Android Assignment 2

The goal of the assignment is to create a Shopping List application. During the development you can practice the following techniques in Android:

- Multiple Activities
- Lists (RecyclerView)
- Animations
- Persistence data storage (Room)

Assignment Details

The task is to implement a basic Shopping list application where users can see the items that they want to buy in a shop and they can mark which item has been bought.

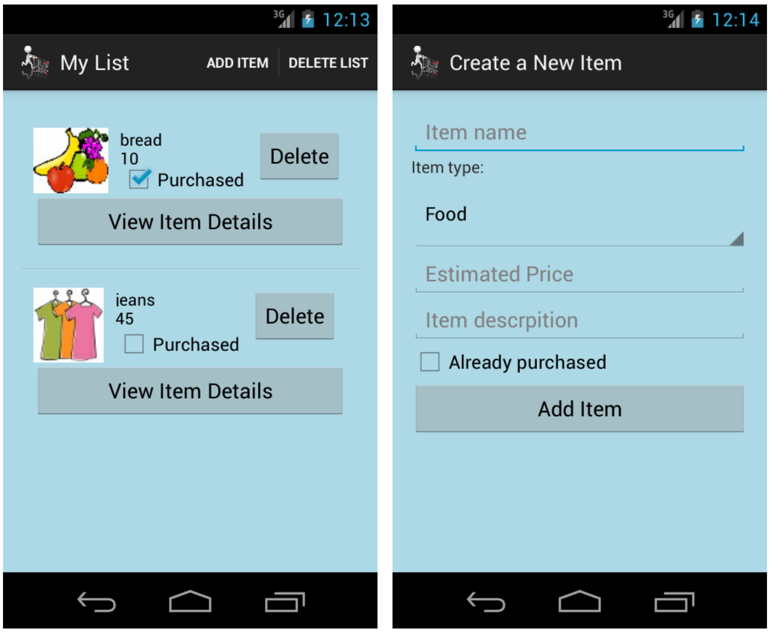
Requirements:

- The application should start with a *Splash Activity* that displays a custom logo and jumps to the *Shopping List* after 3 seconds.
- An Item should have at least the following attributes:
  - category:
    - food, electronic, book, etc. (use at least 3),
    - the icon of the item in the list depends on it's category,
  - name,
  - description,
  - estimated price,
  - status: true/false weather it has been bought yet or not.
- The *Shopping List* should display:
  - icon for the item (an *ImageView* based on the Category),
  - checkbox weather it has been bought or not (user can change it during shopping),
  - name of the item,
  - additional attributes can also be displayed of course!
- The *Shopping List* should have a "New Item" menu in the *Toolbar* that navigates to a *New Item Activity* where the user can pick up new items that appear on the *Shopping List Activity.*
- The *Shopping List* should support removing items in two ways: one-by one and all items at the same time ("Delete all" menu in the *Toolbar*).
- The *Shopping List Activity* should support editing Items.
- Include at least one *Animation* somewhere in the application.
- Use database/persistence data storage for storing the items, you can use Room:
  - https://developer.android.com/training/data-storage/room/index.html
- Custom requirement: extend the application with an extra function, with anything that you think is useful in a Shopping List application.
- Set the name and the icon of the application properly.

Related to the code, please follow the conventions bellow:

- Keep the methods shorts (max 6-10).
- Use only lowercase letters in Java package names.
- Group your classes into packages.
- Comments are not required.
- Extract all strings into strings.xml.

Sample skeleton layout for the application, but feel free to use any custom user interface / Material Design elements like *CoordinatorLayout/FloatingActionButton*, etc.:



Here is a link for several **nice UI libraries**, feel free to use them:
https://github.com/wasabeef/awesome-android-ui

Tips and Advises

- You can use *Timer/TimerTask* to jump from the *Splash Activity* to the *Login Activity*, or *postDelayed(…)* method of a *Handler* object:
    - https://stackoverflow.com/questions/5486789/how-do-i-make-a-splash-screen
- User RecyclerView for the list!
- Do not forget about using persistence data storage like Room with SQLite (https://developer.android.com/training/data-storage/room/index.html) for storing the items.
- It is highly recommended to use *OnClickListener* for the *CheckBoxes* in the *RecyclerView* instead of the *OnCheckChangedListener*!
    - It is because *OnCheckChanged* is always called when the check status is set by the list during initial rendering, while *OnClick* will be called only one time when you click on the checkbox.

Grading

The maximum is 10 points for a version which meets the requirements listed in the Assignment Details section. If your app crashes or misses out some features, you will get reduced points.
Late submissions will get a point reduction: 1 point after each full day past due date (meaning that late submissions within 24 hours past due date gets no reduction).
Apps with added features, nice UI or elegant implementation details may be awarded with extra points.

Submitting the Assignment

Compress the whole Android Studio project folder with all source files in a single zip. Upload it to the Moodle page of the course.