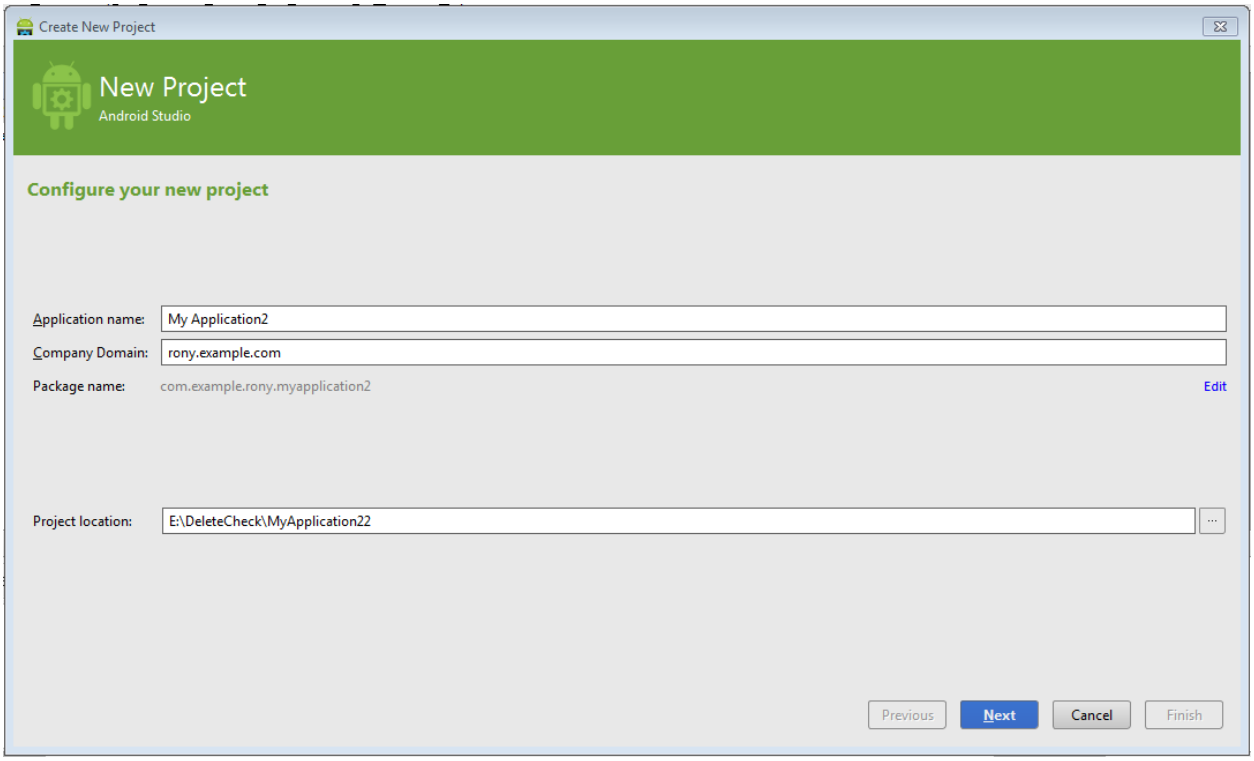
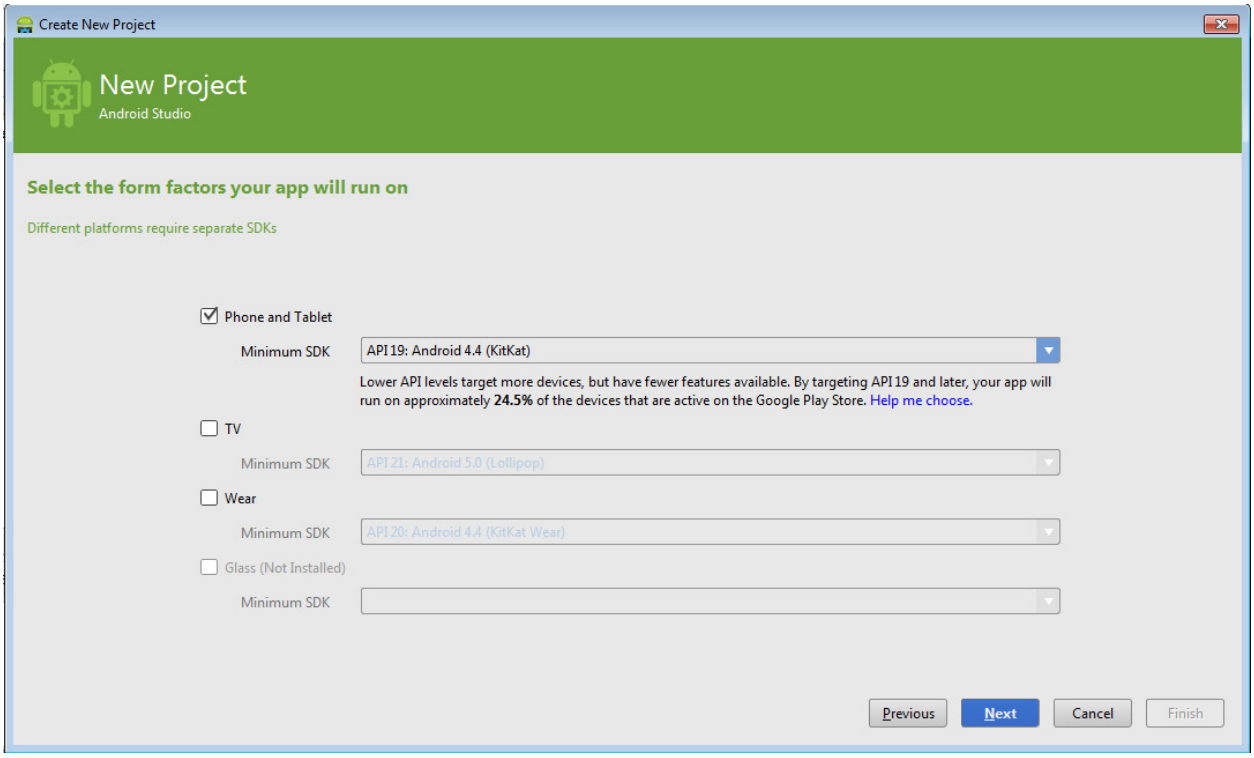
Eduonix Test Framework

