Project Proposal

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CSCI 4100U - Mobile Devices

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Project Overview

The mobile application "Cinemate" offers clients a highly convenient tool for accessing up-to-date movie showtimes from real-time databases. This app simplifies the process of planning entertainment expenses. It is designed to include various useful features, such as locating nearby cinemas and listing movie showtimes along with their daily schedules and cinema contact information. Additionally, clients can create an account that allows users to favorite their cinemas and movies, configure the location and manage notifications settings among other features. Moreover, users can access real-time movie details like genre, duration, cast, cinema information, ticket availability, and upcoming showtimes, and share their favorite movies through their email, WhatsApp, Instagram, etc, and more. The app also aims to furnish users with cinema operational hours, suggestions for daily deals and upcoming events, notifications and personalized recommendations based on client activity. Overall this application aims at providing the clients with a user-friendly interface with robust features to better their experience at the Cinema.

Group Members and Responsibilities

- **Gabe Vallestero**
  - Handling interactions between UI and Backend and support backend coding
- **Gerhard Yu**
  - Handle movie data like sorting and movie availability also aiding HTTPS requests
- **James Yang**
  - Manage HTTP requests and process the received data. Collaborate with the front end to present these data in a way for users to visualize and interact with.
- **Thanushan Satheeskumar**
  - Designing front-end and creating practical functionality for application. Aiding with HTTPS requests and database tasks.
- **Vedant Vaidya**
  - Developing user-friendly UI design and backend code optimization including efficiency of the app infrastructure and algorithm improvements.

List of Features

Home Page:

- Able to list popular available movies of a certain cinema that selected by user or nearby cinema, or current trending movies if user did not provide permission to share their location, event section display up-to-date event information, you may like section display movies similar to the movies the user recently viewed
    - Functional requirements:
        - Gridview layout
        - SnackBar: press and hold to favorite movie, notify user had successfully favorited movie
        - Http requests for movie data(poster or and name)
        - Scroll Down to refresh page
        - SQLite for user data such as selected cinema
        - Cloud storage that store movie data that will sent to client side according to the cinema that selected by user, if not, generate some trending movies
        - Notification for new updated movies
    - Non-functional requirements:
        - Auto refresh page every 3 hours
        - SnackBar: optional undo button that undo favorite movie
        - New Movies and Events Notifications
- Allow user to click on each movie to view Movie info such as:
    - Functional requirements:
        - Multiple screens and navigation to new page when user clicked movie
        - HTTP requests for basic information about the movie:
            - Genre, actors, movie length, directors, etc.
            - Movie schedule for the current cinema
            - Availability on user selected cinema/nearby cinema/availability drop down list if available on other cinemas
            - Movie trailer option
        - Previous page button
            - navigation

            - Favorite movie button
                - Snackbar
            - Share button to share the movie
                - Stay on app or go to shared app dialog
                    - Navigation to shared app

Browsing Page:

- List all available movies of a certain cinema in a certain distance from current location
    - Functional requirements
        - Http requests, cloud database: Listview of all the genre, user will browse all available movies according to different genre, or the all option
            - Picker for sort movies option, by popular, newest, oldest, etc
            - Cloud database that has different movie tables according to their category, user on client side will select one category and make request that receive movie data and generate on the client side in listview form
- Click to view movie info, same features with home page's click and view movie
    - Http request for movies' info
    - Snackbar
    - Navigator
    - Share movie
- Favorite movies
    - Functional requirements
        - Horizontal Listview of the favorited movies
            - Sqlite that keep track of user' favorited movies
- Search option
    - Functional requirements
        - Http request for the movie/name related movies when user enters some text and click search
        - Navigator

Cinema/Location Page:

