Assignment 2 (15%)

And Reflection (5%)

Objectives:

- Implement Room DB functionalities
- Implement Json parser
- Implement Call back interface
- Implement Networking and multi-threading
- Implement Recycler View and Adapter

Due time: This assignment is due Next Monday 27 July 2020 at the end of the day, late penalty is one mark per late day up to three days, the assignment will disappear from BB on July 30, 2020.

Any two similar code/reflections will get 0 for both.

No presentations for this assignment, it replaced with reflection (5%)

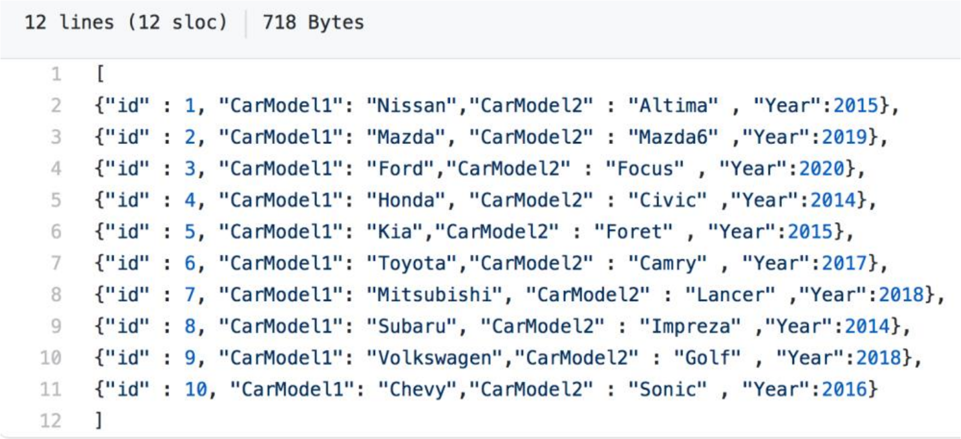
Description:

Assignment 2 project is about favorite cars, you must get a list of cars from a json file in GitHub, the app prompts the list of cars to the user as the image bellow shows.

Each car in json file has four properties: id, car model 1, car model 2 and Year.

You could download this data from GitHub API using this URL:

https://raw.githubusercontent.com/RaniaArbash/Assignment2_SkeletonProject/master/cars.json



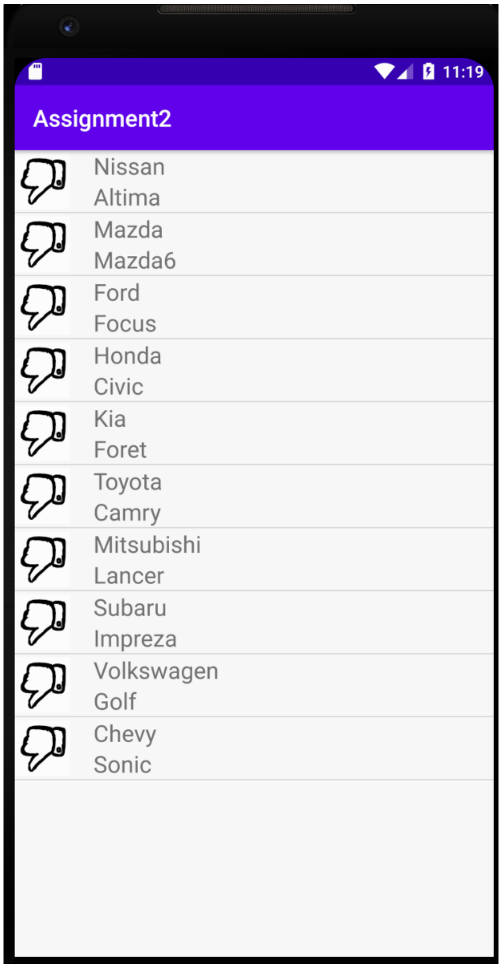
12 lines (12 sloc) | 718 Bytes

```
[
{"id" : 1, "CarModel1": "Nissan","CarModel2" : "Altima" , "Year":2015},
{"id" : 2, "CarModel1": "Mazda", "CarModel2" : "Mazda6" ,"Year":2019},
{"id" : 3, "CarModel1": "Ford","CarModel2" : "Focus" , "Year":2020},
{"id" : 4, "CarModel1": "Honda", "CarModel2" : "Civic" ,"Year":2014},
{"id" : 5, "CarModel1": "Kia","CarModel2" : "Foret" , "Year":2015},
{"id" : 6, "CarModel1": "Toyota","CarModel2" : "Camry" , "Year":2017},
{"id" : 7, "CarModel1": "Mitsubishi", "CarModel2" : "Lancer" ,"Year":2018},
{"id" : 8, "CarModel1": "Subaru", "CarModel2" : "Impreza" ,"Year":2014},
{"id" : 9, "CarModel1": "Volkswagen","CarModel2" : "Golf" , "Year":2018},
{"id" : 10, "CarModel1": "Chevy","CarModel2" : "Sonic" , "Year":2016}
]
```

When the user run the app for first time where no cars stored in DB, all cars will consider unliked.