1. Create a new project in android studio say MyApplication2

2. Go to File -> New Project -> Name your project

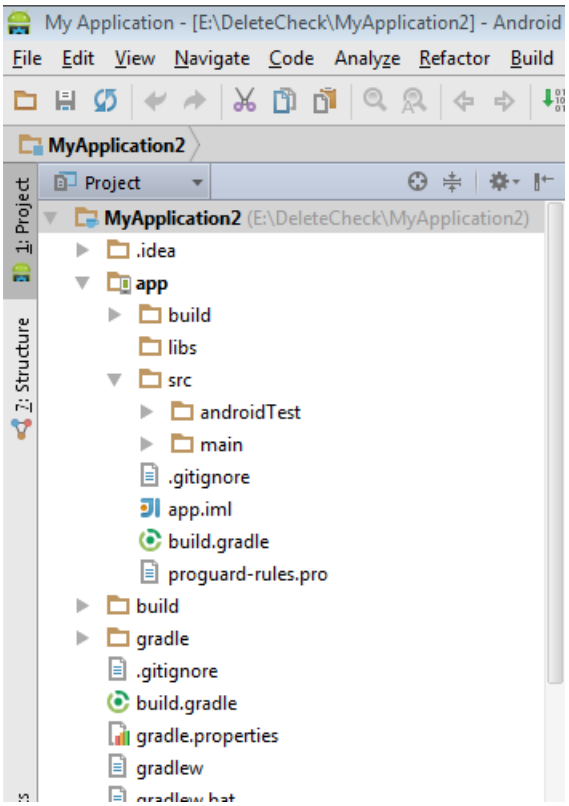


3. Set the Minimum required SDK and target Sdk as API 19(Kitkat).

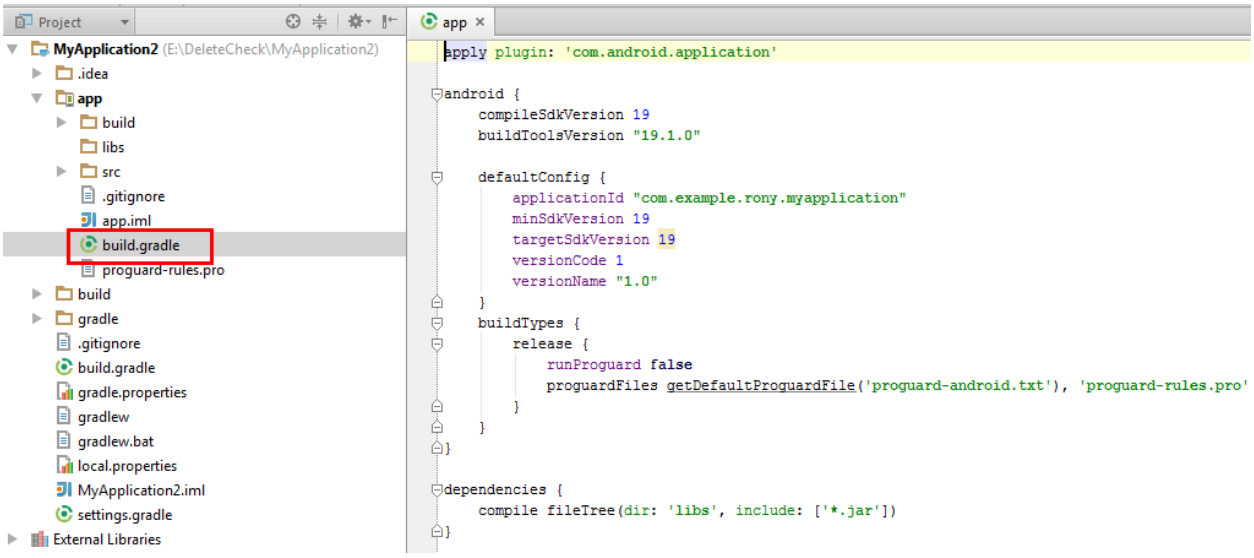


4. Select the blank activity and click on the finish button.

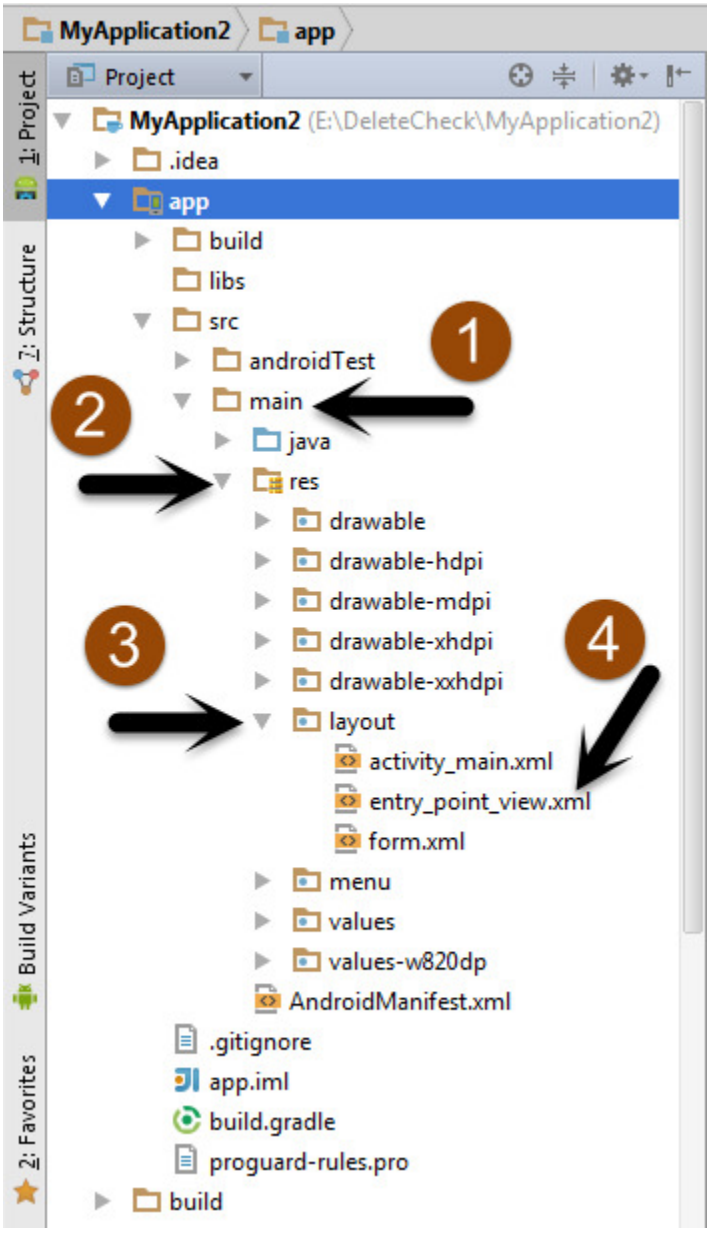
5. Thus your Project will be created.