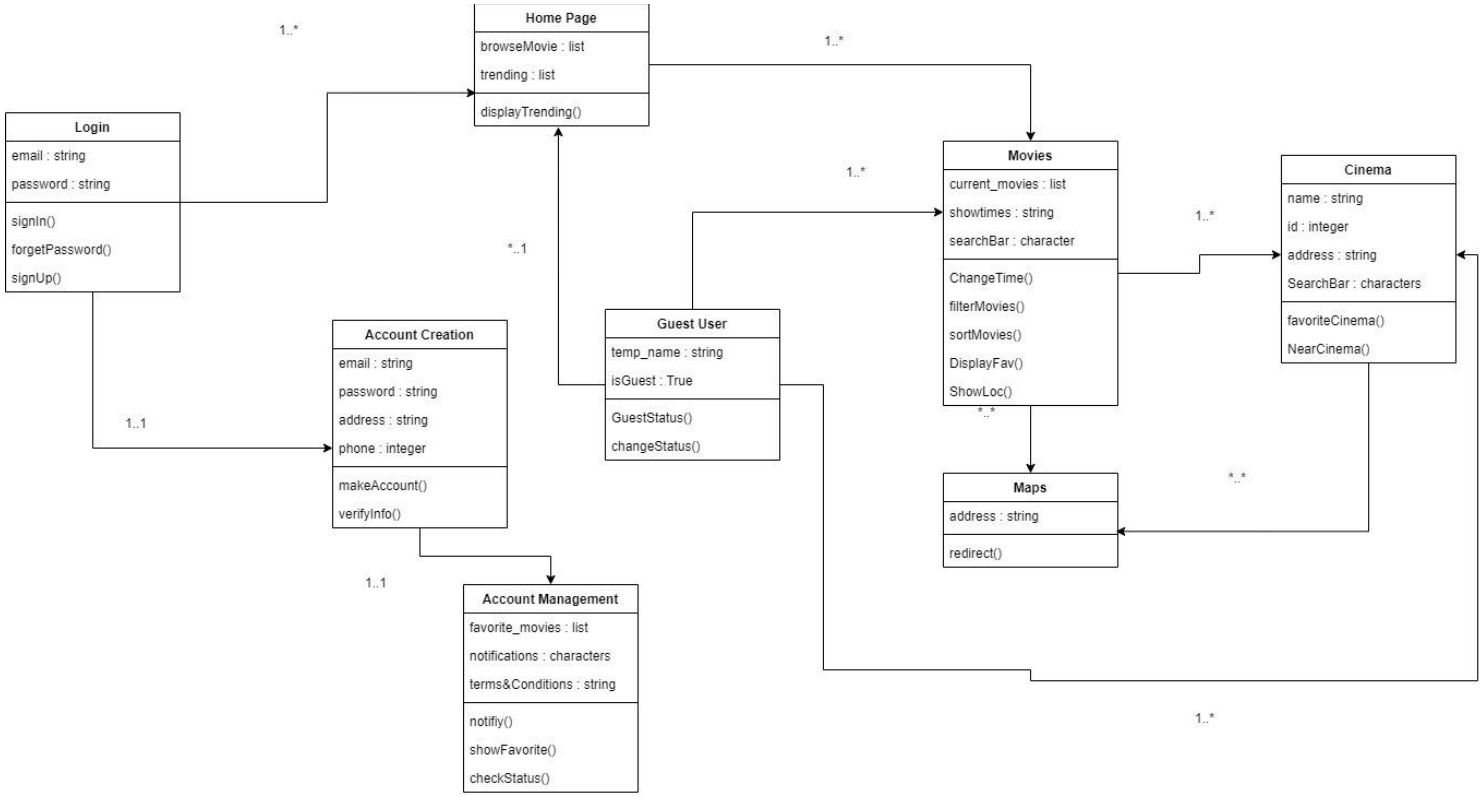
- Able to show the user the way to their desired cinema from their current location
- Favorited cinemas

