MovieApp

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What is MovieApp?

A mobile app built using Kotlin for Android.

Allows users to search for movies, view details, and manage favorites.

Developed using modern Android development practices.

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Key Features

Search movies by title.

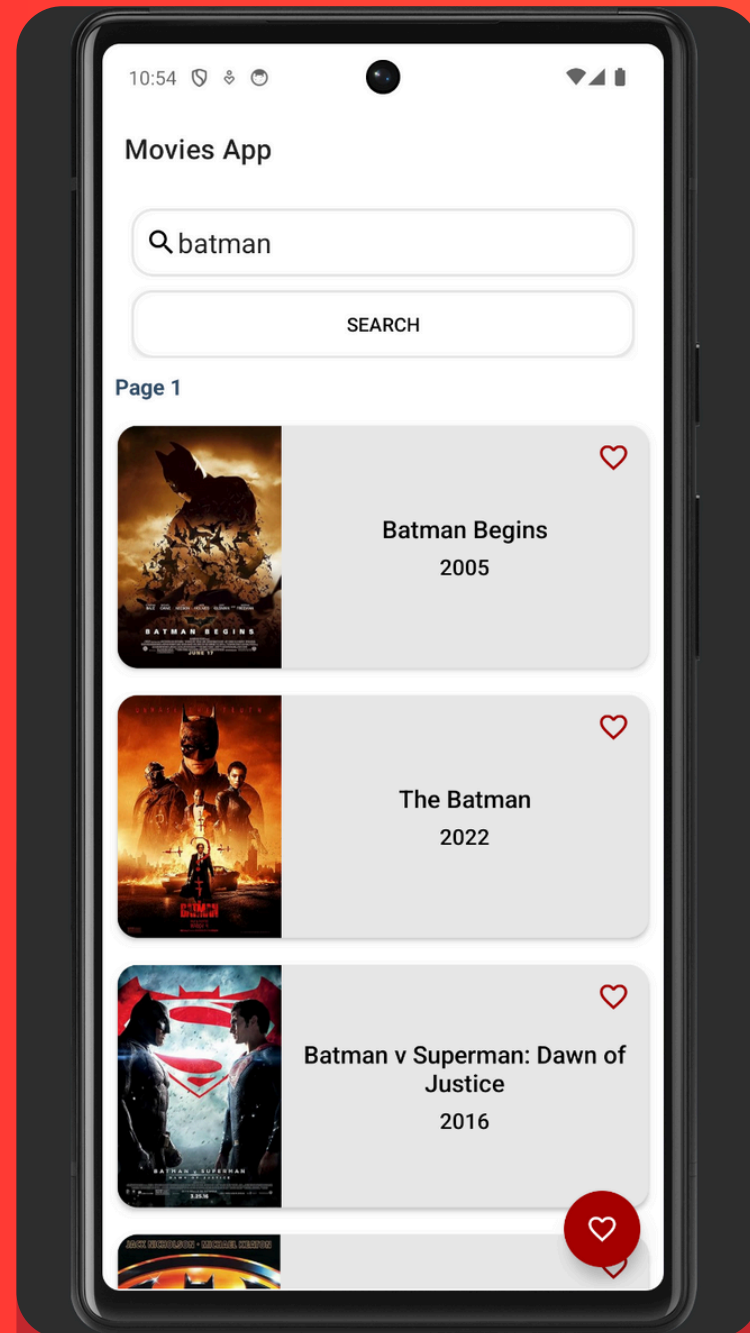View detailed information: Title, poster, release date, rating, and overview.

Favorite management: Add or remove movies from a favorites list.

