Candidate 435

PGR208 Indivudual assignment report

UI Components:

For this project i implemented Constraintlayout which allowed me to position and size my widgets in a flexible way and used it to combo Swiperefereshlayout which makes it possible for the view to wrap around another view while supporting swiping down to perform a refresh operation.

I used CardView to wrap my RecycleView around to be used as the container for each item within my RecycleView.

To increase perfomance i implemented a coroutine that simplify code that executes asynchronously, it helped with running long tasks that block the main thread and causes the app to freeze.

Framework

For database i used the library Room which provides an abstraction layer over SQLite which allows me to have more robust database access and cache the relevant pieces of data.

For webservices Retrofit2 and OkHttp for generating the URL specific to my REST API and parsing the JSON using GSON.

I used picasso as it simplifies the proccess of displaying images from external locations.

The pros and cons of my approach was a fast and reliable data caching that provides a smooth experience with the application, but the time used on adding all the components and learning them was complex and used a lot of time.

Patterns

Model

I used MVP as an architectural design pattern, where i use Model for the logic and application data to be stored that is played by the API. It helps not only with the storing of data but have components that generates, expose and fetch data. In general all the functionalities run in the background.

View

View is the interface UI which is responsible for routing users actions to the presenter.

Presenter

The presenter is like a middleman between the View and Model which deals with presenting logic in the application. Like updating the view or querying the Model.