6. Your build.gradle file :



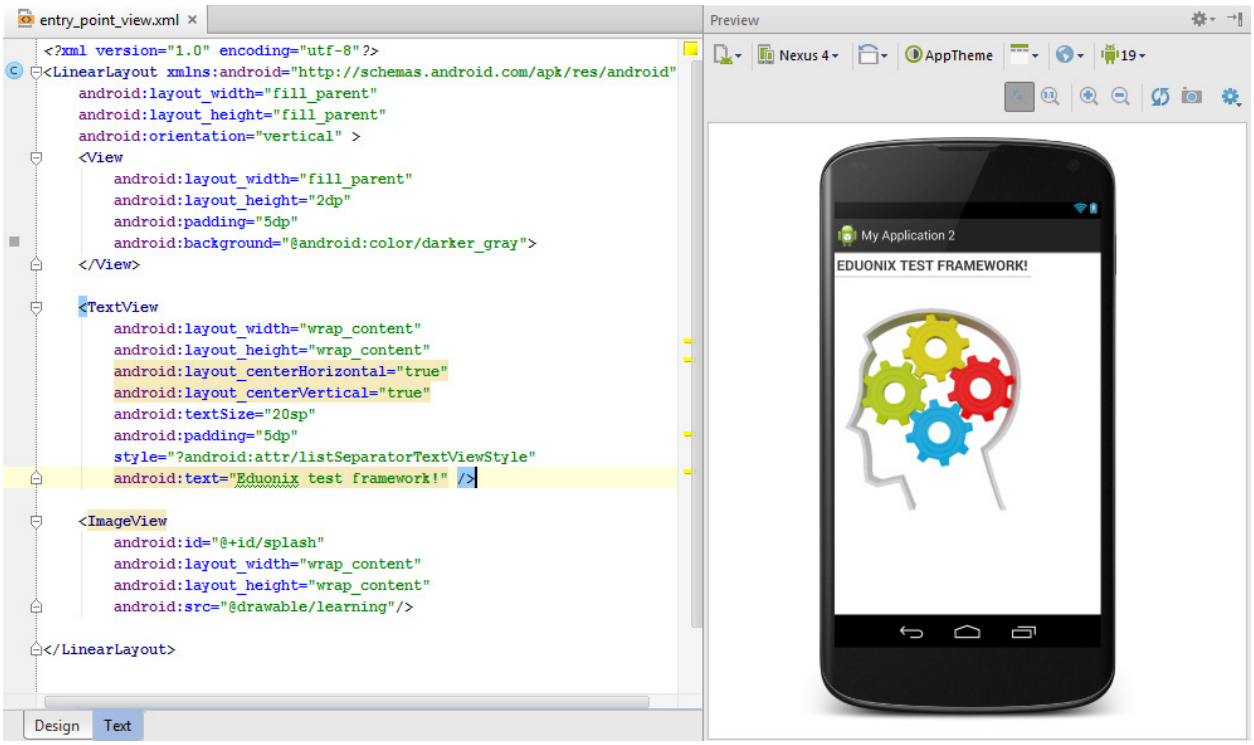
7. Now go to Your res folder and in Layout create an xml file say "**entry_point_view.xml**"



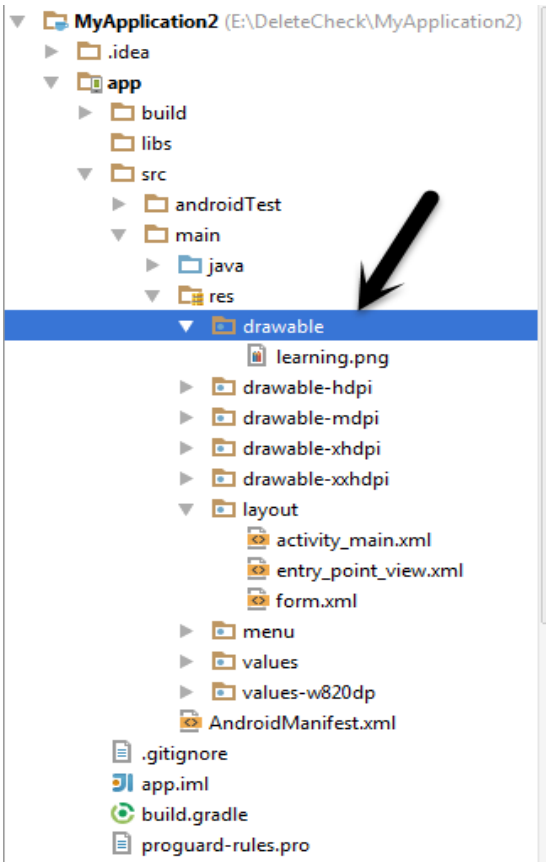
8. Write the given code in entry_point_view.xml :

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
   android:layout_width="fill_parent"
   android:layout_height="fill_parent"
   android:orientation="vertical" >
   <View
      android:layout_width="fill_parent"
      android:layout_height="2dp"
      android:padding="5dp"
      android:background="@android:color/darker_gray">
   </View>

   <TextView
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_centerHorizontal="true"
      android:layout_centerVertical="true"
      android:textSize="20sp"
      android:padding="5dp"
      style="?android:attr/listSeparatorTextViewStyle"
      android:text="Eduonix test framework!" />

   <ImageView
      android:id="@+id/splash"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:src="@drawable/learning"/>

