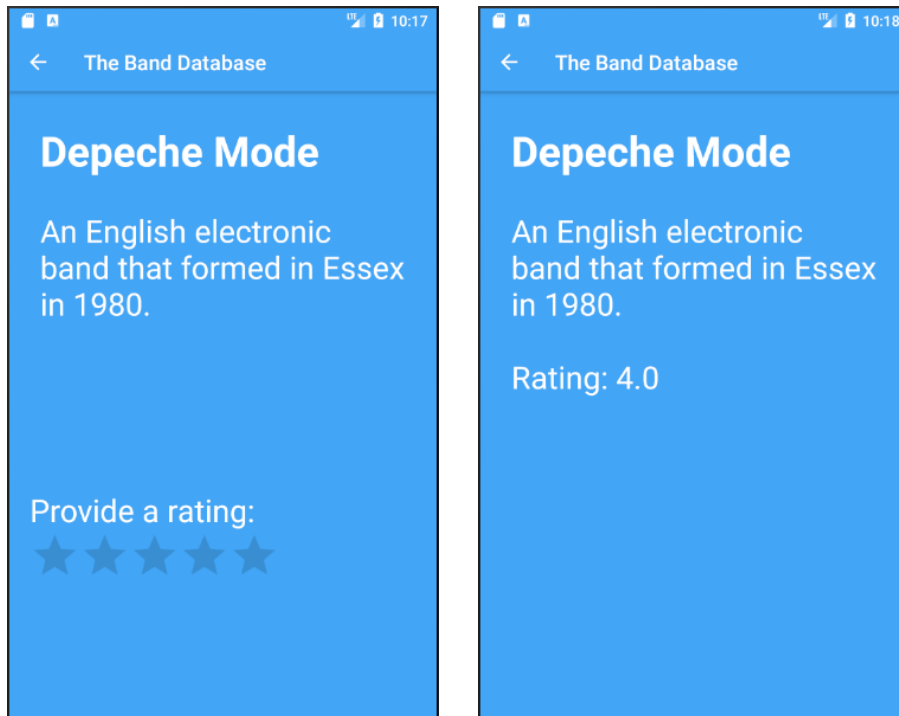**Rating Fragment**
Android App Development
10 points

Modify Version 4 of The Band Database app so the user can provide a rating to a band and so an Up button appears in the action bar when showing the band details.
https://github.com/fmccown/TheBandDatabase

Add an Up button:

1. Modify the application theme in styles.xml so it uses the NoActionBar theme:

   ```
   <style name="AppTheme" parent="Theme.AppCompat.Light.NoActionBar">
   ```

2. Add the support library Toolbar widget to activity_details.xml

   ```
   <android.support.v7.widget.Toolbar
       android:id="@+id/my_toolbar"
       android:layout_width="match_parent"
       android:layout_height="?attr/actionBarSize"
       android:background="?attr/colorPrimary"
       android:elevation="4dp"
       android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar"
       app:popupTheme="@style/ThemeOverlay.AppCompat.Light"/>
   ```

3. Set the action bar for DetailsActivity to the Toolbar defined in the previous step and enable the up button:

```
    protected void onCreate(Bundle savedInstanceState) {
        ...
        Toolbar myToolbar = (Toolbar) findViewById(R.id.my_toolbar);
        setSupportActionBar(myToolbar);
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        ...
```

4. Modify the android manifest to indicate the ListActivity is the parent of DetailsActivity:

```
<application
    ...
    <activity android:name=".ListActivity">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />
            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
    <activity android:name=".DetailsActivity"
        android:parentActivityName="com.zybooks.thebanddatabase.ListActivity">

        <!-- Parent activity meta-data to support 4.0 and lower -->
        <meta-data
            android:name="android.support.PARENT_ACTIVITY"
            android:value="com.zybooks.thebanddatabase.ListActivity" />
    </activity>
</application>
```

5. You may also want to add a Toolbar to the ListActivity since the AppTheme strips away the default action bar from ListActivity.

Add a rating fragment:

1. Add a rating property to the Band class with getter and setter methods. Initialize the rating to -1 in the Band constructors.

2. Create a fragment to the project called RatingFragment along with a layout fragment_rating.xml.

3. Modify fragment_rating.xml to display a TextView and RatingBar with 5 stars.

4. Modify RatingFragment.java so the fragment exposes an OnRatingSelectedListener interface with an onRatingSelected() callback that has a rating parameter. When the user selects a rating, the onRatingSelected() callback should be called on the observer, passing the selected rating. Also add onAttach() and onDetach() callbacks to register and de-register the observer.

5. Modify activity_detail.xml so uses a LinearLayout with two FrameLayout children. The top FrameLayout should display the details fragment and use a layout_weight=0.6 and layout_height=0dp so the layout occupies 60% of the screen. The bottom layout should display the rating fragment and use a layout_weight=0.4 and layout_height=0dp so the layout occupies 40% of the screen.

6. Add a TextView to fragment_details.xml to display the band rating.

7. Modify DetailsFragment.java so it displays the band's rating in the related TextView. If the rating is below zero, don't display anything in the TextView. Also add a public method called `displayRating()` that displays the band's rating in the TextView. This method will be used when the DetailsActivity gets notified that the user chose a rating.

8. Modify DetailsActivity's onCreate() to find the selected band's rating. If the rating is less than 0, instantiate the RatingFragment and add it to the Fragment Manager to appear in the DetailsFragment's lower FrameLayout. Otherwise set the lower FrameLayout's visibility to `View.GONE` so the FrameLayout is not visible.

9. Also modify DetailsActivity.java so it implements the `OnRatingSelecterListener` defined in RatingFragment. In the `onRatingSelected()` callback, set the band's rating to the selected rating and call the `displayRating()` method on the DetailsFragment that is currently loaded so the rating displays on the screen. Also remove the RatingFragment from the Fragment Manager.

Verify your app is working by selected a band. The rating fragment should display at the bottom of the screen. Select a rating, and the rating fragment should disappear and the rating appear in the details fragment. Press the Back button and select the same band. The screen should look just as it had previously, showing the band's rating. Also make sure the Up button takes you back to the list of bands.

Clean your project (Build → Clean Project from the menu), then zip up your project. Then rebuild the APK file (Build → Build APK from the menu) for your project.

Submit the zip file and app\build\outputs\apk\app-debug.apk to Easel. **Note:** The app-debug.apk file should be more than 1 MB. If it's smaller, then it's a partial APK meant for Instant Run. You must turn in the full APK file.