js uses an event driven, non-blocking I/O model that makes it lightweight and efficient. (reference: https://node.js.org/en/)
    - Express.js: standard server **framework** for Node.js. (reference: http://expressjs.com/)
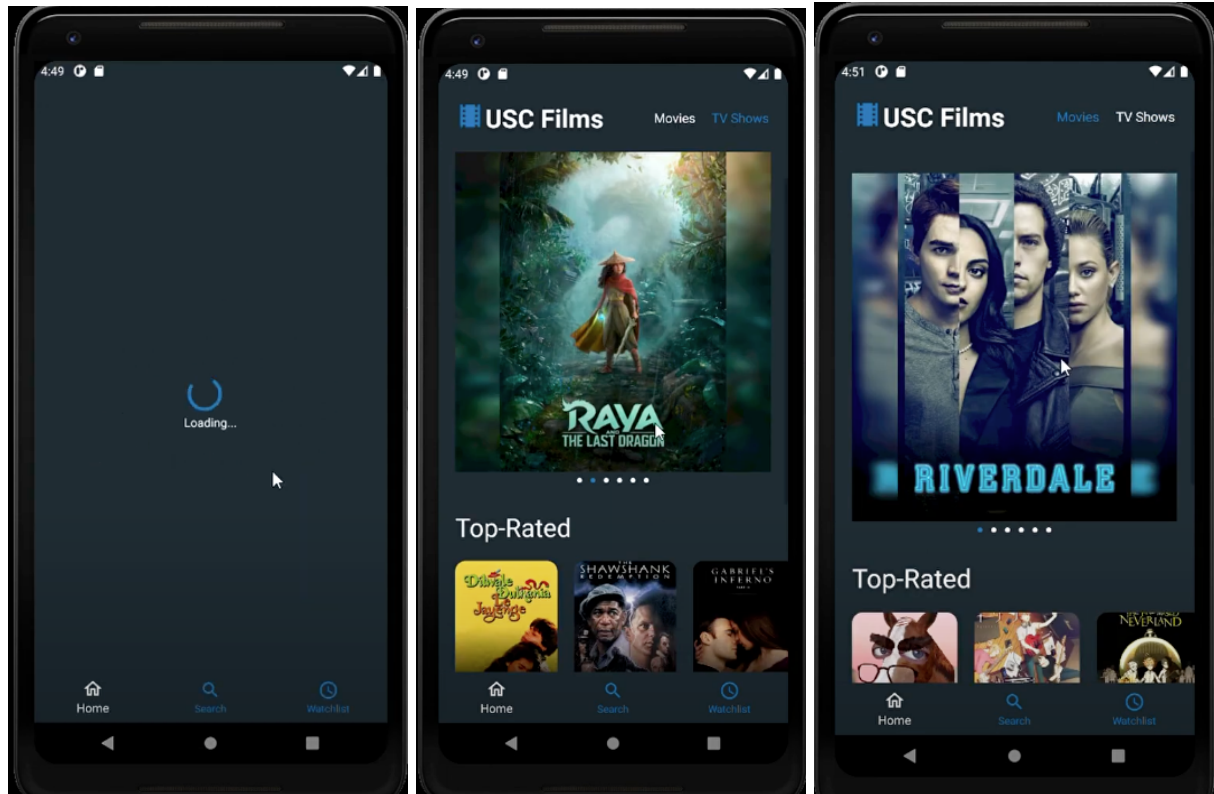
Cloud