</LinearLayout>
```

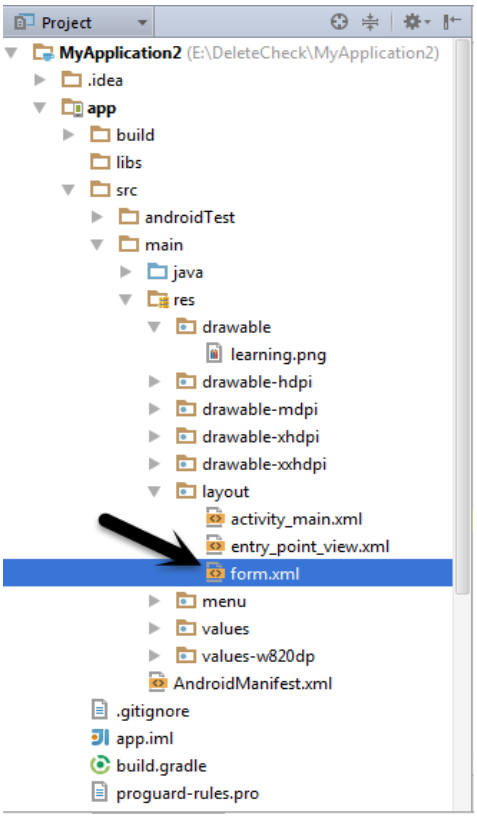
9. Here is the screenshot of the above code :



10.The image should be placed in the drawable folder as shown below :



11.Also create a new xml file say “form.xml” in your Layout Folder :

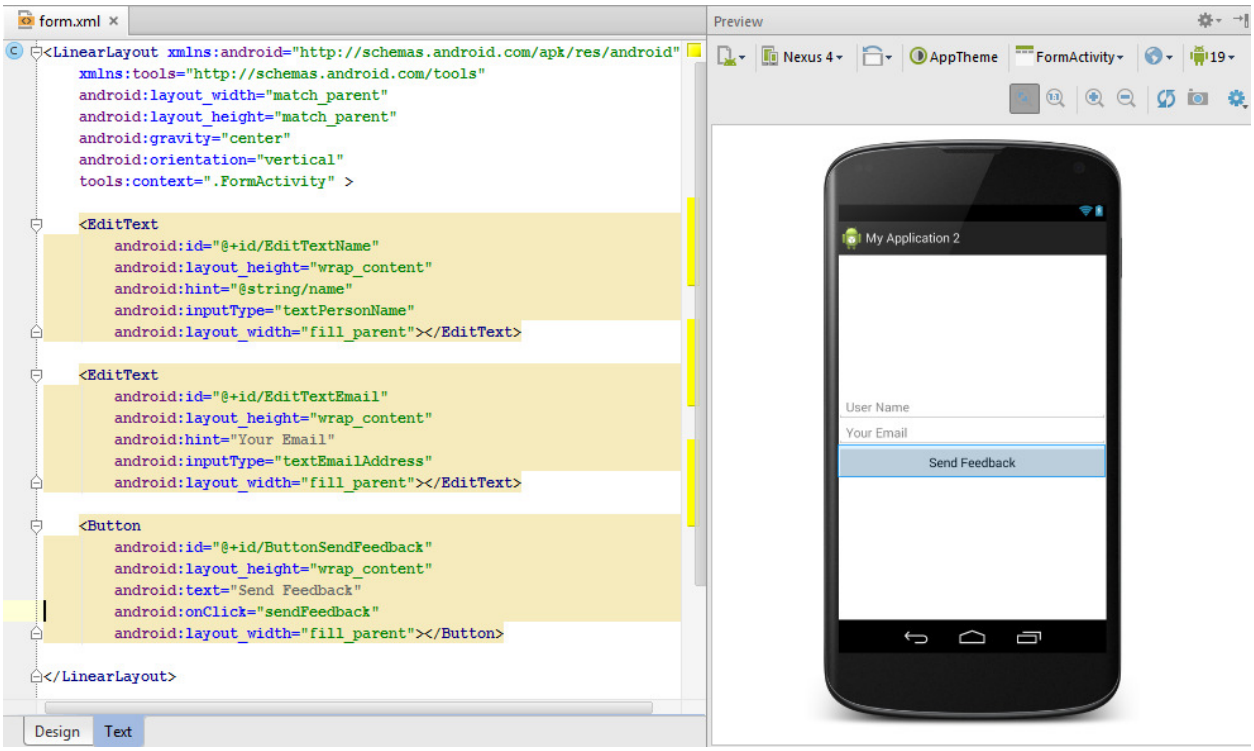


12.Insert the below code in your form.xml file :

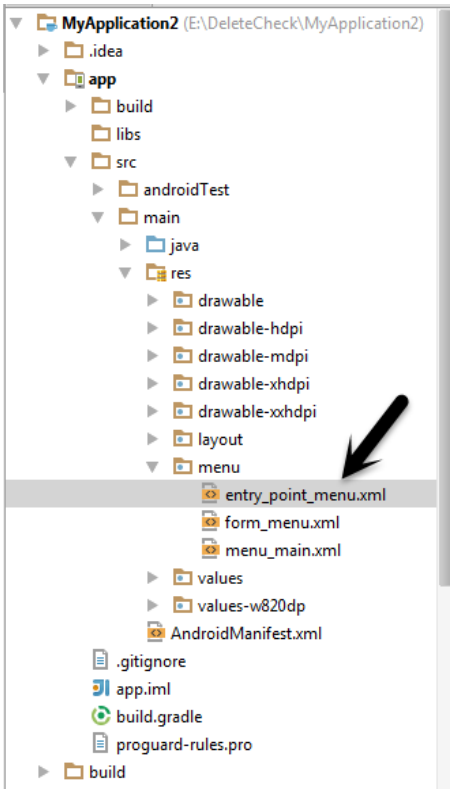
```
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:gravity="center"
   android:orientation="vertical"
   tools:context=".FormActivity" >

   <EditText
      android:id="@+id/EditTextName"
      android:layout_height="wrap_content"
      android:hint="@string/name"
      android:inputType="textPersonName"
      android:layout_width="fill_parent"></EditText>
```

```
<EditText
   android:id="@+id/EditTextEmail"
   android:layout_height="wrap_content"
   android:hint="@string/feedbackemail"
   android:inputType="textEmailAddress"
   android:layout_width="fill_parent"></EditText>

<Button
   android:id="@+id/ButtonSendFeedback"
   android:layout_height="wrap_content"
   android:text="@string/feedbackbutton"
   android:onClick="sendFeedback"
   android:layout_width="fill_parent"></Button>

