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User Interface Design

Team Star

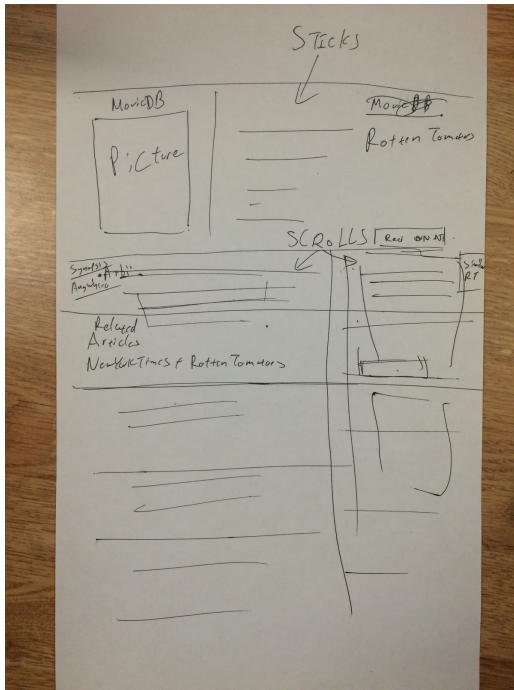
Alfred Tan - char*

Sankalpa Khadka - char**

Tommy Inouye - A*

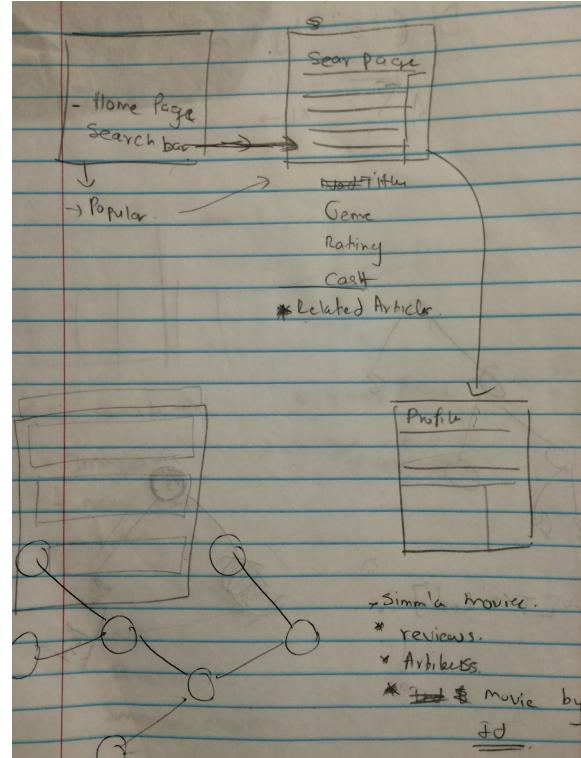
Roshen Weliwatta - kleene *

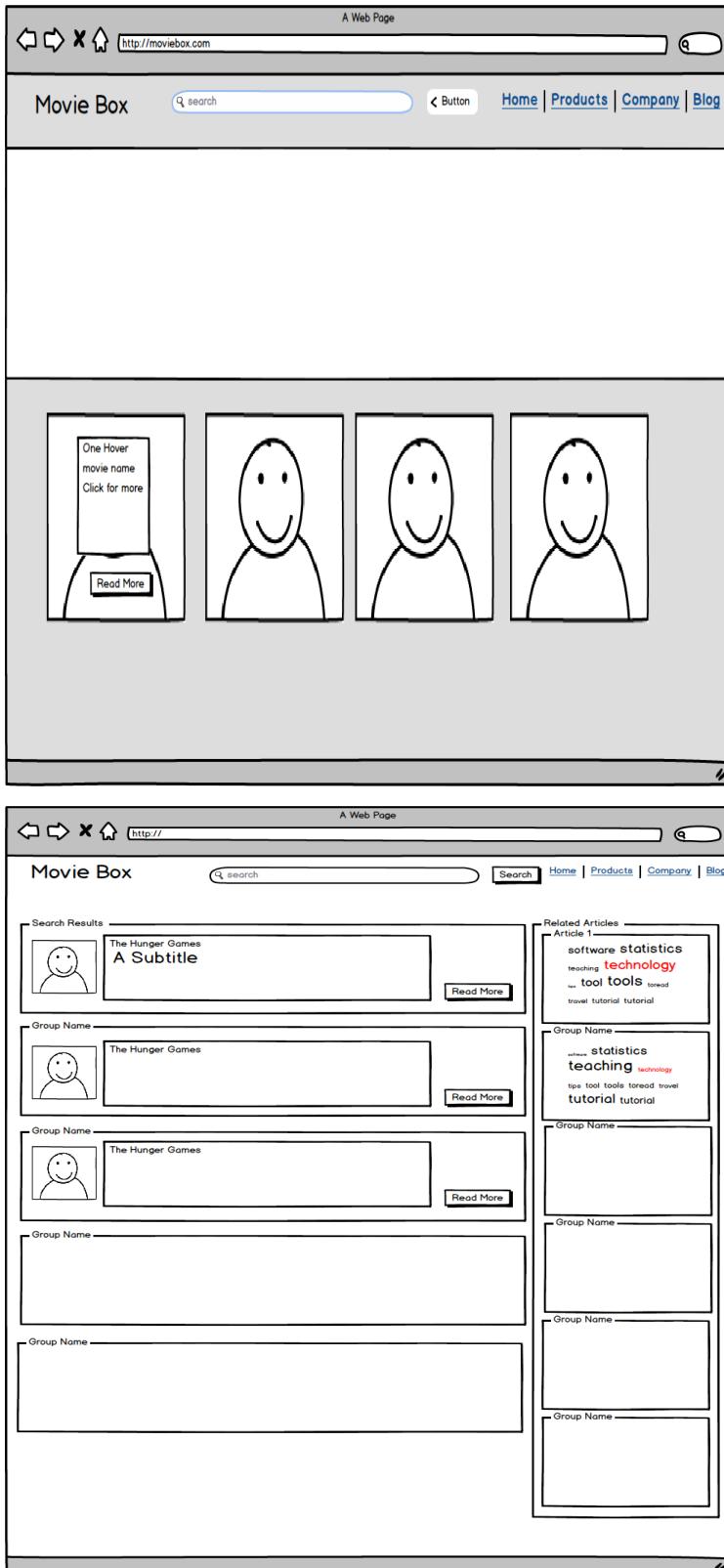
The Thinking Process



The design started with envisioning the end user and how we can build a website that could enrich the user experience using information provided by the New York time API. After much debate the team decided that we could add value by creating a tool that users can get comprehensive information about a movie, and help them to quickly decide what movies to watch through expert opinion and popularity. The API's we primarily used were NYTimes movie review, NYTimes Critic pick and moviedb API.

Before writing any code we first constructed a paper prototype of the website we envisioned. The initial prototypes were rough sketches with little detail. This not only exposed us to the challenges we will have eventually faced, but allowed us to point out potential problems that could easily have significantly hampered our progress. The advantage of this process was that we were able to sample through several prototypes and evaluate the advantages to each.