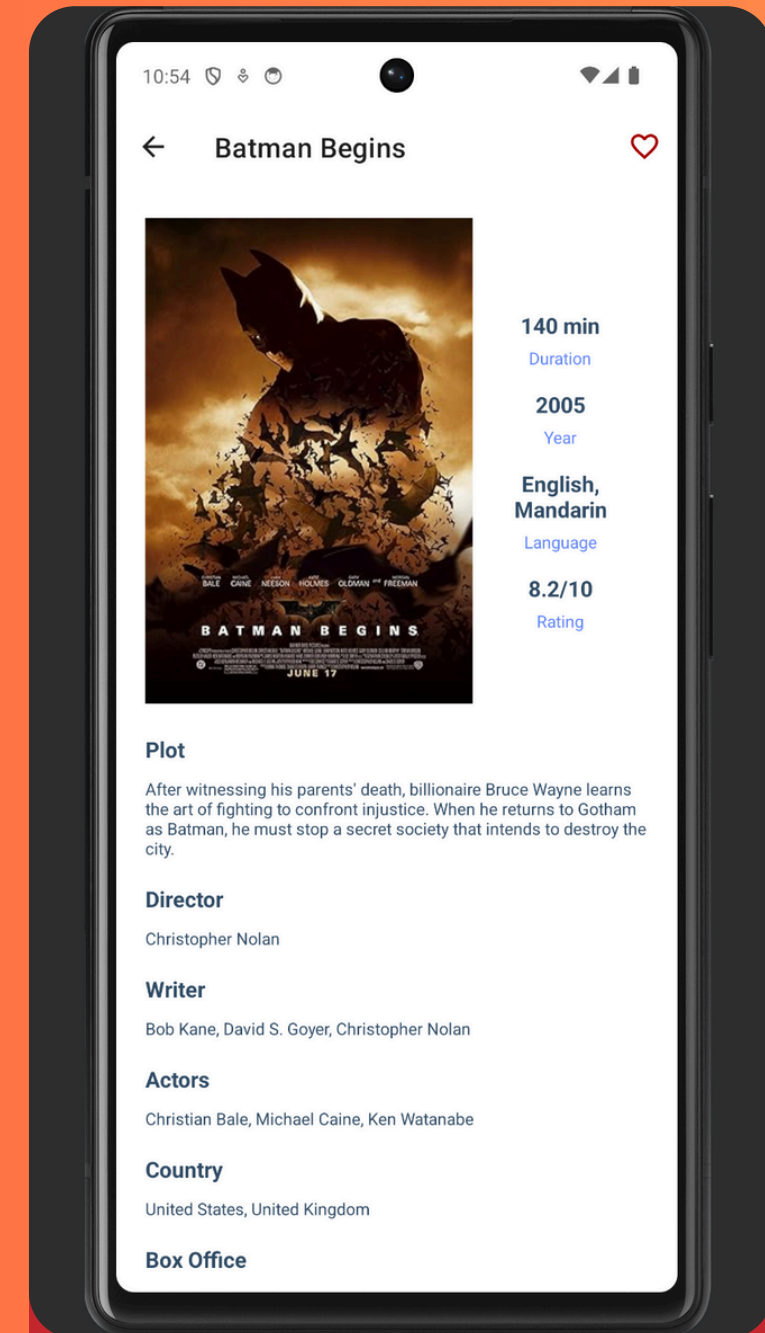Smooth scrolling through large lists using Paging 3.

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User Interface

Movie Search

Favorite Icon

Movie Details

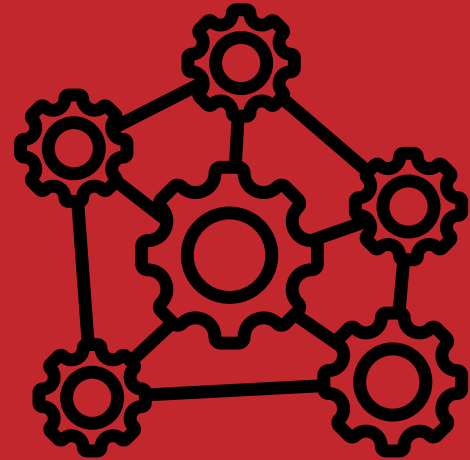**MovieApp**

Tech Stack

Language: **Kotlin**

Architecture: **MVVM**

JetPack Libraries:

- **Retrofit**: API communication
- **Room**: Local database
- **Hilt**: Dependency injection
- **Navigation Component**
- **Data Binding**
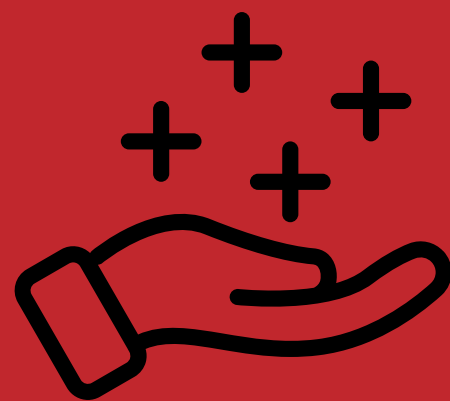- **Glide**: Image loading
- **Paging 3**: Efficient list handling