</LinearLayout>
```

13.Screen shot of the code is shown below :

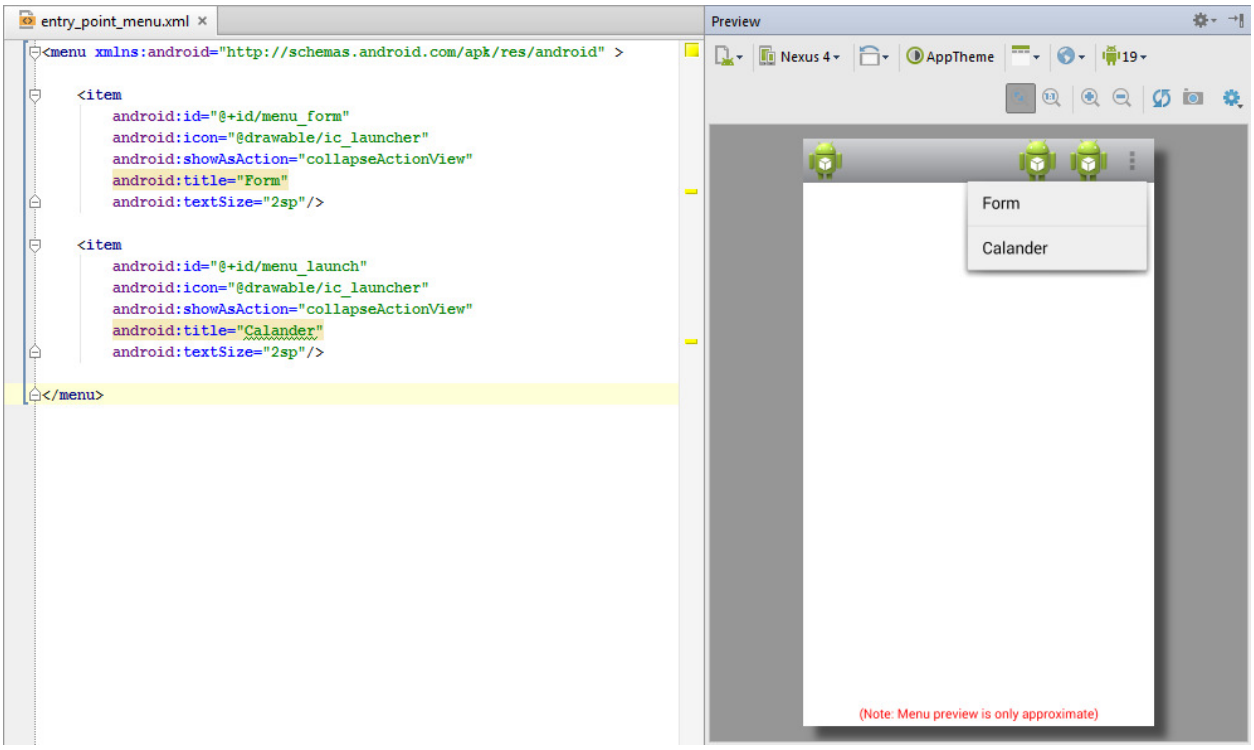


14. Now as we have to create menu bar in our application so go to **res->menu** and create a "**entry_point_menu.xml file**" and add the following code in it :



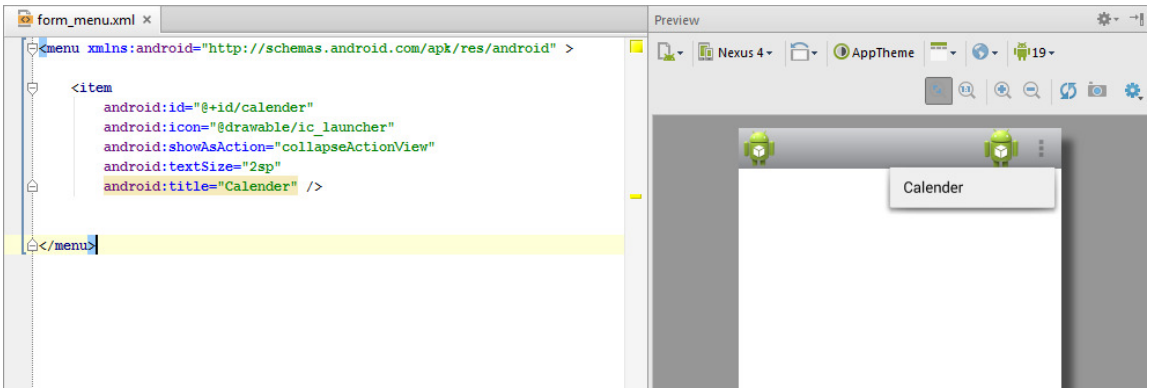
```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >

   <item
      android:id="@+id/menu_form"
      android:icon="@drawable/ic_launcher"
      android:showAsAction="collapseActionView"
      android:title="Form"
      android:textSize="2sp"/>

   <item
      android:id="@+id/menu_launch"
      android:icon="@drawable/ic_launcher"
      android:showAsAction="collapseActionView"
      android:title="Calander"
      android:textSize="2sp"/>

</menu>
```

15.Screen shot is given below :

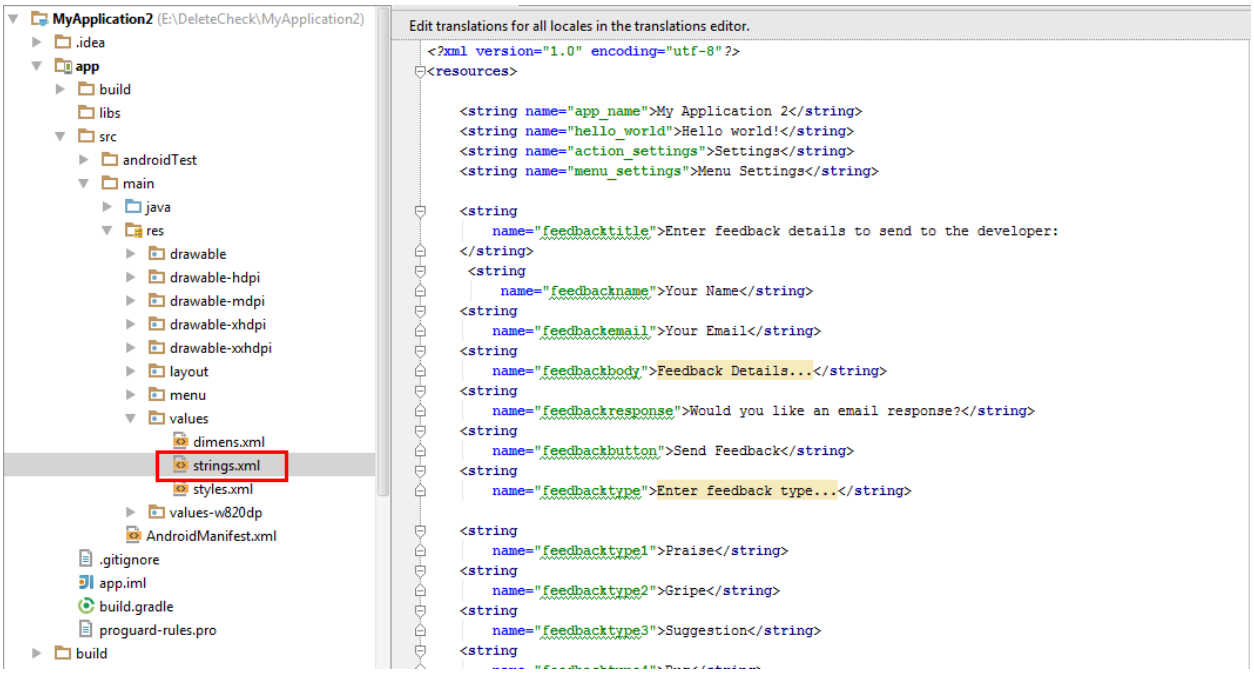


16. Similarly in the same folder create form_menu.xml file and insert the following code in it :