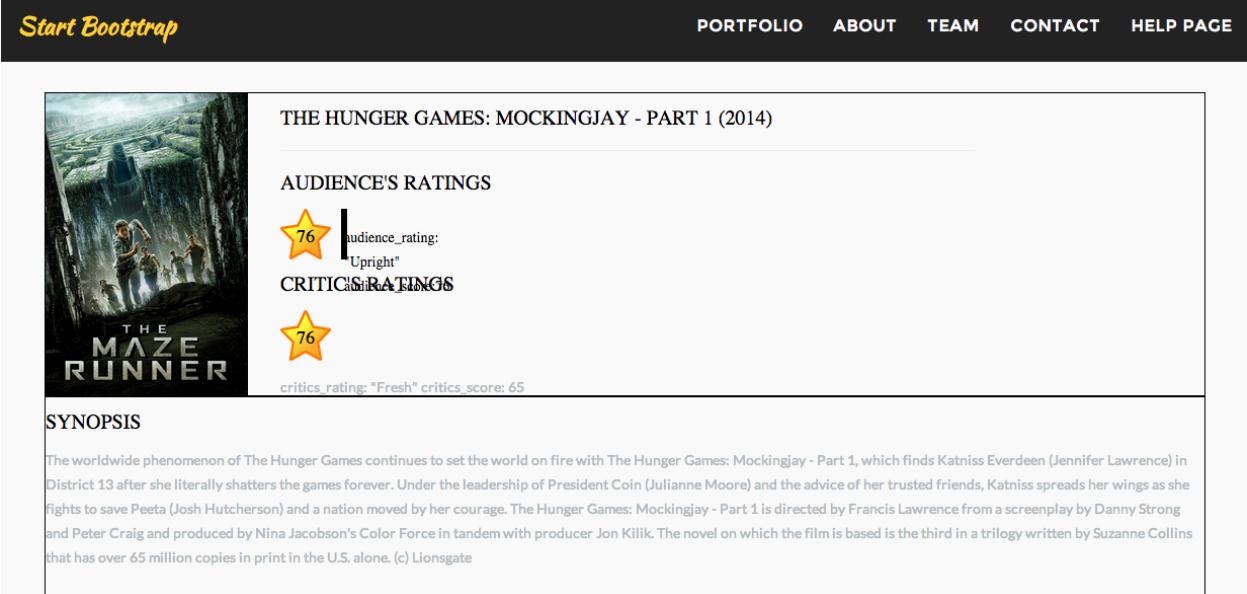
As we decided on a general direction of the design for the website, we ask each team member to create their own implementation on paper. It was very interesting to see how every member had a very different implementation for each page. This not only helped us learn about how the creative process in each of us worked but also gave us many new ideas to improve the interface.

After having decided on an implementation that we could all agree on to be intuitive and consistent, we moved on to the next step in the prototyping process with Balsamiq. Balsamiq was very helpful to create a realistic implementation of the website. Having a feel of the final product through completely changed the dynamic and thinking process as it enables us the designers to attempt to get in the feet shoes of the users.

Balsamiq prototypes shifted our thinking towards usability heuristics. With it we decided the sizes of icons, thumbnails, spacing between icons, color schemes and many other considerations. Although balsamic did not reflect our final product, it played a huge role in the construction and coding of each page.

We delegated each member responsibilities that they prefered and played to the strengths of every member in our team. At this point the whole team moved our forces from design to planning the implementation. To accomplish our goal of being a one stop shop for movie information we realized that we had to gather information using multiple API calls from multiple sources. This introduced another layer of complexity. We had not only find a way to merge all information required from multiple sources but do it fast. Making multiple calls would make the UI laggy. A laggy website would have diminished the effectiveness of all our efforts. To overcome this problem we used a combinations of AJAX and localstore native to the browser to run API calls in the background **while the user is busy with other tasks.**