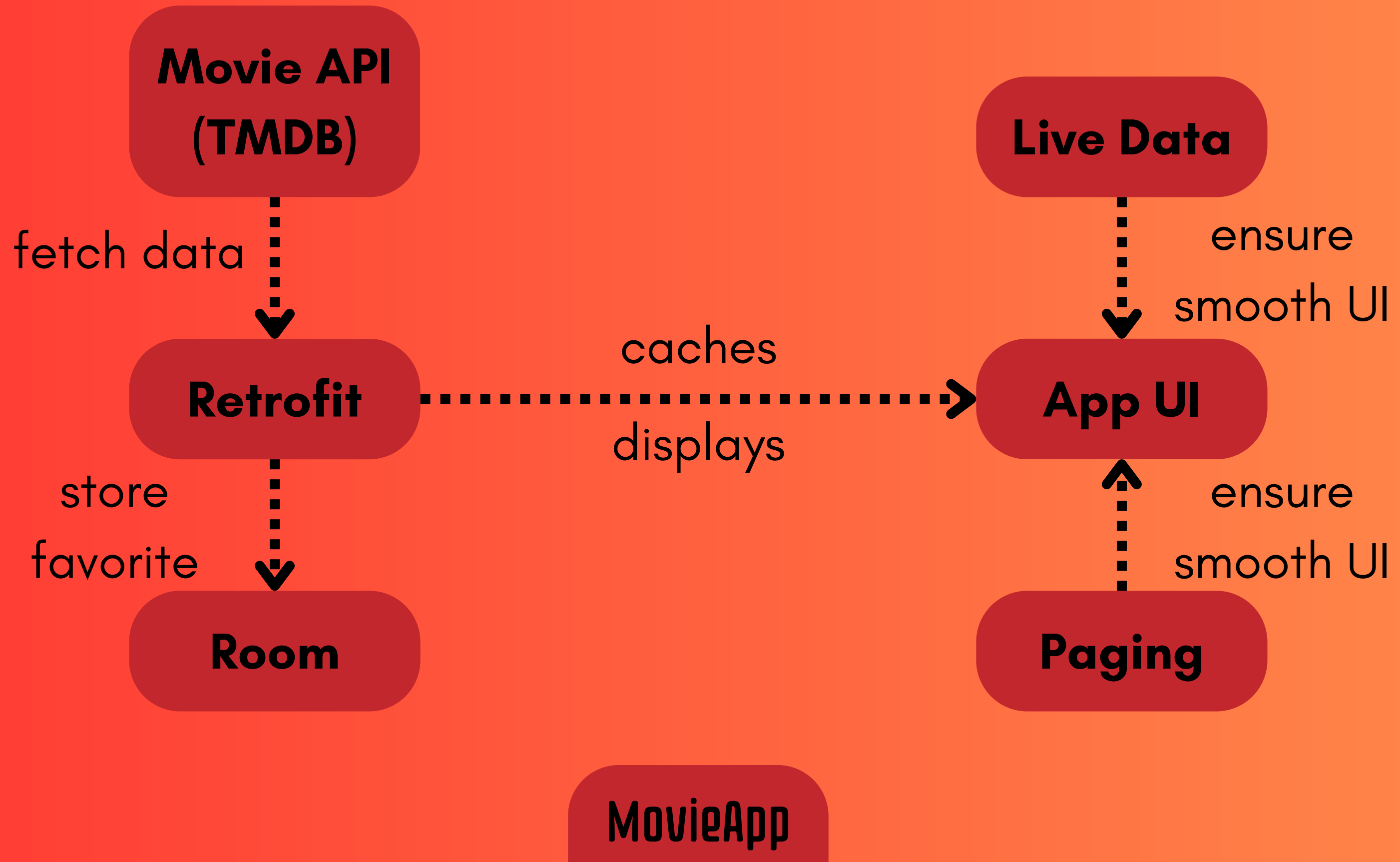**MovieApp**

Application Architecture

Model View Viewmodel Pattern includes:

- View: UI components (Activities/Fragments)
- ViewModel: Business logic and state management
- Model: Data sources (API + Room DB)

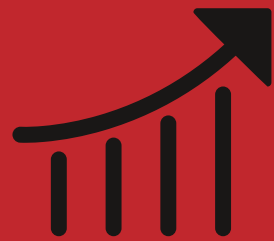Benefits: Separation of concerns, testability, maintainability

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Data Flow & APIs

Movie API (TMDB)

fetch data

Retrofit

store favorite

Room

caches displays

Live Data

ensure smooth UI

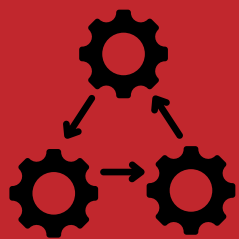**App UI**

ensure smooth UI

Paging

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Challenges and Solutions

Large datasets handling – **Paging 3**

Maintaining performance – **Glide, Room**

Dependency management – **Hilt**

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Potential Improvements

👤 Add User Authentication

📶 Offline mode with caching

🔻 Add genre filtering and sorting option

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Conclusion

Though we may not have released the full potential of the application, we managed to showcase the course knowledge in a very practical approach.

This application will fit perfectly in a bigger ecosystem as a module for media platform or streaming services.

The design of the application is supposed to be highly reusable and very practical, using modern technologies.

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Thank You For Attention!!!

Here are our IDs:

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