```
<menu xmlns:android="http://schemas.android.com/apk/res/android" >

   <item
      android:id="@+id/calender"
      android:icon="@drawable/ic_launcher"
      android:showAsAction="collapseActionView"
      android:textSize="2sp"
      android:title="Calender" />
</menu>
```



17.Now just go to the values folder and open your strings.xml file:



18.Replace the code of string.xml file with the given code :

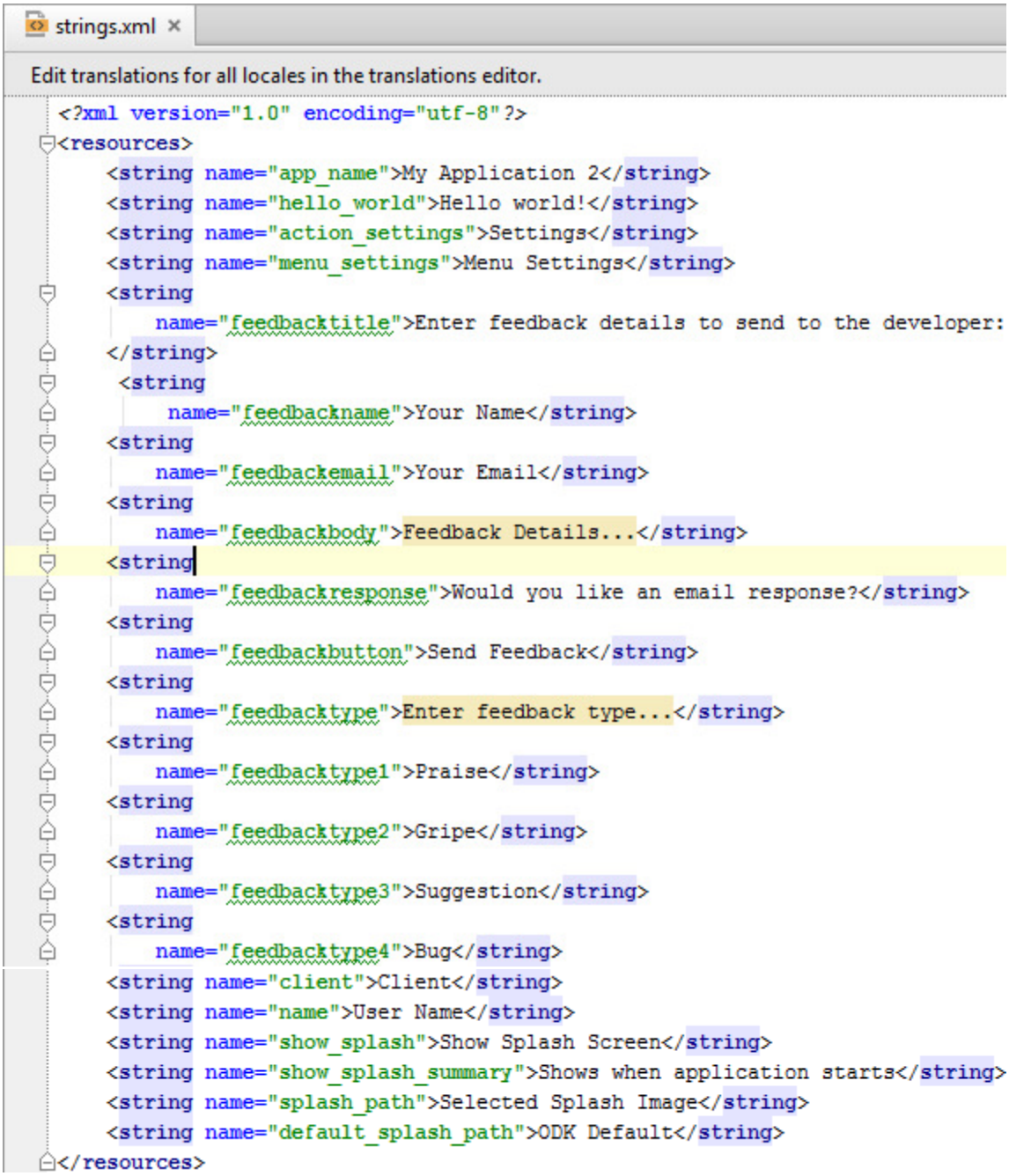
<?xml version="1.0" encoding="utf-8"?>
<resources>

<string name="app_name">My Application 2</string>
<string name="hello_world">Hello world!</string>

```
    <string name="action_settings">Settings</string>
    <string name="menu_settings">Menu Settings</string>

    <string
        name="feedbacktitle">Enter feedback details to send to the
developer:
    </string>
     <string
         name="feedbackname">Your Name</string>
    <string
        name="feedbackemail">Your Email</string>
    <string
        name="feedbackbody">Feedback Details...</string>
    <string
        name="feedbackresponse">Would you like an email
response?</string>
    <string
        name="feedbackbutton">Send Feedback</string>
    <string
        name="feedbacktype">Enter feedback type...</string>

    <string
        name="feedbacktype1">Praise</string>
    <string
        name="feedbacktype2">Gripe</string>
    <string
        name="feedbacktype3">Suggestion</string>
    <string
        name="feedbacktype4">Bug</string>

    <string name="client">Client</string>
    <string name="name">User Name</string>
    <string name="show_splash">Show Splash Screen</string>
```

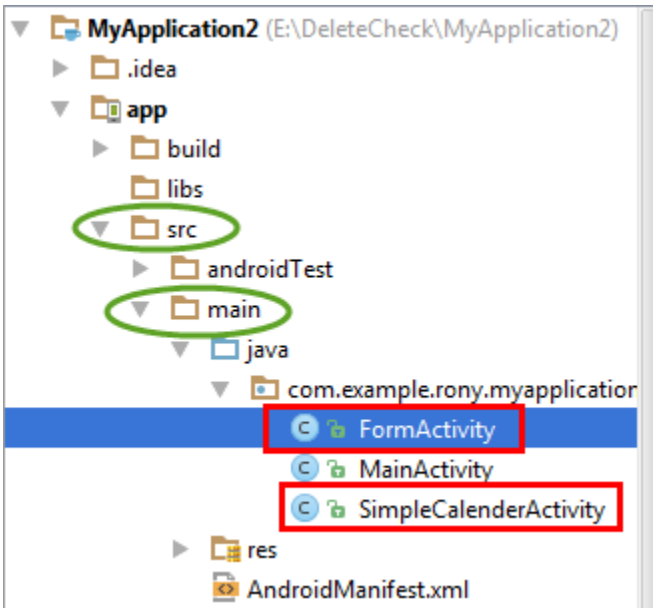
<string name="show_splash_summary">Shows when application starts</string>
<string name="splash_path">Selected Splash Image</string>
<string name="default_splash_path">ODK Default</string>

</resources>



19. Thus, now your layout is all set lets write the controller classes for the respective layout :

20. Now in your **src->main->java** folder create two more classes say "**FormActivity**" and "**SimpleCalenderActivity**"



21. Now write the given code in your MainActivity.java File :

```
import android.app.Activity;
import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.os.Bundle;
import android.util.DisplayMetrics;
import android.view.*;
```

