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WillowTree’s AndroidCodeReviewTestProject (NobelPrizeList)

This is a code review of WillowTree’s app, containing recipients of the Nobel Prize. Recipients were born in locations of what now is considered Poland. The list is sorted by category.

**Overall**

I think the app looks really good. I love the display, couldn’t think of a much better way to display this data.

* Vibrant colors and nice contrast
* Good use of alignment
* Subtle font style changes
* Font size changes to break up a record
* Good structure of the parent to children lists (very easy to read).

The only thing that confused me at first was the content of the data, I asked myself “This can’t be the only recipients of the Nobel Prize right? Where is Barack Obama?”. I think a header textview or in the action bar should read “Poland Nobel Prize Recipients”. Also, probably just a matter of opinion but, I would have liked the list to be sorted on year as opposed to category.

**Improvements**

## Data Object Change

I think this application would serve better if LaureateList was a Singleton. The current setup is holding the RequestQueue in a singleton inheriting Application. This current setup would be good for multiple API requests, but a Nobel Prize isn’t given away every day, and to constantly refresh the data is a bit overkill. LaureateList as a Singleton makes sense for this application because the API only needs to be called once, furthermore the data will be stored for even offline view if the user is in a dead spot. In the case that there would need to be a refresh (say if the next Nobel Prize winner was released), then a SwipeRefreshLayout encapsulating the RecyleView would be an optimal solution, which could then add the additional records to the Singleton.

## NobelPrizeListActivity.java

1. APK changes
   1. There is no onPause() or onStop() handler to hold the instance of LaureateList
      1. i.e. The RequestQueue is called every time the user leaves the application.
2. Structural Changes
   1. The UI elements could be set in a private method outside of onCreate()
      1. *Suggested*: private void setUIElements();
   2. The refreshButton handler can be set in a private method
      1. *Suggested*: private void setRefreshHandler();
   3. The following methods could be placed into a class NetworkState in network package
      1. public boolean isOnline(){}
      2. public boolean connectionIsOn(Context context) {}
      3. private boolean isAirplaneModeOn(Context context) {}
      4. private boolean isWifiModeOn(Context context){}
      5. private boolean isMobileDataModeOn(Context context){}
   4. A presenter class should be created to handle private void sendGsonRequest(){}, where the class would have a (New) NetworkState, NobelPrizeListActivity, ListAdapterController(Discussed below), ApiHandler, GSONGetRequest, and LaureateList instances.
      1. *Suggested*: NobelPrizeListPresenter.java which would be instantiated in NobelPrizeListActivity

## Laureate.java - Prize.java - LaureateList.java

1. POJO clean-up
   1. The setters should be removed in these classes since there is no write functionality.

## LaureateListAdapter.java

1. The UI data could be set in a private method outside of onBindViewHolder()
   1. Suggested private void setUIData(); and private void setIfDead();
2. A controller class should be created ListAdapterController which would control the 1:N has-a relationship between this class and PrizeListAdapter. It would also have an instance of the LaureateList, and have the public long getItemId(int position){} and getItemCount(){} methods implemented instead of this class. It would call a method in NobelPrizeListPresenter which would set the listview’s adapter as PrizeListAdapter.

## PrizeListAdapter.java

1. The UI elements could be set in a private method outside of getView()
   1. *Suggested*: private void setUIElements();
2. The UI data could be set in a private method outside of getView()
   1. *Suggested*: private void setUIData(); and private void setUIShares();

## res

1. willow\_ic\_launcher.png to be moved into xxhdpi folder
   1. Create and scale the image accordingly for the other 5 dpi variations