- Azure

App Icon & Splash Screen

Home Page

When you open the app, there will be an initial spinner while the data is being fetched using Volley. After the main screen opens up, there will be a navigation bar at the bottom with three options to select from: Home, Search, and Watchlist (in this order). These three screens can be implemented using fragments.
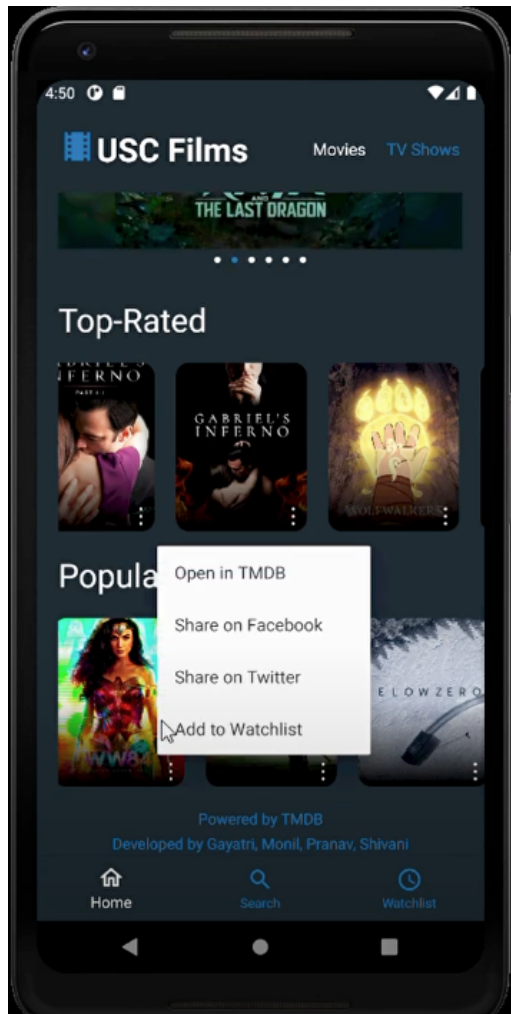
The home screen will have the name of the app - USC Films displayed at the top alongside the logo, with two tabs on the right-hand side - Movies and TV Shows. The selected tab will be highlighted in white. The home screen will initially be populated with the movies tab. The user will be able to toggle between the movies and tv show views for the home screen using these tabs.

The top of the screen is a slide show with a total of six images, for a duration of 600 ms each. These movies are also superimposed on a blurred out version of the same image.

There are two horizontal scroll views beneath the image slider - Top Rated and Popular. The horizontal scroll views which are implemented by RecycleView. Each RecycleView contains 10 poster images fetched from TMDB API.

Every card on the horizontal scroll view consists of the poster_path of the concerned movie/tv show, and a 'show menu' button at the bottom right corner. When the button is clicked, there will be a pop up menu. The image also has an image gradient as a part of this foreground, so that the menu button stands out.
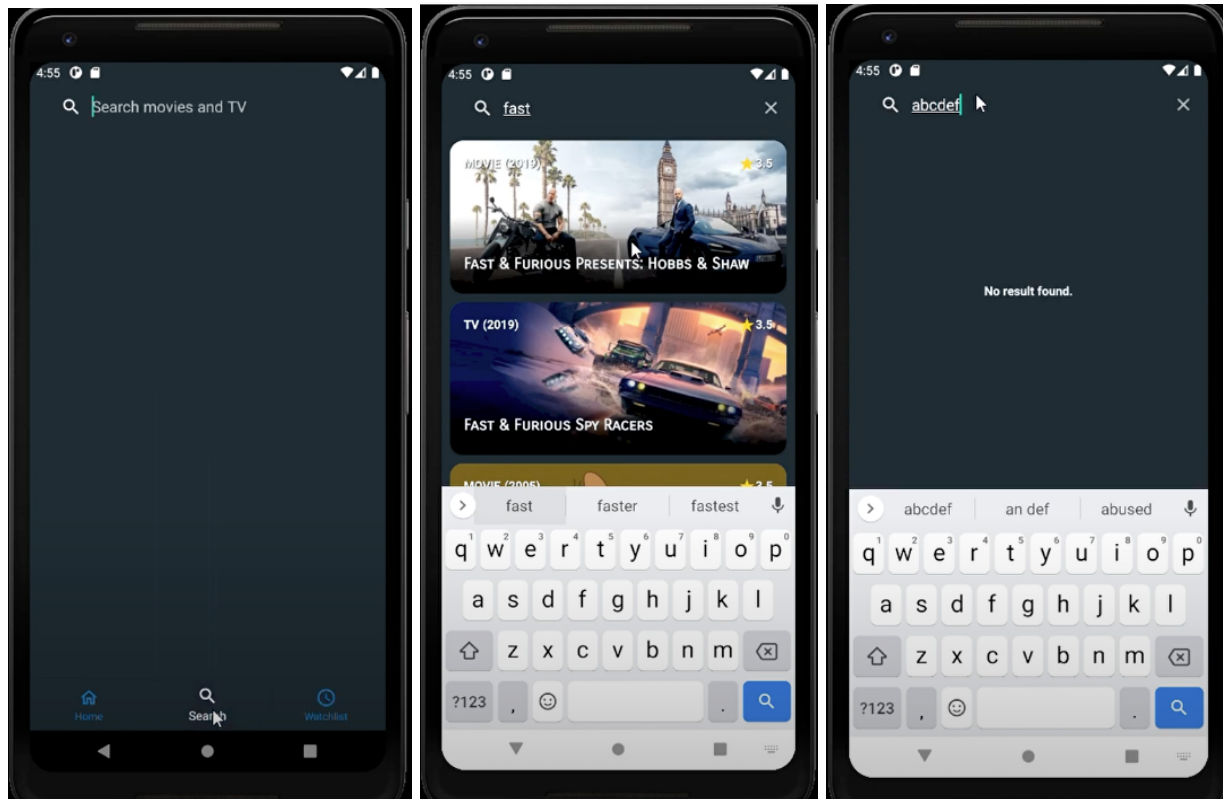
These four options will be:
1) Open in TMDB - This option will take the user to the official tmdb page of the movie/TV show.
2) Share on Facebook - This option will enable the user to share a link to the official tmdb page of the concerned movie/tv show to facebook, in a browser.
3) Share on Twitter - This option will enable the user to share a link to the official tmdb page of the movie/tv show to facebook, in a browser.
4) Add to Watchlist - This option will enable the user to add the movie/tv show to the watchlist section of the application for viewing it later.