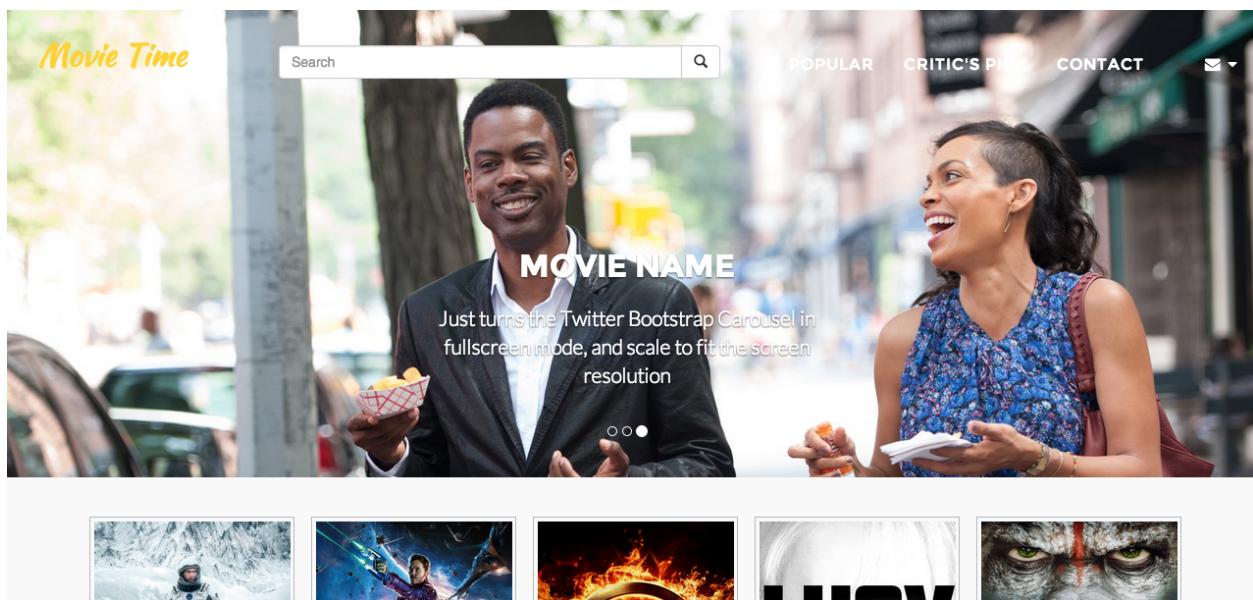
Movie Profile Page: Version 1



The screenshot shows a movie profile page for "The Hunger Games: Mockingjay - Part 1 (2014)". At the top left is the "Start Bootstrap" logo. The top navigation bar includes links for PORTFOLIO, ABOUT, TEAM, CONTACT, and HELP PAGE. On the left, there's a thumbnail for "The Maze Runner". The main content area starts with the movie's title and year. Below it is a section titled "AUDIENCE'S RATINGS" showing a yellow star icon with the number 76 and the text "audience_rating: Upright". Another section titled "CRITIC'S RATINGS" shows a yellow star icon with the number 76 and the text "critics_rating: \"Fresh\" critics_score: 65". A "SYNOPSIS" section follows, containing a detailed paragraph about the movie's plot and its place in the franchise.

Having build dummies for each of our required pages we discussed how we can inculcate usability heuristics. While not excluding any, we decided to center our design around the following heuristics:

Minimalism



This screenshot displays a minimalist movie profile page. It features a large, central image of two people smiling outdoors. Overlaid on this image is the text "MOVIE NAME" and a descriptive subtitle: "Just turns the Twitter Bootstrap Carousel in fullscreen mode, and scale to fit the screen resolution". Above the main image is a search bar with the placeholder "Search" and a magnifying glass icon. To the right of the search bar are navigation links for "POPULAR", "CRITIC'S P...", and "CONTACT", along with a small envelope icon. Below the main image, there is a horizontal carousel of five smaller movie thumbnails, each showing a different scene from a film.