    - Horizontal listview
    - SQLite to keep track of user' favorited cinemas
- Includes each cinema contact information and when they are open
    - Functional requirements
        - Dialogs for the user to answer for the app to provide a tailored result
        - Snackbars if something is entered incorrectly
        - Local Storage to keep user's previous entries
        - HTTPS to get data on other cinemas
        - List of user's (if user is not a guest) favorite movies
    - Non-functional requirements
        - Maps/Geolocation to check user location and provide nearest cinemas
        - Data tables for a list of cinemas
        - List of each cinema opening times

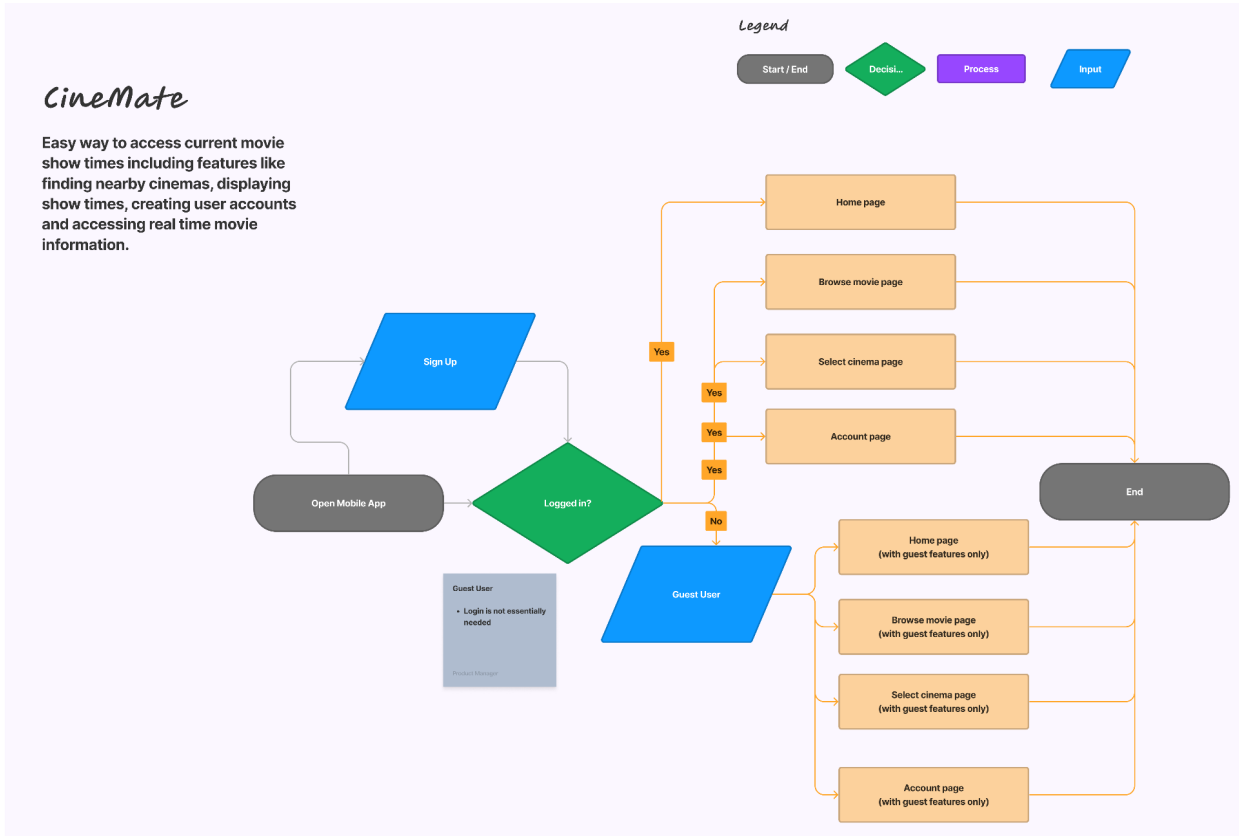
Account Page:

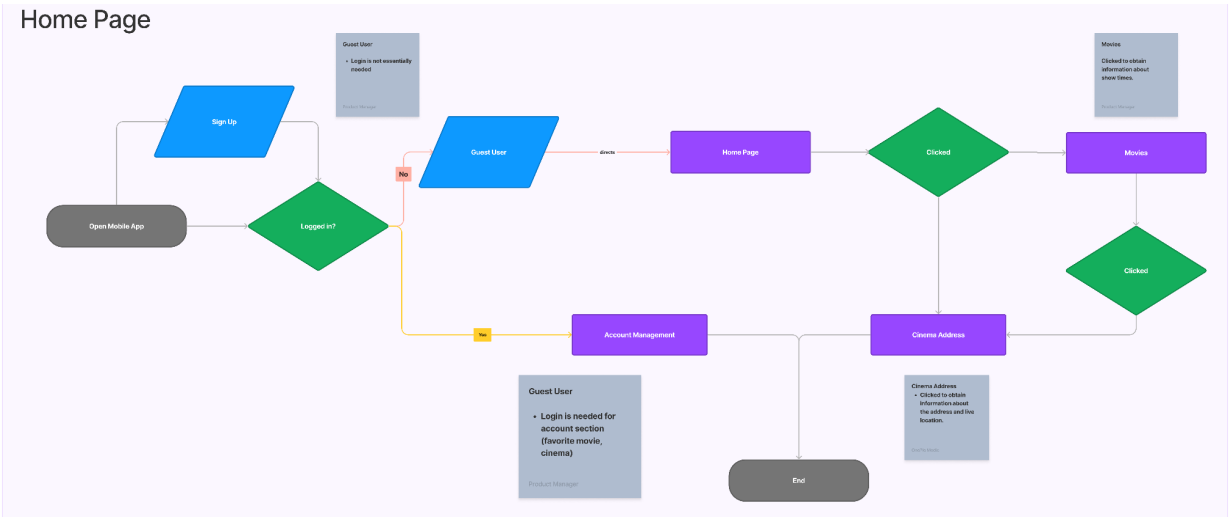
- Account info
- Favorite Cinemas
- Location settings
- Notification settings
- Terms & Conditions
- Login & Logout button
    - Functional requirements
        - Dialogs and Pickers to get the user's information
        - Local and Cloud storage to store user account information
        - Uses Snack Bars to confirm changes
        - Changes notifications based on user preferences
    - Non-functional requirements
        - Maps/Geolocation to check user location and provide nearest cinemas