Search Fragment

A search feature that will display search result cards of movies and TV shows when you type on the toolbar on top of the screen
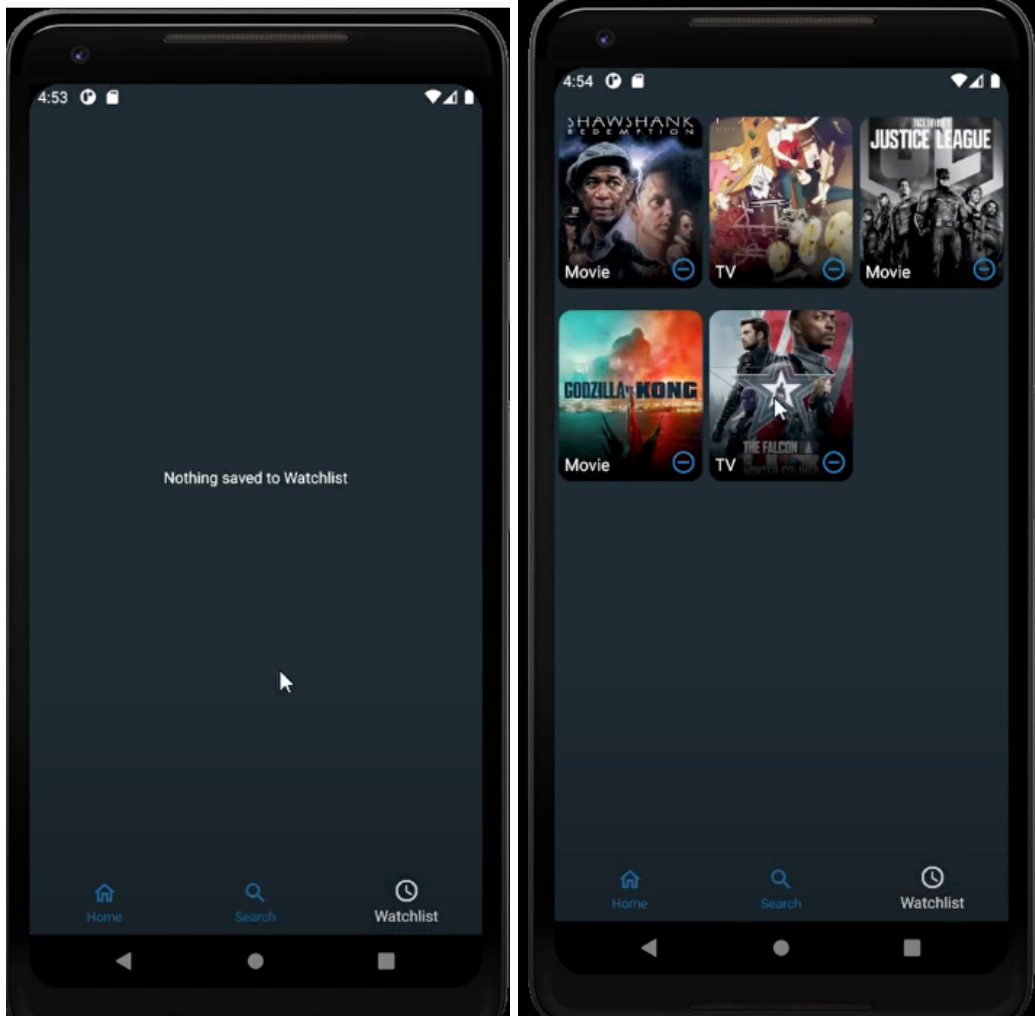
Search bar is implemented by a Toolbar that contains a SearchView widget inside it.
The search result cards below are implemented using RecyclerView. Show a maximum of 20 search results at once. If there are no search results for a query, display "No result found."