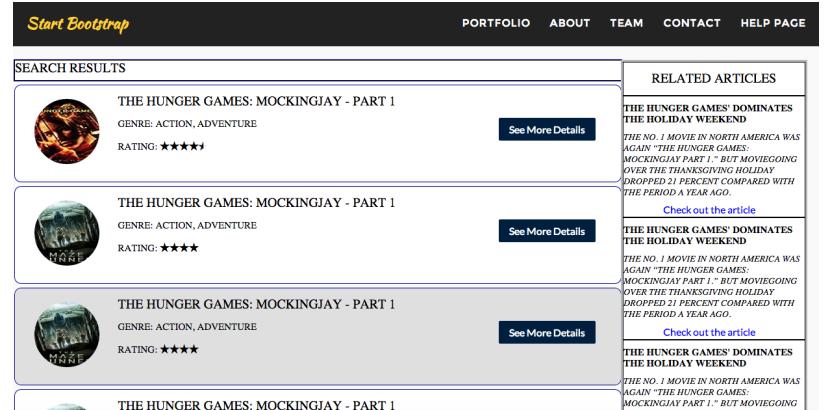
While it was tempting to populate each page with the most amount of information possible this was confusing for user. Through research we also learnt giving users fewer choices also increased the chances of them making a choice faster. Hence, we decided to go with a purely visual (image based) approach. Movie names were replaced with posters. Most text was stripped. However, if the users intended they were able to see in depth information about any movie on the profile page. The order in which each type of information was also changed to accommodate, first Video, Second images and lastly text.

Movie Profile Page Version 4



The image shows a movie profile page for "The Hunger Games: Mockingjay - Part 1". The top half features a large video player with the word "TRAILER" overlaid in white, bold letters. Below the trailer, there is a thumbnail image of a landscape from the movie. To the right of the trailer, there is a large image of actress Jennifer Lawrence's face. At the bottom left, there is a small thumbnail image of the movie poster. The bottom right section contains movie details and related movies.

Movie Details	Related Movies
THE HUNGER GAMES: MOCKINGJAY - PART 1 (2014) Rating: PG-13 Runtime: 89 Minutes Released in theater: 2013-08-10	RELATED MOVIES THE HUNGER GAMES

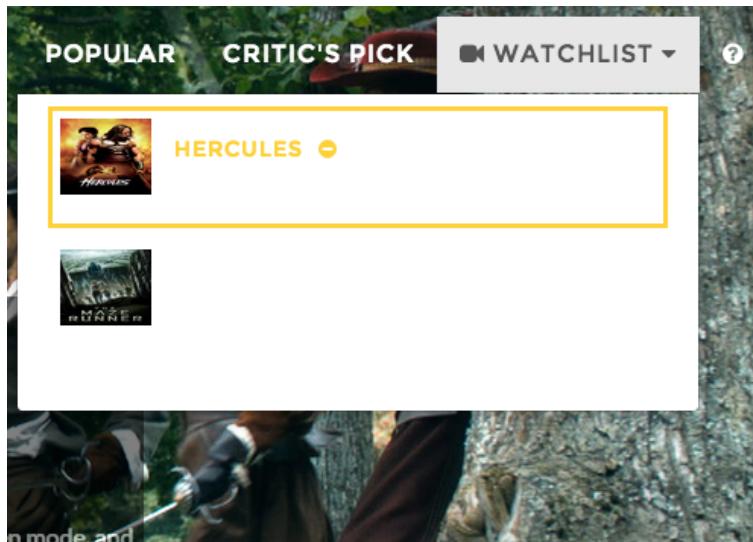


The image shows a search results page for "The Hunger Games: Mockingjay - Part 1". The results are displayed in three cards, each showing a thumbnail image, the movie title, genre, rating, and a "See More Details" button. To the right of the results, there is a sidebar titled "RELATED ARTICLES" with two sections, each containing a news article snippet and a "Check out the article" link.

