WUD FILM MOBILE

WUD you like to see a film?



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> Fall 2016 CS 506 - Software Engineering

Requirements and Specification Document

2016-11-1, Version 1.1

Minimal updates were documented in blue and we crossed out information that was no longer relevant.

Project Abstract

Our team is developing an app that will provide users with an alternative way of getting information about upcoming movie releases presented by the WUD Film Committee. Rather than grabbing a flyer in person from the Marquee in Union South or going online and searching through the WUD Film Committee's website, our app will allow users to access information about upcoming films right at their fingertips. We will be designing an Android app that will pull titles and show-times off of the existing WUD film website (union.wisc.edu/film) automatically each week, have a place for users to sign up and be added to the WUD Film emailing list, provide access to trailers, and provide links to movie review websites such as IMDb, Rotten Tomatoes, and Metacritic. Additional (potential) features will include a social media aspect, the ability to sort and filter upcoming releases based on genre, as well as a customizable user profile page with a photo and list of favorite movies.

Document Revision History

Rev. 1.0 2016-09-30: Initial Version Rev. 1.1 2016-11-1: Version 1.1

Customer

The target users for this app will be UW students, faculty, and general Madison moviegoers. Any Android phone running on 4.0 and higher will be able to download and run the app. The app will provide a more convenient and accessible way for people to find information about upcoming film showings.

James LaPierre, the director of the WUD Film Committee is the client for this app. As the client, he has specified what features he would like to see in the app that are

realistic based on the data we have permission to access. He has also specified how he would like the user's experience and the app's layout to be.

Stephanie Webendorfer, the WUD Film Committee Wisconsin Union Marketing Specialist has said that the Union Marketing team would stay out of troubleshooting and maintenance of the app, but has offered to be involved in the development phase. She has provided the official WUD Film logo and brand guidelines, however we will not be using any official logos to avoid licensing issues and legal hoops that would delay the project. Down the line, if WUD Film officially takes over the app, they would be able to utilize their official logo.

Competitive Landscape

Competition for our app is pretty scarce because the app is exclusively for WUD Film releases. The app complements the official WUD website, since it will be supplying some of the information from that site directly through our app.

The University currently has a separate app for UW that is being promoted, however the Union is interested in an app that is geared more towards its members, creating a specific need that our app can fulfill.

The major competitors are Fandango and IMDb (the Internet Movie Database). Fandango and IMDb both have websites and mobile apps that allow users to find showtimes for specific movies. A strength of both is that they can utilize a user's location and provide the nearest theater and that theater's showtimes for the movie specified. However, both Fandango and IMDb however does not provide information on WUD Film Cinema Union South Marquee showtimes. While Fandango does provide showtimes for the Marquee at Union South, if location services can place you nearby, its features are not specifically tailored to the Marquee, nor UW Madison students. Although they are both well established brands, they do not and cannot provide the information that our app is going to supply. will not be able to match the convenience of our app.

The demand for easily accessible information about WUD Film's releases will be met by our app, which will provide a simple user interface to find specific film showtimes at the Union Marquee. This is a very niche market since WUD Film's showings are free to the public, meaning the desire to develop competing apps is very low since there is no monetary incentive.

User Requirements

Our mobile app is going to provide information about the upcoming movie releases from the WUD Film Committee. The main purpose of the app is to make this information easily accessible to a large number of people.

- 1. User opens the app
 - a. User is directed to the Movie Showtimes page by default
 - b. The application loads and displays the list of movies (as tappable tabs) with their corresponding dates and times.
 - c. The tabs for the movies are color-coded based on their genre
 - d. A user can click on any of three things on this screen: the envelope icon, the gear icon, or one of the movie tabs listed. The email icon leads to the mailing list sign up; the gear icon leads to the settings page; any of the movie tabs listed will expand in an accordion style for more information.
- 2. On the Movie Showtimes page, a user selects a specific movie's tab and the following information is displayed in an accordion style dropdown
 - a. MPAA rating
 - b. Synopsis for the film
 - c. Film's runtime
 - d. Poster for the movie
 - e. Link to the movie's trailer (from Youtube)
 - f. Buttons that link to review sites
 - i. IMDb
 - ii. Rotten Tomatoes
 - iii. Metacritic
- 3. User selects the email icon for the Email List Sign Up
 - a. User is brought to a page where he or she can enter his or her name and email address
 - b. User hits the submit button
 - i. A note will pop up letting the user know if the submission was received successfully
- 4. User selects the settings icon
 - a. User can view the different settings options and customize the app to their liking

- b. User can swipe to enable or disable a feature
- c. User can click on the "Disclaimers" option on this screen
 - i. User will be directed to the Disclaimers page
- 5. User clicks on the WUD Film logo
 - a. User will be returned/redirected to the home page

Use Cases

Priority: Must Have

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|------------------------|---|
| Name | Main screen |
| Actors | User |
| Triggers | The app is opened |
| Events | WUD Film movie listings are loaded onto the screen (pulled from WUD film website) |
| Exit Conditions | Close the app |
| Post Conditions | App has been closed |
| Acceptance Test | Open a different app |