Watchlist Fragment

The idea is to give users the ability to add a movie/TV-show to the watchlist. The watchlisted items must persist even after the user has closed the app. The watchlist is implemented using a RecyclerView. The RecyclerView is displayed using the GridLayoutManager with CardView Layout. Every watchlisted card is clickable to go to the Details Activity.

Order of Watchlist: the first added is in top left corner, the latest added is in bottom right corner. Functionality: The cards in the watchlist fragment can be draggable and droppable to reorder them.(Swap the position)
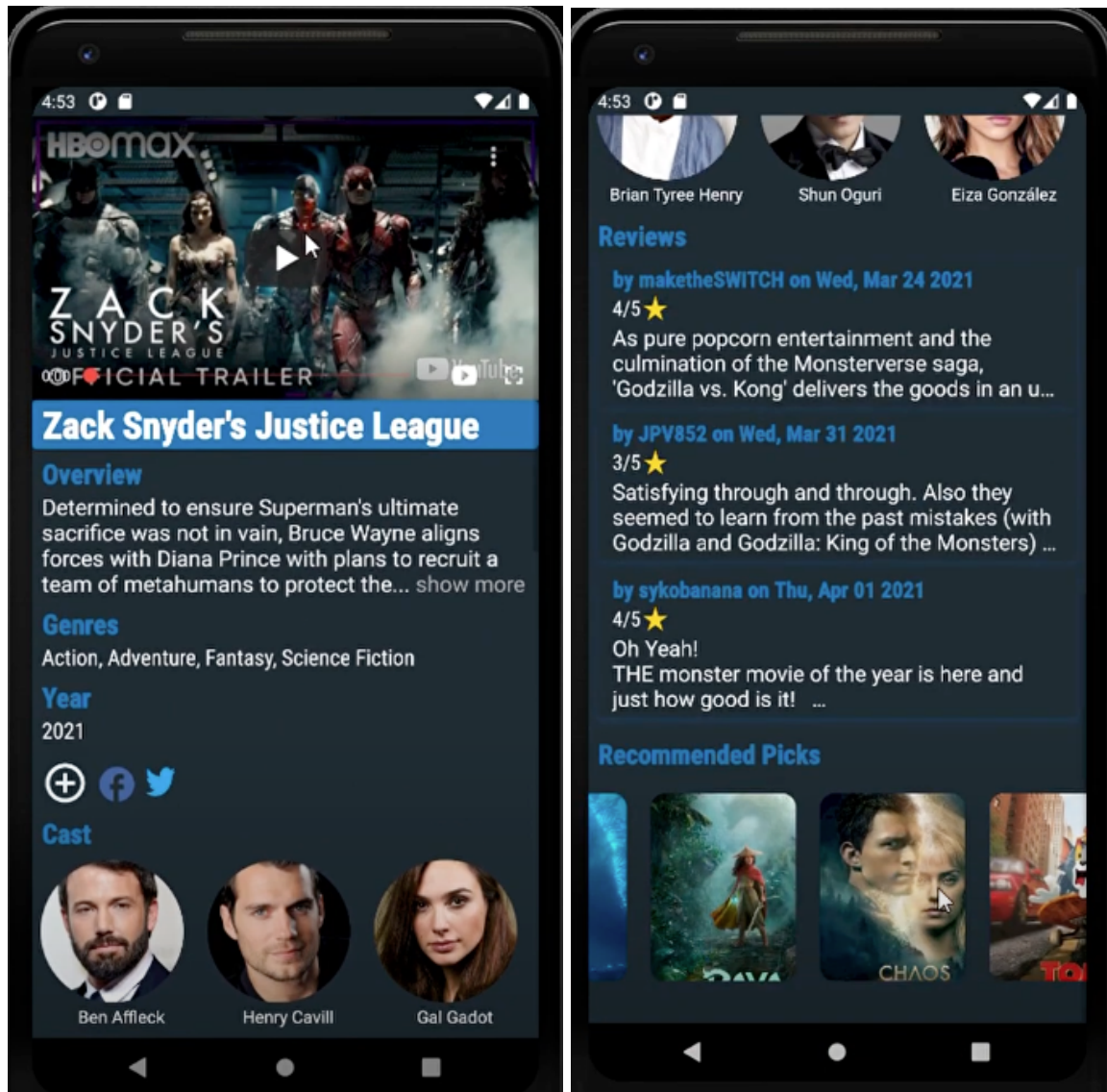
Details Activity

This Activity displays the complete details of a particular TV Show or Movie. This activity can be accessed by clicking on a particular TV Show/Movie card in the application.

