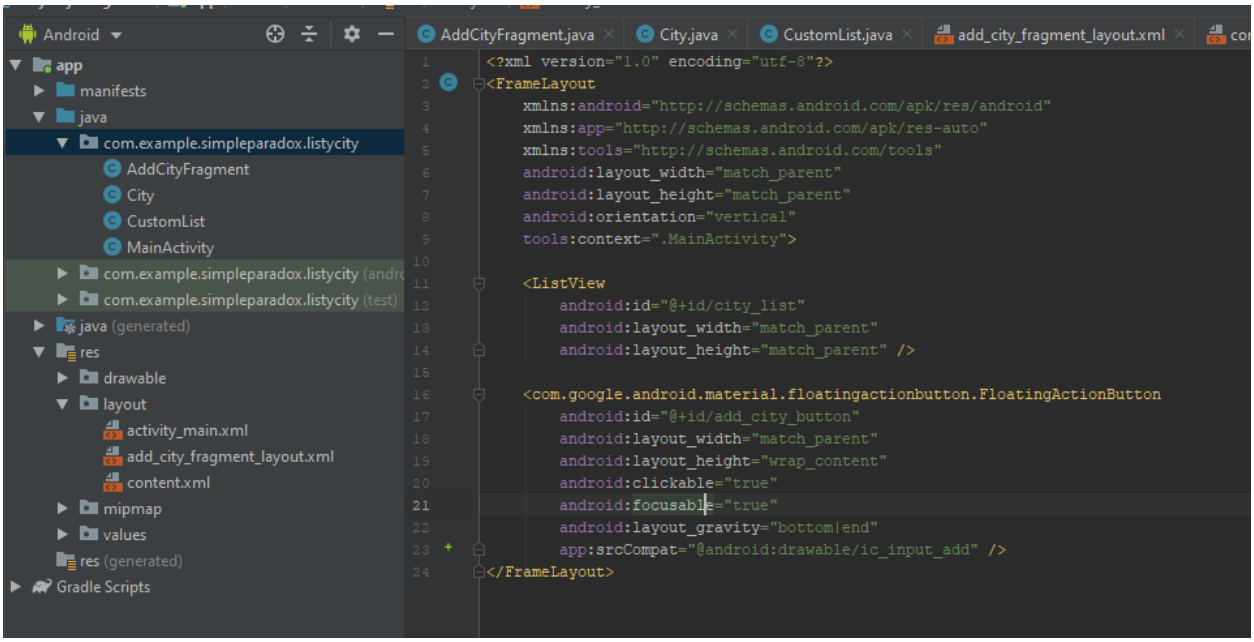
Lab 3 Instructions – Fragment

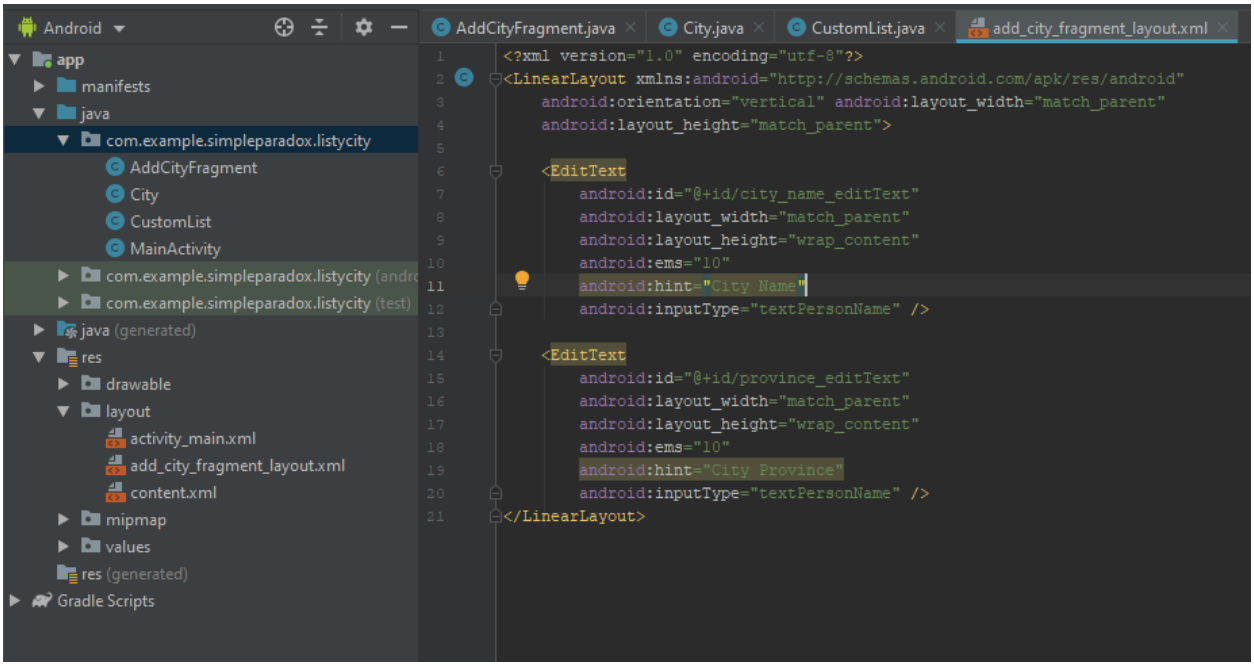
Take the ListyCity project and apply the changes described in “Lab 3 Instructions – CustomList” before proceeding with this demo.

Quick Summary: this demo shows one possbile method of adding a fragment to your MainActivity which will be used to receive user input for the addition of new cities.