Search Results	Related Articles
THE HUNGER GAMES: MOCKINGJAY - PART 1 GENRE: ACTION, ADVENTURE RATING: ★★★★ See More Details	THE HUNGER GAMES' DOMINATES THE HOLIDAY WEEKEND <small>THE NO. 1 MOVIE IN NORTH AMERICA WAS AGAIN "THE HUNGER GAMES: MOCKINGJAY PART 1," BUT MOVEGOING OVER THE THANKSGIVING HOLIDAY DROPPED 21 PERCENT COMPARED WITH THE PERIOD A YEAR AGO.</small> Check out the article
THE HUNGER GAMES: MOCKINGJAY - PART 1 GENRE: ACTION, ADVENTURE RATING: ★★★★ See More Details	THE HUNGER GAMES' DOMINATES THE HOLIDAY WEEKEND <small>THE NO. 1 MOVIE IN NORTH AMERICA WAS AGAIN "THE HUNGER GAMES: MOCKINGJAY PART 1," BUT MOVEGOING OVER THE THANKSGIVING HOLIDAY DROPPED 21 PERCENT COMPARED WITH THE PERIOD A YEAR AGO.</small> Check out the article
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User control and freedom & Error Prevention

By increasing the size of the icons and the space between them we intended to dramatically



reduce the number of error that users would make and increasing the ability to select any links or controls. The time to switch between selecting the search tab and clicking a link on the navigation was also reduced.

Watch List Version 3

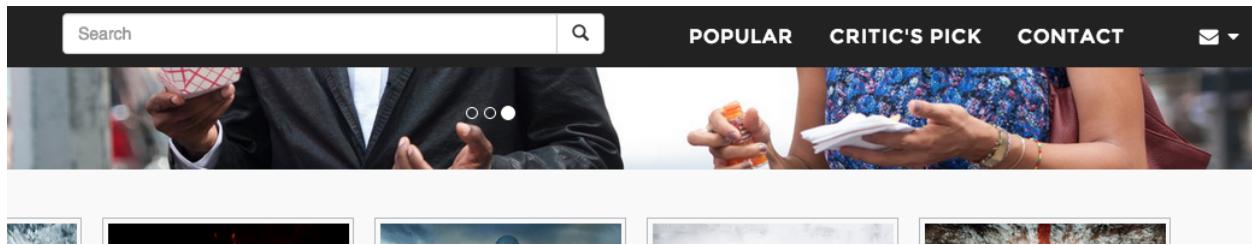
We also considered users ability of **users recognize, diagnose, and recover from errors.**

If a user accidentally adds a movie to watchlist they can easily remove those by clicking the "x" next to the name. We also take into account that the user man add the same movie more than once.

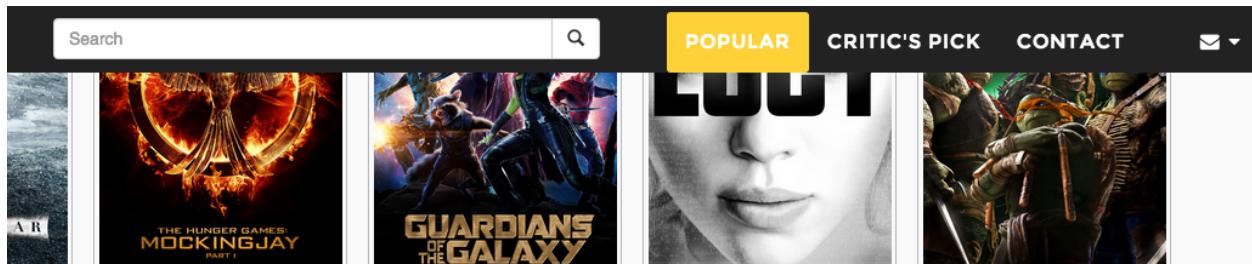
Visibility of system status

On any part of the website it is clear to the user exactly where they are or what what of the page they are. For instance when the user has scrolled down on the home page, the navigation bar indicates which part of the page the user is on. Clicking the tab automatically takes the user back the relevant section.