Car Class in the project has those members: Id, car model 1, car model 2, year, IsFavorite

IsFavorite is Boolean member which is initially false because no cars inserted to DB so all cars have the unlike icon.



11:19

Assignment2

Nissan
Altima

Mazda
Mazda6

Ford
Focus

Honda
Civic

Kia
Foret

Toyota
Camry

Mitsubishi
Lancer

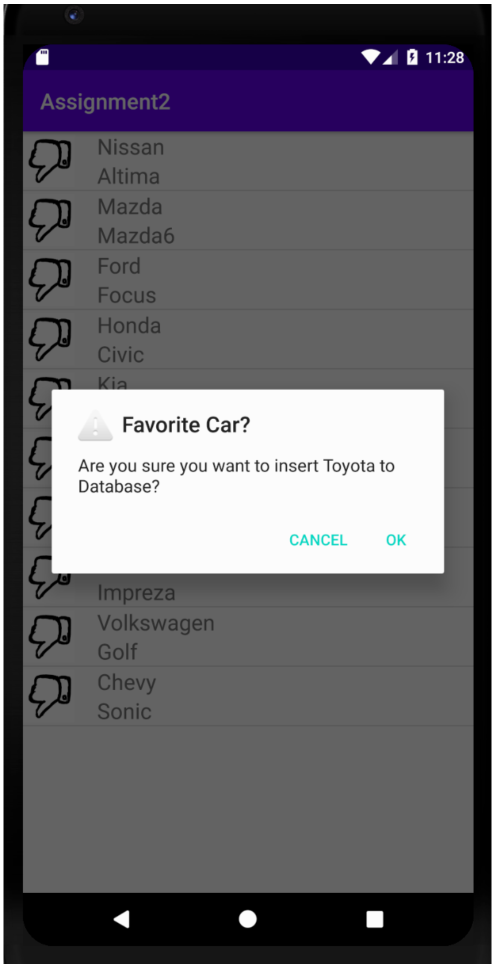
Subaru
Impreza

Volkswagen
Golf

Chevy
Sonic

Inserting Cars to DB:

When the user clicks on one car an alert dialog asks the user if he would like to add this car to his favorite cars.



Nissan
Altima

Mazda
Mazda6

Ford
Focus

Honda
Civic

Kia

Impreza

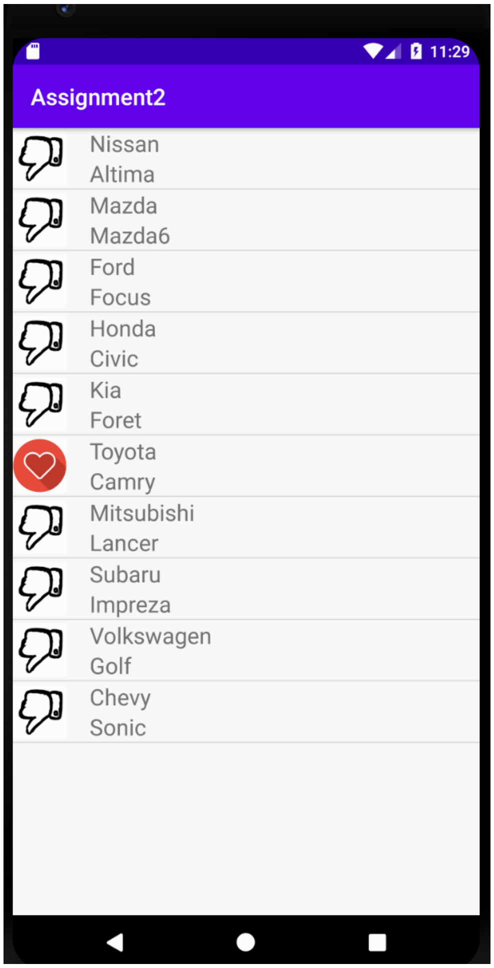
Volkswagen
Golf

Chevy
Sonic

Favorite Car?

Are you sure you want to insert Toyota to Database?

If the user agrees, the car object will be inserted to DB and the icon will changed to be like icon.



Assignment2

Nissan
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Sonic

After that when the user runs the app again, he should see the favorite cities with like icons which means the cars is in DB.

This is the process which you have to follow to implement this app:

1. Get Cars data from API, build the car adapter
2. Check them one by one to see if this car is stored in DB, if yes, the car icon should be ”like” icon otherwise “unlike” icon.
3. If the user clicks on a car item from the list, ask him/her to save the car in DB then change its icon.

Reflection (5%)

You must submit main folder (zip file) with a document (pdf, txt or docx) that has:

- Answer to those questions:
    - How did you implement this project: what are the main classes and their functionality?
    - How the data transferred in your app?
    - What did you learn from this project?
- Screenshots and link to online emulator which running your app, those could be replaced with a recorded video from your emulator or device, the video must run the app, save one car to database, stop the app then rerun it again.
- Make sure to upload each item separately.