Code Design/UML Diagram

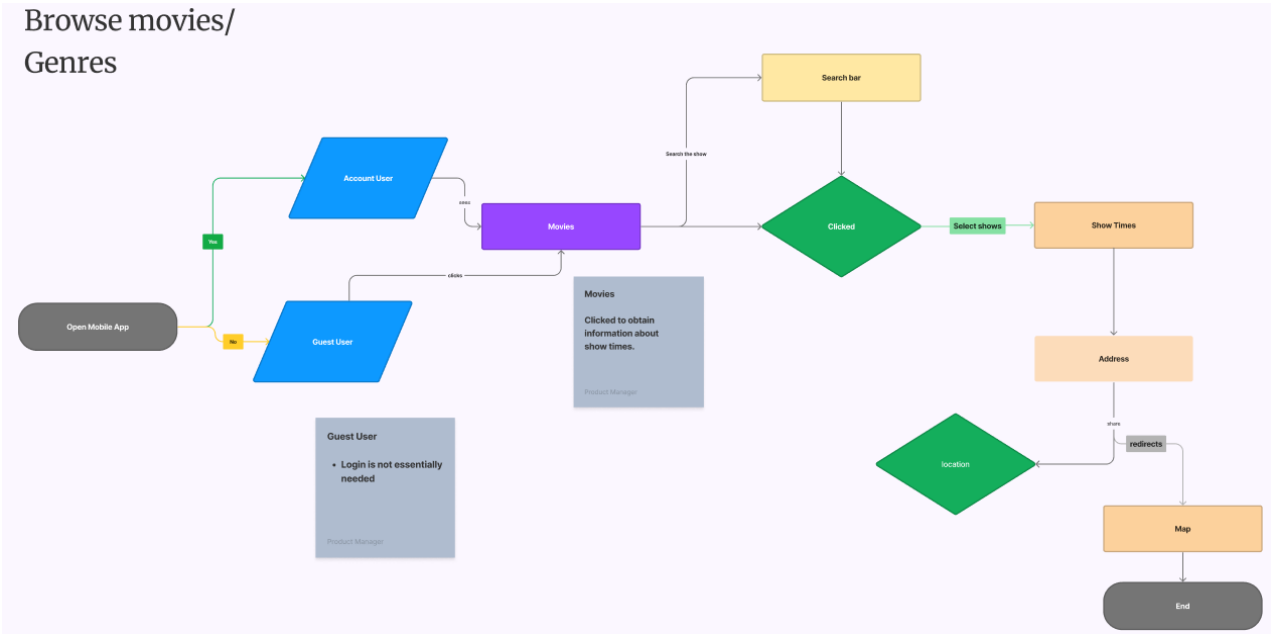


Activity Diagrams

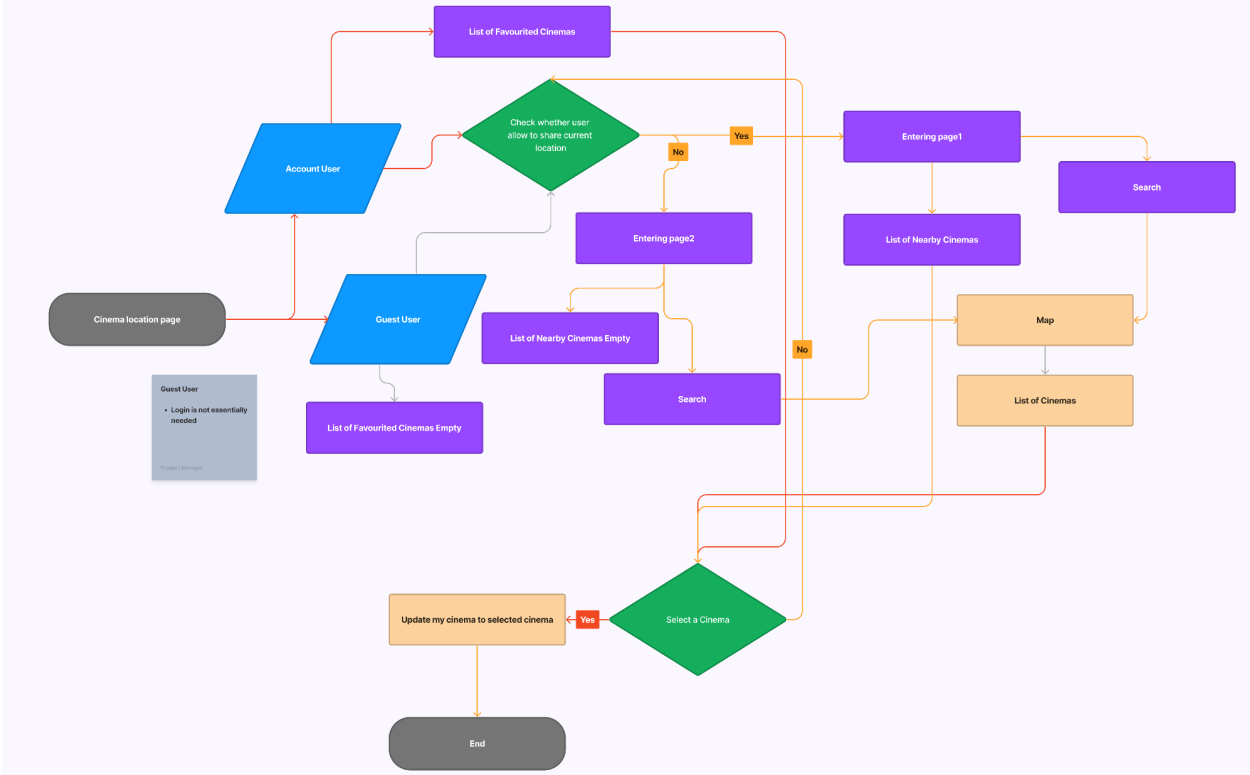


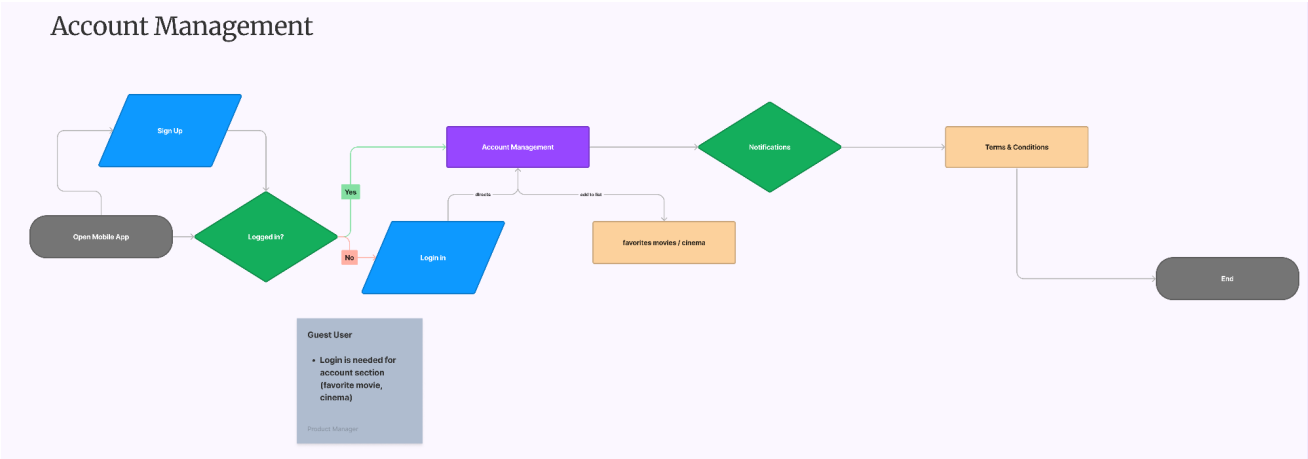


Browse movies/ Genres

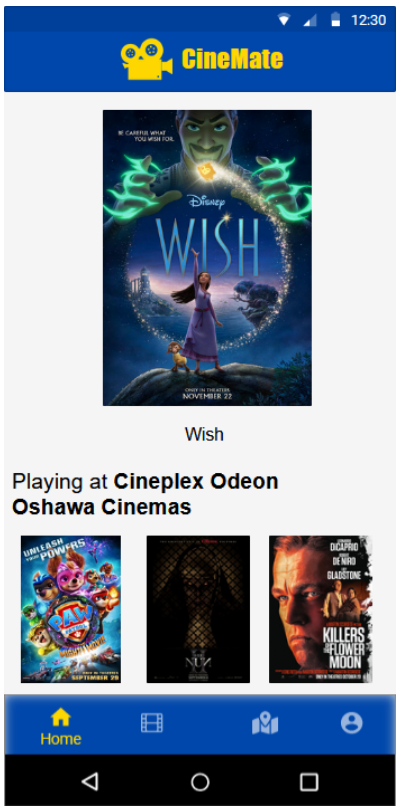


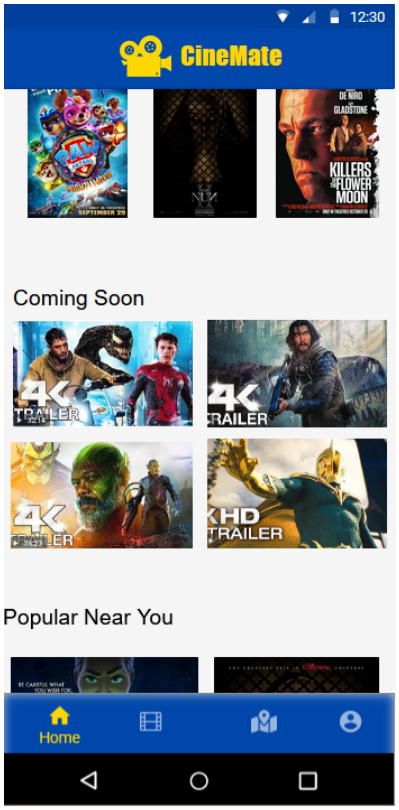
Select a cinema

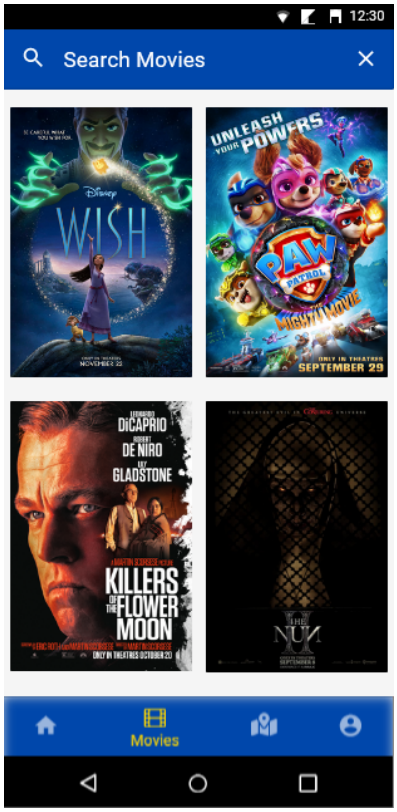


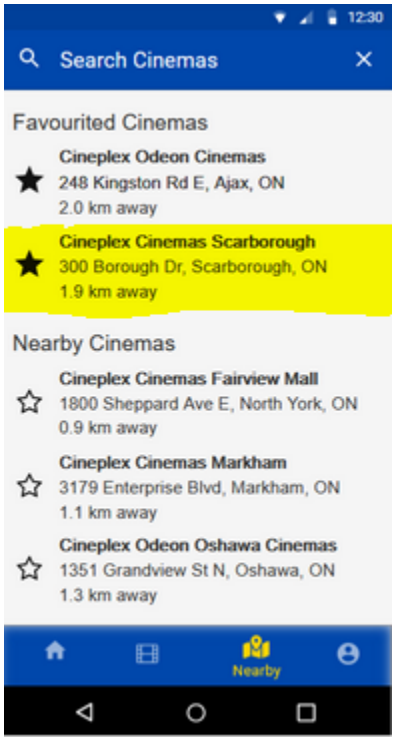


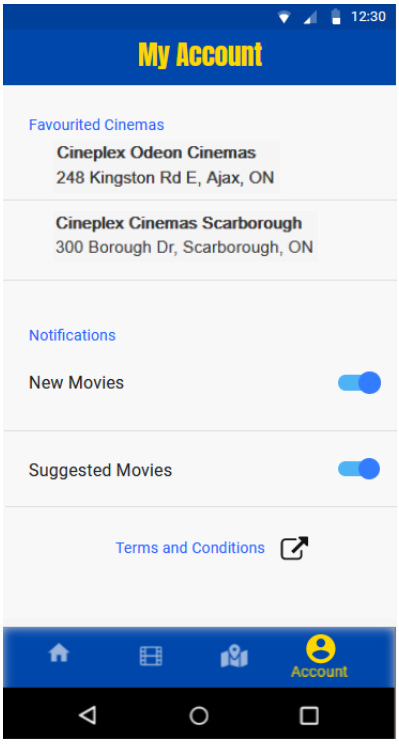
Mock User Interface