Priority: Must Have

| Name | Email subscription page |
|-----------------|--|
| Actors | User |
| Triggers | User will click on the Email icon on the top left side of the app main page header |
| Events | A form page is opened allowing the user to input their email address; A Submit button is pressed to submit the email address to the WUD Film website |
| Exit Conditions | Click the Back button to cancel the page Click the Submit button to submit the email address and be redirected back to the Main Page |

| Post Conditions | Main Page is shown, email address is submitted to either a Google Doc or an Excel spreadsheet provided by WUD |
|------------------------|--|
| Acceptance Test | User will receive an email confirmation from WUD Film to confirm their request and acceptance to email subscriptions |

Priority: Useful

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| Name | Settings page |
| Actors | User |
| Triggers | Click on the Settings icon on the right side of the header at the top of the Main Page |
| Events | Pulls up the settings page, displaying multiple settings including: app notifications, text size, color scheme customization |
| Exit Conditions | Click the Save button to save settings changes and go back to the Main Page Click the Back button to go back to Main Page without saving settings |
| Post Conditions | The settings are saved and main page is shown The settings are not saved and main page is shown |
| Acceptance Test | Click on Settings again to verify that the settings changes have been saved. If Notifications are selected in settings, a badge icon will be shown when the next showtime is happening If Text Size is changed, all pages of the app will have enlarged/small text If Color Scheme is changed, all pages will have a different color scheme |

Priority: Useful

| Name | Disclaimers page |
|------------------------|--|
| Actors | User |
| Triggers | Click on disclaimer link/button at the bottom of the Settings page |
| Events | A Disclaimers page is opened displaying any Disclaimers of the application |
| Exit Conditions | Click the Back button to back out of page |

| Post Conditions | Settings page is shown |
|------------------------|---|
| Acceptance Test | Click on disclaimers button/link and check to see the disclaimers are displayed correctly; Back out and check to see settings page is shown |

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| Name | Film Detail Expansion | |
| Actors | User | |
| Triggers | Tap on a Film Listing anywhere within the bounds of that listing | |
| Events | Film Listing expands downward to reveal larger poster icon, MPAA rating, IMDb/RottenTomatoes/Metacritic scores/links, synopsis of the plot, runtime, and youtube link to trailer (Expanding one film does not close any other expanded films) | |
| Exit Conditions | Event is toggleable (Tap to open, tap to close) | |
| Post Conditions | The film details are contracted back to leave the original listing remaining | |
| Acceptance Test | Tap on a Film Listing and witness the toggle ability function in action (Each film displays information correctly and reverts back to correct information) | |

Priority: Useful

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|------------------------|---|
| Name | Link to RottenTomatoes/IMDb/Metacritic/Youtube Trailer |
| Actors | User |
| Triggers | Tap on the icon corresponding to either one of the sites |
| Events | We first attempt to send user to corresponding app if it exists/ if they have it downloaded. Otherwise the User is sent through their preferred browser to the corresponding page of the related film/trailer |
| Exit Conditions | User backs out of their browser returning to main page |
| Post Conditions | Main page is displayed with film details still expanded |

Acceptance Test

Tap on the IMDb, Metacritic, and RottenTomatoes icons resulting in their preferred browser appearing with the correct information for the selected film; On return from browser main page is displayed with film details still expanded

User Interface Requirements

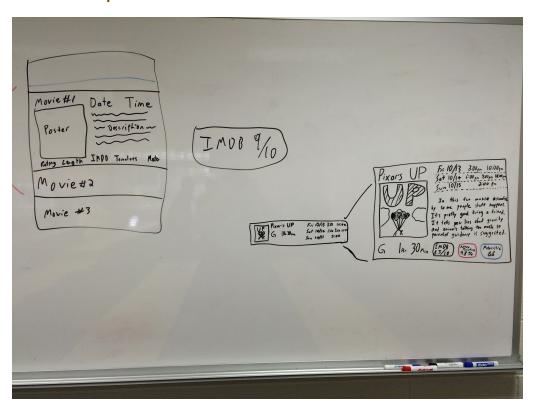
Our app aims to provide users with WUD film showtime information right at their fingertips. Although the same information is available on the WUD film website, our app would display the information in a way that maximizes efficiency, saving users time and minimizing confusion and frustration in the process. The layout and interface of the app will capitalize on standard organization techniques (relevant, most recent data at the top) and intuitive controls (common touchscreen commands, such as tapping and swiping). A navigation bar, conveniently located permanently at the top of the screen, will concisely display icons or brief text representing the different pages of our app.

