

## Project Proposal for Cinemagic App

### Team Members:

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### High-Level Description:

Cinemagic is a comprehensive mobile application dedicated to movie enthusiasts. It offers a platform to explore new and popular movies, delve into detailed movie information, and maintain a personalized list of favourite films. Leveraging data from The Movie Database (TMDB) API, the app aims to keep users informed and engaged with cinematic content.

### UI Organization and Screen Details:

#### Home Screen

- Displays movies in horizontally scrollable lists categorized as 'Now Playing', 'Popular', and 'Top Rated'.
- Features a navigation bar for quick access to Search, Favorites, and Settings.
- Each movie item can be tapped to view more details.

#### Search Screen:

- Provides a search bar at the top, allowing users to search for movies by title.
- Displays search results in a vertically scrollable list.
- Search results can be tapped to view detailed movie information.

#### Movie Detail Screen:

- Shows detailed information about the selected movie, including the poster, synopsis, cast, trailers, and ratings.
- Offers buttons for adding the movie to favourites and sharing movie details on social media.

#### Favourites Screen:

- Lists movies that the user has marked as favourites in a vertically scrollable view.
- Allows users to remove movies from favourites or tap to revisit movie details.

### TMDB API Integration Details:

The Cinemagic app will leverage The Movie Database (TMDB) API to fetch and manage movie-related data, providing users with a rich and interactive experience. Below are the specific API endpoints the app will utilize:

- User Account and Authentication:

Create Request Token: GET <https://api.themoviedb.org/3/authentication/token/new> will be used to initiate user authentication, allowing for personalized interactions with the app, such as favoriting movies and managing watchlists.

- Movie Discovery and Management:

Movie List: GET <https://api.themoviedb.org/3/movie/changes> to fetch a list of movie IDs that have changed in the last 24 hours, ensuring users have access to the latest information.

Favourite Movies: GET [https://api.themoviedb.org/3/account/{account\\_id}/favorite/movies](https://api.themoviedb.org/3/account/{account_id}/favorite/movies) and POST [https://api.themoviedb.org/3/account/{account\\_id}/favorite](https://api.themoviedb.org/3/account/{account_id}/favorite) to retrieve and update the user's list of favourite movies.

Watchlist Movies: GET [https://api.themoviedb.org/3/account/{account\\_id}/watchlist/movies](https://api.themoviedb.org/3/account/{account_id}/watchlist/movies) and POST [https://api.themoviedb.org/3/account/{account\\_id}/watchlist](https://api.themoviedb.org/3/account/{account_id}/watchlist) for managing the user's watchlist, adding new movies, and retrieving the list.

Rated Movies: GET [https://api.themoviedb.org/3/account/{account\\_id}/rated/movies](https://api.themoviedb.org/3/account/{account_id}/rated/movies) to access a list of movies rated by the user, enriching the personalized content offered by the app.

- Visual Content:

Images: GET [https://api.themoviedb.org/3/collection/{collection\\_id}/images](https://api.themoviedb.org/3/collection/{collection_id}/images) will be used to retrieve images belonging to a movie collection, enhancing the visual appeal of the app's interface.

#### **Additional Features and Functionalities:**

- Jetpack Navigation: Utilizes the Jetpack Navigation component to manage smooth transitions between screens.
- Implicit Intent: Implements implicit intents for viewing trailers on external apps and sharing movie details on social media platforms.
- TMDB API Integration: Securely fetches and displays movie data from TMDB, including listings, search results, and detailed movie information.
- ViewModel and Lifecycle Management: Ensures robust data handling across configuration changes and app lifecycle events with ViewModel architecture.
- Data Storage: Employs SharedPreferences for user settings (like theme preference) and Room persistence library for storing favorite movies.
- Dark Mode Toggle: Enhances user experience by allowing theme changes.
- In-App Reminder System: Notifies users about movie release dates.
- Home Screen Widget: Provides quick access to the favorites/watchlist from the home screen.

#### **Mockups:**

Detailed UI mockups will be created using Figma, illustrating the design and functionality of the Home Screen, Search Screen, Movie Detail Screen, and Favorites Screen, as well as the interactions for the additional features.

**Division of Labor:**

Member 1: Leads UI/UX design, implements dark mode.

Member 2: Manages TMDB API integration, adds social sharing.

Member 3: Sets up local database for favorites, manages user settings.

Member 4: Develops notification system, creates home screen widget.

**Conclusion:**

The Cinemagic app proposal outlines a focused plan to develop a user-friendly, informative, and engaging platform for movie lovers. By combining a well-designed UI with dynamic content from TMDB and personalization features, the app will offer a unique movie exploration experience.