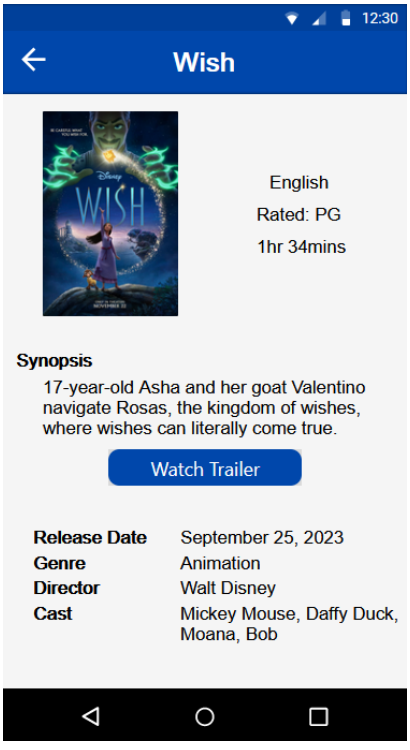

12:30
CineMate
Wish
Playing at **Cineplex Odeon Oshawa Cinemas**
Home

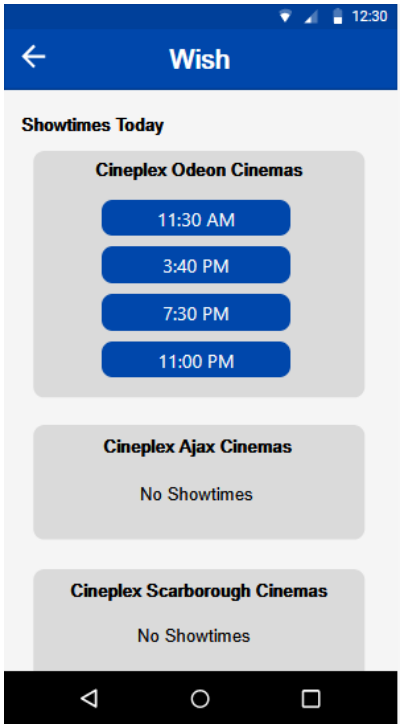

12:30
CineMate
Coming Soon
Popular Near You
Home


12:30
Search Movies
Movies


12:30
Search Cinemas
Favourited Cinemas
Cineplex Odeon Cinemas
248 Kingston Rd E, Ajax, ON
2.0 km away
Cineplex Cinemas Scarborough
300 Borough Dr, Scarborough, ON
1.9 km away
Nearby Cinemas
Cineplex Cinemas Fairview Mall
1800 Sheppard Ave E, North York, ON
0.9 km away
Cineplex Cinemas Markham
3179 Enterprise Blvd, Markham, ON
1.1 km away
Cineplex Odeon Oshawa Cinemas
1351 Grandview St N, Oshawa, ON
1.3 km away
Nearby


12:30
My Account
Favourited Cinemas
Cineplex Odeon Cinemas
248 Kingston Rd E, Ajax, ON
Cineplex Cinemas Scarborough
300 Borough Dr, Scarborough, ON
Notifications
New Movies
Suggested Movies
Terms and Conditions
Account


12:30
Wish
English
Rated: PG
1hr 34mins
Synopsis
17-year-old Asha and her goat Valentino navigate Rosas, the kingdom of wishes, where wishes can literally come true.
Watch Trailer
Release Date September 25, 2023
Genre Animation
Director Walt Disney
Cast Mickey Mouse, Daffy Duck, Moana, Bob


12:30
Wish
Showtimes Today
Cineplex Odeon Cinemas
11:30 AM
3:40 PM
7:30 PM
11:00 PM
Cineplex Ajax Cinemas
No Showtimes
Cineplex Scarborough Cinemas
No Showtimes