Before Scrolling to Popular Movies



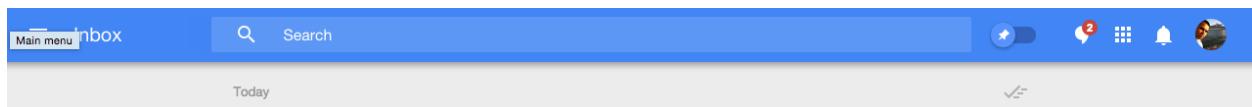
After Scrolling to Popular Movies



Recognition rather than recall & Match between system and the real world

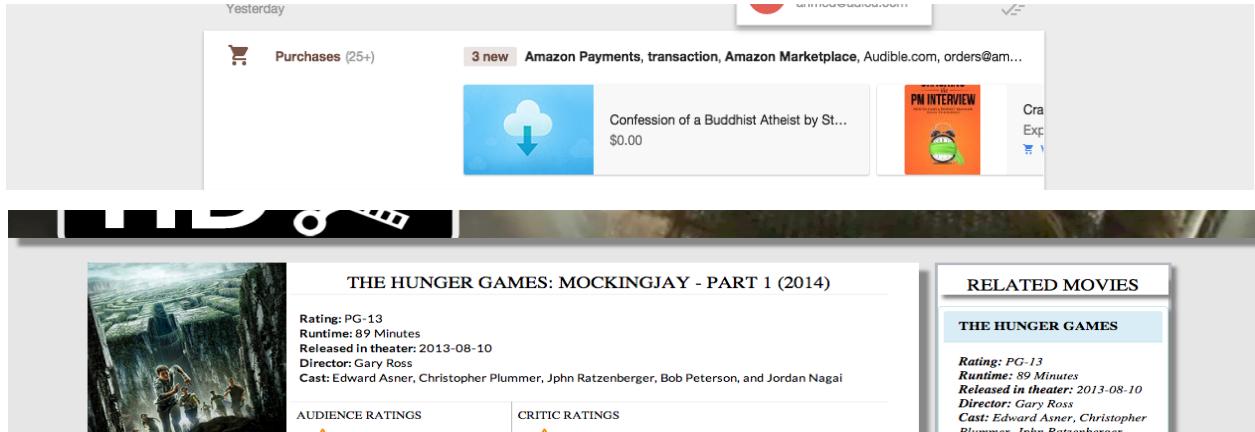
We also use techniques of displaying information navigation systems that are very familiar for the user by using UI features that are common and wide spread. We do not require the user to learn any new behaviors to use our website. For instance the displaying of search results are consistent with the home page, the navigation is common throughout the website.

Similarities Between real world UIs



Backend Processes

As mentioned earlier some of the most tedious problem that we face was to find all the information that information the user require and serve it in user friendly manner. Although the



NY time articles api and movies review Api provide a large volume of information they restricted us in many way in realizing our vision.

A screenshot of the 'Watchlist Page version 4'. The page has a dark header with a search icon, 'ABOUT TEAM', 'WATCHLIST', and a question mark icon. The main content area displays a list of four movies in cards: 'CAPTAIN AMERICA: THE WINTER SOLDIER', 'TRANSFORMERS: AGE OF EXTINCTION', 'NIGHTCRAWLER', and 'HERCULES'. Each card includes a small movie poster, the movie title, and a circular delete icon. To the right of the cards, there's a sidebar with sections like 'ARTICLES', 'CRITIST', 'NEWEST', 'GENERAL', 'OF THE NEW', and 'DR.'.

Watchlist Page version 4

While New York times remained our primary source of information, to accomplish our goal we has to use five different sources.

Sources:

New York Times Articles API

New York Times Movies API : reviews , Critics Pick

The Movie Data base Api : Primarily for images

Rotten Tomatoes API

Youtube: Trailer

Web Technologies: HTML, CSS, JavaScript, Store.js, HashmyJS, AJAX

Discussion of Shortcomings that we solved:

The New york times Movie API provided a wealth of valuable information about more movies we searched but it did not provide, genre or an image of useful resolution. Surprisingly the articles API returned large images but was not reliable as it did not always return images and not all movies have related articles. To overcome this problem we had to use multiple API.