```
import android.widget.ImageView;
import android.widget.LinearLayout;
import com.example.rony.myapplication.R;
public class MainActivity extends Activity {
   private int mImageMaxWidth;
   private int mImageMaxHeight;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
      // this splash screen should be a blank slate
      //  requestWindowFeature(Window.FEATURE_NO_TITLE);
      super.onCreate(savedInstanceState);
      getActionBar().setTitle("Navigation");
      DisplayMetrics displaymetrics = new DisplayMetrics();

getWindowManager().getDefaultDisplay().getMetrics(displaymetrics);
      mImageMaxHeight = displaymetrics.heightPixels;
      mImageMaxWidth = displaymetrics.widthPixels;
      setContentView(R.layout.entry_point_view);
      setLandingScreen();
   }
   @Override
   public boolean onCreateOptionsMenu(Menu menu) {
// Inflate the menu; this adds items to the action bar if it is present.
      getMenuInflater().inflate(R.menu.entry_point_menu, menu);
      return true;
```

```
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
       switch (item.getItemId()) {
          case R.id.menu_form:
             Intent iForm = new Intent(this, FormActivity.class);
             startActivity(iForm);
             break;
          case R.id.menu_launch:
             Intent i = new Intent(this, SimpleCalenderActivity.class);
             startActivity(i);
             break;
          default:
             break;
       }
       return true;
    }
    private void setLandingScreen() {
       BitmapFactory.Options o = new BitmapFactory.Options();
       o.inTargetDensity = DisplayMetrics.DENSITY_DEFAULT;
       Bitmap bmp = BitmapFactory.decodeResource(getResources(),
R.drawable.learning, o);
       int w = bmp.getWidth();
       int h = bmp.getHeight();
       // add items to the splash screen here. makes things less distracting.
```

```
        ImageView iv = (ImageView) findViewById(R.id.splash);
        LinearLayout.LayoutParams params = new
LinearLayout.LayoutParams(
                LinearLayout.LayoutParams.MATCH_PARENT,
                LinearLayout.LayoutParams.MATCH_PARENT);
        params.setMargins((mImageMaxWidth-w)/2,(mImageMaxHeight-
h)/2, 0, 0);
        iv.setLayoutParams(params);
        //iv.setVisibility(View.DRAWING_CACHE_QUALITY_LOW);
        //iv.setVisibility(View.FOCUS_DOWN);
    }
}
```

MainActivity.java

```
package com.example.rony.myapplication;

import android.app.Activity;
import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.os.Bundle;
import android.util.DisplayMetrics;
import android.view.*;
import android.widget.ImageView;
import android.widget.LinearLayout;
import com.example.rony.myapplication.R;
public class MainActivity extends Activity {

    private int mImageMaxWidth;
    private int mImageMaxHeight;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        // this splash screen should be a blank slate
        //  requestWindowFeature(Window.FEATURE_NO_TITLE);
        super.onCreate(savedInstanceState);

        getActionBar().setTitle("Navigation");
        DisplayMetrics displaymetrics = new DisplayMetrics();
        getWindowManager().getDefaultDisplay().getMetrics(displaymetrics);
        mImageMaxHeight = displaymetrics.heightPixels;
        mImageMaxWidth = displaymetrics.widthPixels;
        setContentView(R.layout.entry_point_view);
```

```
        setLandingScreen();
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
// Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.entry_point_menu, menu);
        return true;
    }


    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case R.id.menu_form:
                Intent iForm = new Intent(this, FormActivity.class);
                startActivity(iForm);
                break;
            case R.id.menu_launch:
                Intent i = new Intent(this, SimpleCalenderActivity.class);
                startActivity(i);
                break;
            default:
                break;
        }
        return true;
    }
```

```
    private void setLandingScreen() {

        BitmapFactory.Options o = new BitmapFactory.Options();
        o.inTargetDensity = DisplayMetrics.DENSITY_DEFAULT;
        Bitmap bmp = BitmapFactory.decodeResource(getResources(), R.drawable.learning, o);
        int w = bmp.getWidth();
        int h = bmp.getHeight();

        // add items to the splash screen here. makes things less distracting.
        ImageView iv = (ImageView) findViewById(R.id.splash);


        LinearLayout.LayoutParams params = new LinearLayout.LayoutParams(
                LinearLayout.LayoutParams.MATCH_PARENT,
                LinearLayout.LayoutParams.MATCH_PARENT);

        params.setMargins((mImageMaxWidth-w)/2,(mImageMaxHeight-h)/2, 0, 0);
        iv.setLayoutParams(params);


        //iv.setVisibility(View.DRAWING_CACHE_QUALITY_LOW);
        //iv.setVisibility(View.FOCUS_DOWN);



    }

}
```

22. Now add the following code in your FormActivity.java

```
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class FormActivity extends Activity {

   @Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.form);
      getActionBar().setHomeButtonEnabled(true);
   }
   @Override
   public boolean onCreateOptionsMenu(Menu menu) {
      // Inflate the menu; this adds items to the action bar if it is present.
      getMenuInflater().inflate(R.menu.form_menu, menu);
      return true;
   }
   @Override
   public boolean onOptionsItemSelected(MenuItem item) {

      // please note android.R.id.home:
      switch (item.getItemId()) {
         case android.R.id.home:
            Intent home = new Intent(this, MainActivity.class);
            startActivity(home);
            finish();
            break;
```

```
            case R.id.calender:
                Intent calender = new Intent(this, SimpleCalenderActivity.class);
                startActivity(calender);
                finish();
                break;

            default:
                break;
        }
        return true;
    }
    public void sendFeedback(View button) {
        final EditText nameField = (EditText)
findViewById(R.id.EditTextName);
        String name = nameField.getText().toString();

        final EditText emailField = (EditText)
findViewById(R.id.EditTextEmail);
        String email = emailField.getText().toString();

        Toast.makeText(getApplicationContext(),
                String.format("Sending username %s and pasword %s", name,
email), Toast.LENGTH_SHORT)
                .show();

    }

}
```

FormActivity.java

```
package com.example.rony.myapplication;

/**
 * Created by Rony on 11/10/2014.
 */
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class FormActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.form);
        getActionBar().setHomeButtonEnabled(true);
    }


    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.form_menu, menu);
        return true;
    }
```

```
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {

        // please note android.R.id.home:
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent home = new Intent(this, MainActivity.class);
                startActivity(home);
                finish();
                break;
            case R.id.calender:
                Intent calender = new Intent(this, SimpleCalenderActivity.class);
                startActivity(calender);
                finish();
                break;

            default:
                break;
        }
        return true;
    }


    public void sendFeedback(View button) {


        final EditText nameField = (EditText) findViewById(R.id.EditTextName);
        String name = nameField.getText().toString();

        final EditText emailField = (EditText) findViewById(R.id.EditTextEmail);
        String email = emailField.getText().toString();

        Toast.makeText(getApplicationContext(),
                String.format("Sending username %s and pasword %s", name, email), Toast.LENGTH_SHORT)
                .show();