1. Open the Project in Android Studio and then navigate to the **activity_main.xml** file. Edit the xml so that it has a **FloatingActionButton** as depicted in the screenshot below. The srcCompat attribute specifies the appearance of the button thumbnail. Change the **activity_main.xml** to use a **FrameLayout** instead of a **linearLayout**. Also note the additional **layout_gravity** attributes of the **FloatingActionButton** (to position it in the bottom right corner).

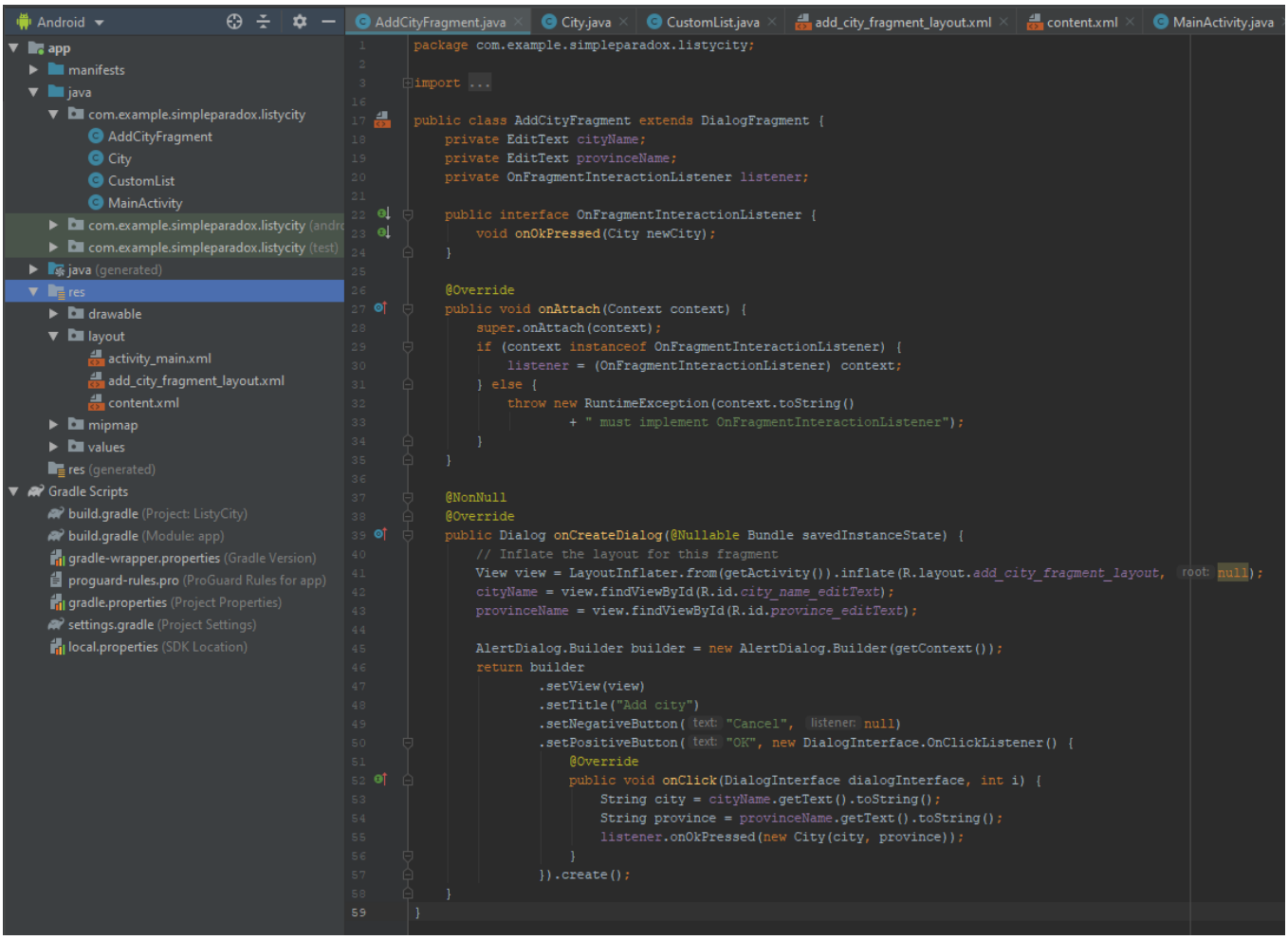


2. Create a layout file for the fragment – we'll call it **add_city_fragment_layout.xml** then add two **editText** fields (1 for the city name and 1 for the province).



3. Finally, we will create a new fragment object called **AddCityFragment** by extending the **DialogFragment** class. In the class, we will override the **onCreateDialog()** method where we will initialize our AddCityFragment's **editText** fields. Additionally, create the **OnFragmentInteractionListener** interface that will call **onOkPressed** (in **MainActivity**) and pass a new **City** Object as a parameter.
   In the **onCreateDialog()** method we will do the following: After initializing the View and the EditText fields we will create a new **AlertDialog** object using its **builder** method.
   Within the **builder** method we will set the view, set a Title and finally set the OK and Cancel buttons. Note that for the OK button, we will implement the **listener interface** allowing us to pass a new **City** object (created using the entered city name and province name) to the **onOkPressed()** method in **MainActivity**.

   Note the boilerplate code for the **onAttach()** method.



4. Now we will create an **onClickListener()** for the **FloatingActionButton** as well as override the **onOkPressed()** method in the **MainActivity** class. **Additionally, the MainActivity class now implements the AddCityFragment. OnFragmentInteractionListener interface.** The **addCityButton** listener will call the **FragmentManager** to display the **ADD_CITY** Fragment while the **onOkPressed()** method will take a **City** object as an argument and then add it to the **listview** by calling **cityAdapter.add(newCity)**