Homework 6: ViewPager, Master/Detail Flow, and Action Bar

Due Monday, 7/6 @11:59am

Submission Requirement: Same as the previous homework.

Data Requirement: In this homework, you should use the local movie data, instead of fetching the data from a server.

Look and Feel (10 points): The quality of your UI will be evaluated in this homework. If you reuse the RecyclerView that you built in the previous homework, and you should remove things that are not needed for this homework (e.g. the 3 buttons at the top can be removed, because they do look ugly); otherwise, it will affect the look of your app, and you will penalize for that.

- **Note:** The look of the UI in Tasks 2 and 3 will only be judged using Nexus 4, so you don't need to worry about supporting phones/tablets with a larger screen (in the real world, you have to do that). The look of the UI in Task 1 will be judged using Nexus 4 and Nexus 7.

Task 1 Master/Detail Flow Activity (20 points): Create an Activity, which initially loads the RecyclerView fragment that you build in the previous homework. When a row is clicked, your app should behave like the following:

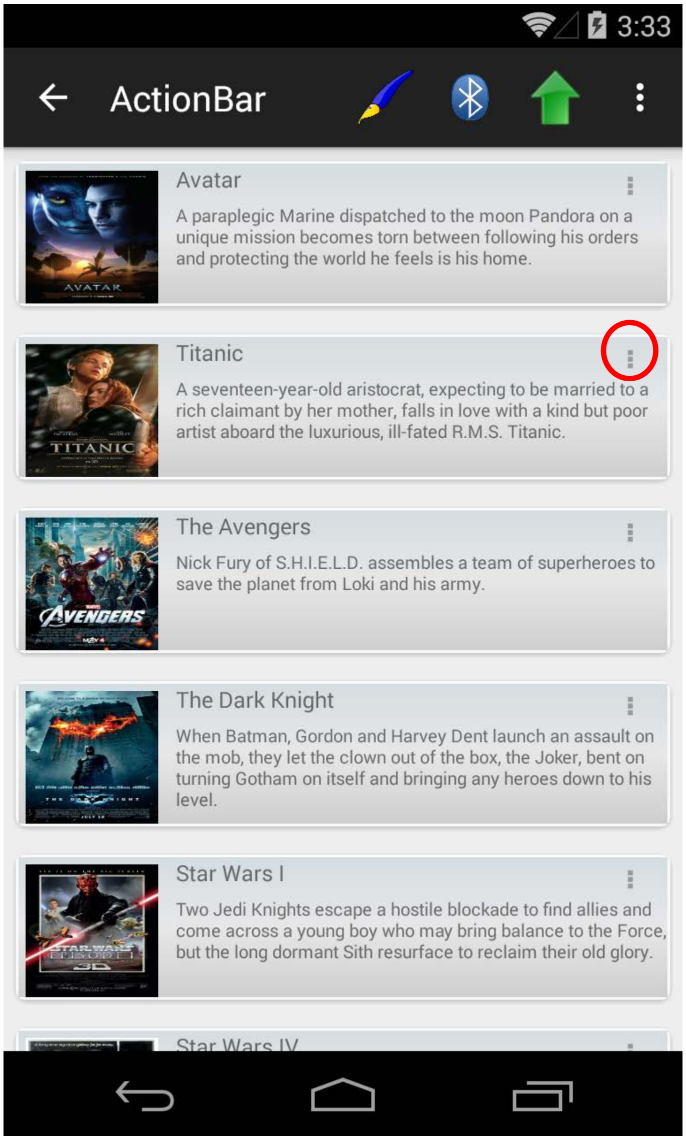
- On Nexus 4 (or phones with a small screen), the fragment showing the details of the movie will be loaded into the same activity, replacing the RecyclerView fragment. When the "back" button of the phone is clicked, the RecyclerView fragment will come back.
- On Nexus 7 (or tablets with a large screen), the fragment showing the details of the movie will be loaded into the same activity, but both the RecyclerView fragment and the detail fragment will be shown side by side.

Task 2 ViewPager (30 points): Please implement two Activities, both containing a ViewPager:

- (20 points) In your first Activity, you should use the tab navigation and support swipe view, i.e., you can go from one tab to another tab by swiping in the content area. You need to have at least two tabs, including the "Top Selling Movies" and "New Movie Release" tabs. Each tab displays a RecyclerView. Both tabs should use the same RecyclerView Fragment, but with different layout styles.
    - In the "Top Selling Movies" category, use LinearLayoutManager.
    - In the "New Movie Release" category, use GridLayoutManager.
- (10 points) When a user clicks an item (in any of the tabs), the detail view of the selected movie will be loaded into another Activity. This new Activity also contains a ViewPager. When we swipe left or right, we can go to the previous or next movie. This second Activity should have an Action bar, but it should be placed at the bottom. You should use ToolBar for this purpose.
- In these two ViewPagers, you should use two different animation styles.

Task 3 Action Bar (40 points): Please implement an Activity, which loads a RecyclerView Fragment:

- (10 points) The RecyclerView Fragment's action bar contains a SearchView. After the user types a string in the text field, RecyclerView should scroll to the first movie item that contains the string (case non-sensitive).
- (10 points) When a user clicks an item, the detail view (a fragment) of the selected movie will be loaded into the same Activity. There is a Share action provider on the action bar of the fragment. This action provider should allow users to send the information about the selected movie to other apps (e.g. email app).
- (10 points) When a user long clicks an item, the contextual action bar should appear, offering two choices (duplicate the item or delete the item). You need to implement the duplication and deletion.
- (10 points) Each item should have an ImageView (see Figure 1); when the ImageView is clicked, a popup menu will appear, offering two choices (duplicate the item or delete the item). You need to implement the duplication and deletion.



Avatar

A paraplegic Marine dispatched to the moon Pandora on a unique mission becomes torn between following his orders and protecting the world he feels is his home.

Titanic

A seventeen-year-old aristocrat, expecting to be married to a rich claimant by her mother, falls in love with a kind but poor artist aboard the luxurious, ill-fated R.M.S. Titanic.

The Avengers

Nick Fury of S.H.I.E.L.D. assembles a team of superheroes to save the planet from Loki and his army.

The Dark Knight

When Batman, Gordon and Harvey Dent launch an assault on the mob, they let the clown out of the box, the Joker, bent on turning Gotham on itself and bringing any heroes down to his level.

Star Wars I

Two Jedi Knights escape a hostile blockade to find allies and come across a young boy who may bring balance to the Force, but the long dormant Sith resurface to reclaim their old glory.

Star Wars IV

Figure 1