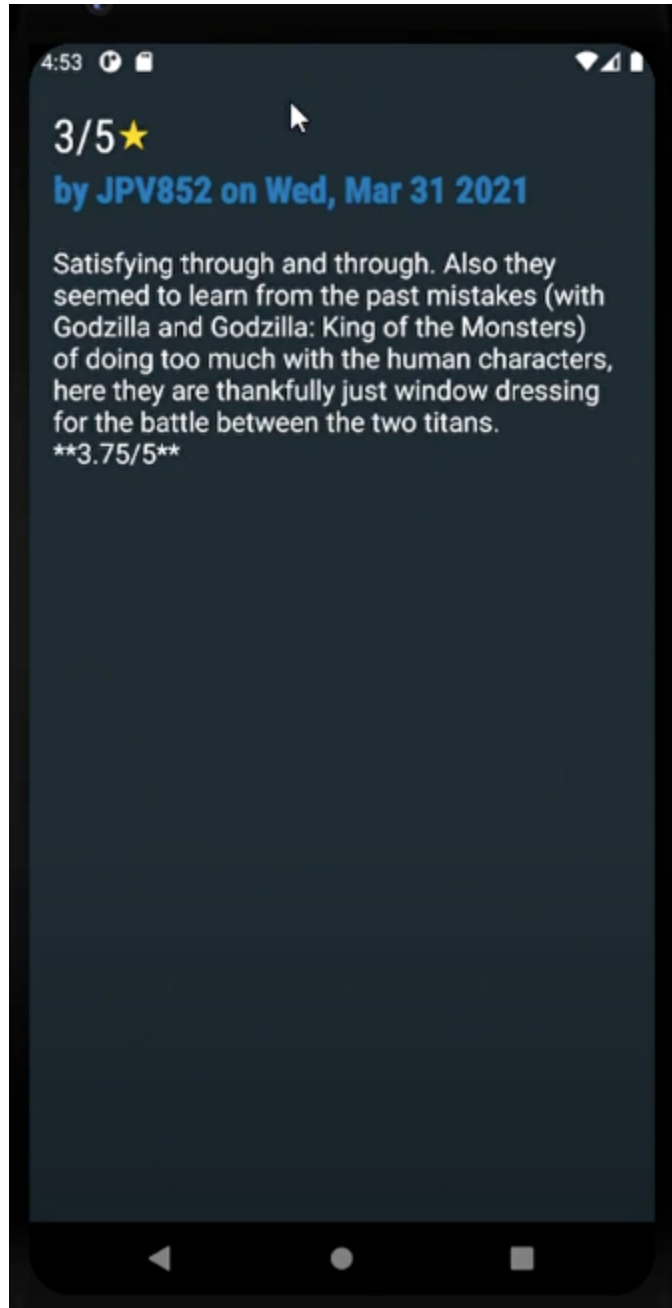**This activity can be accessed in the following ways**
1. From the home page (Click on Image Slider, or any other movie / TV show card to open it's details.
2. From the search bar (Clicking on any of the search results)
3. From Watchlist (Clicking on a watchlist item will direct you to its respective details activity.

Detail Page Contains:

1. Trailer or backdrop image(if trailer not present)
2. Title of Movie/ Tv shows
3. Overview of this media; functionality: show more & show less; implementation: ReadMoreTextView
4. Genres
5. Year

6. Buttons to let you ⊕ Add/ ⊖ Remove to watchlist, share to FB and share to Twitter
7. Top 3 Reviews; when click will show more for this reviews in a new page

a.

8. Top 10 Recommended picks.

More Information

- ***Here is a link to a video showing the complete functioning:***
  - ***Mobile/tablet Version***
    https://www.youtube.com/watch?v=rWZ3xozmlqQ&ab_channel=GayatriAtale

- ***Example of backend link which is already deployed to Azure with the link below:***
  https://hw9backendapi.azurewebsites.net/currentMovies