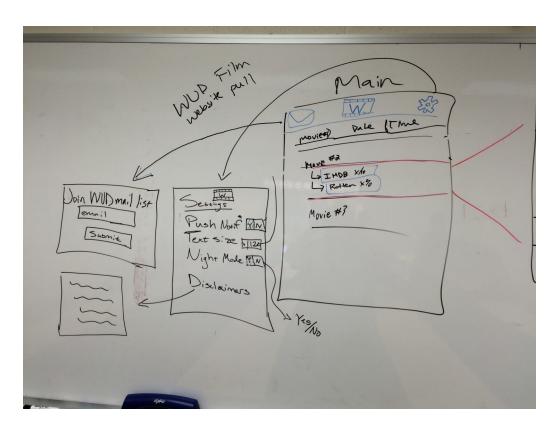
Our app will have 3 main pages: Email List Sign Up, Movie Showtimes (Main Page), and Settings, represented by an envelope, "WUD Film", and a gear icon respectively. There will be a subpage to the settings page for disclaimers. By default, upon opening the app, users will see the Movie Showtimes page, which has a list of vertically displayed movie titles and their corresponding dates and showtimes. When users select a movie, by tapping on it, the tab will expand downwards to display more information about the film. This information will include the MPAA rating, movie synopsis, theatrical trailer, runtime, theatrical poster and tappable buttons that link to IMDb, Rotten Tomatoes, and Metacritic. To collapse the expanded tab, users simply tap back on the movie to hide all of the extra information.

The leftmost button in the navigation bar is the email icon, which users can tap in order to sign up for the WUD emailing list. Users will be brought to a new page where all they have to do to sign up is fill in their name and email address.

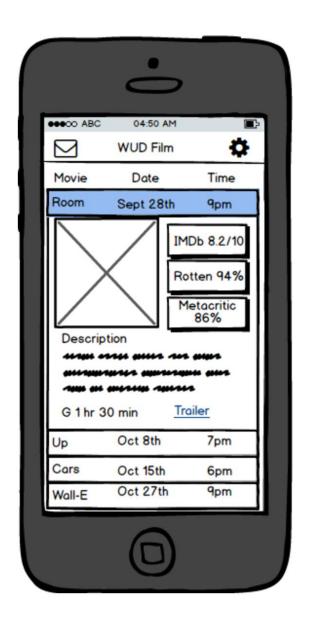
The rightmost selectable icon is the gear, which a user can tap to enter the settings page. On the settings page, users will have the option to toggle a variety of settings, including Night Mode, Push Notifications, and Big Text Mode. Users will also be able to view legal disclaimers.

The Initial Concept





Mock Ups







Security Requirements

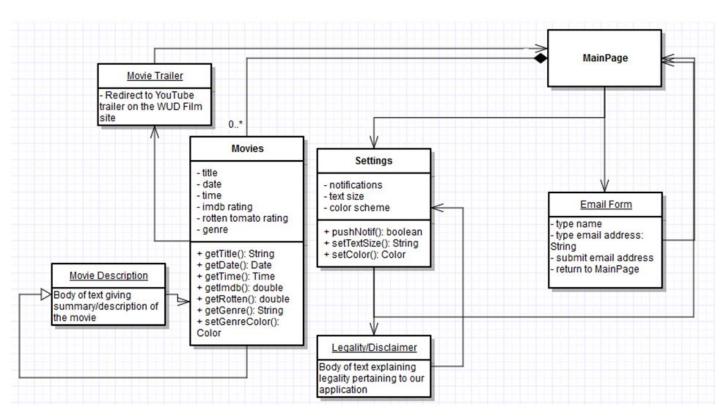
The app is going to be run locally, so each device will only contain the code to draw up the database in the first place. No personal/sensitive information will be used. The only potential security concern is regarding a user's email when they choose to sign up for the WUD's emailing list. This could potentially be an issue only if some third-party malware would intercept the information as it's being sent to the WUD website. However, this would not be the responsibility of the application because it would require either the user or the WUD website to be compromised, and this is something we do not have any control over.

Because WUD Film is unwilling to provide servers for us to store login data, users will not log in to the app in any capacity, thus anyone with unrestricted access to the users phone, will have access to their version of this app. This lack of authentication should be acceptable considering that the app holds no sensitive or personal information whatsoever. Access is controlled by the requirement to have the app on your Android phone. The app itself will run autonomously, thus no one should have access to the backend whatsoever, save for if the WUD Film committee decides to hire a development team to improve or adapt our product.

System Requirements

This application requires an Android Phone with Android 4.0 (API level 14) or higher. It will not need more than 60 MB of Internal storage (average Android application) and will not be using the phone's memory. A user would need to have a Wi-Fi connection and the capability to connect to the Internet on their Android phone. This application will depend on Apache for the web server, since it will be fetching and sending data to and from the existing WUD film website through an HTTP client. The Android phone must have a touchscreen interface. It will need to run fast enough to be convenient for the user. The specifics of this will largely be determined during the latter beta testing phases of iteration 2, and 3. We may consider splitting up data fetching to improve speed if initial loading times are unsatisfactory.

Specification



(above UML diagram created with Gliffy)