    }

}
```

23. Similarly open the SimpleCalenderActivity.java and add the code given below :

```
import android.os.Bundle;
import android.annotation.SuppressLint;
import android.app.Activity;
import android.content.Intent;
import android.view.Menu;
```

```
import android.view.MenuItem;
import android.widget.CalendarView;
import android.widget.Toast;



public class SimpleCalenderActivity extends Activity {
   private int mYear;
   private int mMonth;
   private int mDay;

   @SuppressLint("NewApi")
   @Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);

      CalendarView calendar = new CalendarView(this);
      calendar.setOnDateChangeListener(mDateSetListener);
      setContentView(calendar);
      getActionBar().setHomeButtonEnabled(true);
   }

   // the callback received when the user "sets" the date in the dialog
   private CalendarView.OnDateChangeListener mDateSetListener =
         new CalendarView.OnDateChangeListener() {

            public void onSelectedDayChange(CalendarView view, int year,
                                    int monthOfYear, int dayOfMonth) {
               mYear = year;
               mMonth = monthOfYear;
               mDay = dayOfMonth;
                 String selectedDate = new StringBuilder().append(mMonth +
                 1).append("/").append(mDay).append("/")
                     .append(mYear).append(" ").toString();
               // cache the selected event for the activity
```

```
                Bundle b = new Bundle();
                b.putString("dateSelected", selectedDate);

                Toast.makeText(getApplicationContext(),
                String.format("Sending day %d and month %d and year %d",
mDay, mMonth+1, mYear), Toast.LENGTH_LONG)
                        .show();
            }
        };




   @Override
   public boolean onOptionsItemSelected(MenuItem item) {
      switch (item.getItemId()) {
         case android.R.id.home:
            Intent i = new Intent(this, MainActivity.class);
            startActivity(i);
            finish();
            break;
         default:
            break;
      }
      return true;
   }

}
```

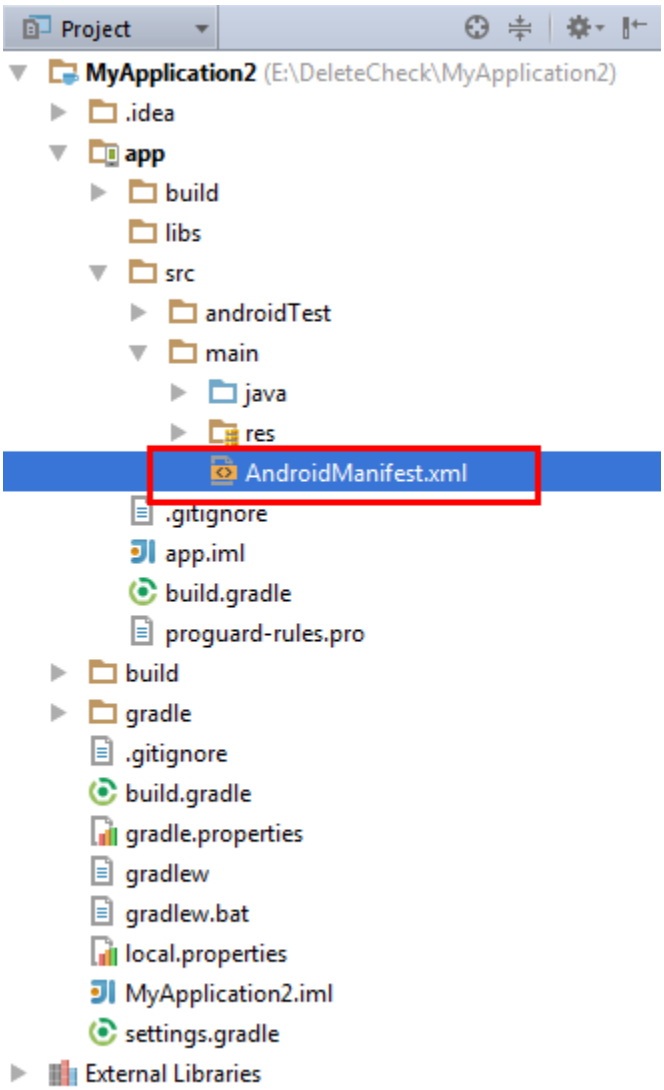
SimpleCalenderActivity.java

```
package com.example.rony.myapplication;

/**
 * Created by Rony on 11/10/2014.
 */
import android.os.Bundle;
import android.annotation.SuppressLint;
import android.app.Activity;
import android.content.Intent;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.CalendarView;
import android.widget.Toast;



public class SimpleCalenderActivity extends Activity {

    private int mYear;
    private int mMonth;
    private int mDay;

    @SuppressLint("NewApi")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        CalendarView calendar = new CalendarView(this);
        calendar.setOnDateChangeListener(mDateSetListener);
        setContentView(calendar);
        getActionBar().setHomeButtonEnabled(true);
    }
```

```
    // the callback received when the user "sets" the date in the dialog
    private CalendarView.OnDateChangeListener mDateSetListener =
            (view, year, monthOfYear, dayOfMonth) -> {
                    mYear = year;
                    mMonth = monthOfYear;
                    mDay = dayOfMonth;
                    String selectedDate = new StringBuilder().append(mMonth + 1).append("/").append(mDay).append("/")
                            .append(mYear).append(" ").toString();
                    // cache the selected event for the activity
                    Bundle b = new Bundle();
                    b.putString("dateSelected", selectedDate);

                    Toast.makeText(getApplicationContext(),
                            String.format("Sending day %d and month %d and year %d", mDay, mMonth+1, mYear), Toast.LENGTH_LONG)
                            .show();
            };
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case android.R.id.home:
                Intent i = new Intent(this, MainActivity.class);
                startActivity(i);
                finish();
                break;
            default:
                break;
        }
        return true;
    }
}
```

24. Do not forget to make an entry of your newly created classes into your **AndroidManifest.xml** file.

25. So, just go to res->AndroidManifest.xml as shown below :



26.Your manifest will have the following code:

```
<?xml version="1.0" encoding="utf-8"?><manifest
xmlns:android="http://schemas.android.com/apk/res/android"
package="com.example.rony.myapplication" >

   <application

      android:allowBackup="true"

      android:icon="@drawable/ic_launcher"

      android:label="@string/app_name"

      android:theme="@style/AppTheme" >

      <activity

         android:name="com.example.rony.myapplication.MainActivity"

         android:label="@string/app_name" >

         <intent-filter>

            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER"
/>

         </intent-filter>

      </activity>

      <activity


android:name="com.example.rony.myapplication.SimpleCalenderActivity
"

         android:label="@string/app_name" />

      <activity

         android:name="com.example.rony.myapplication.FormActivity"

         android:label="@string/app_name" />
```

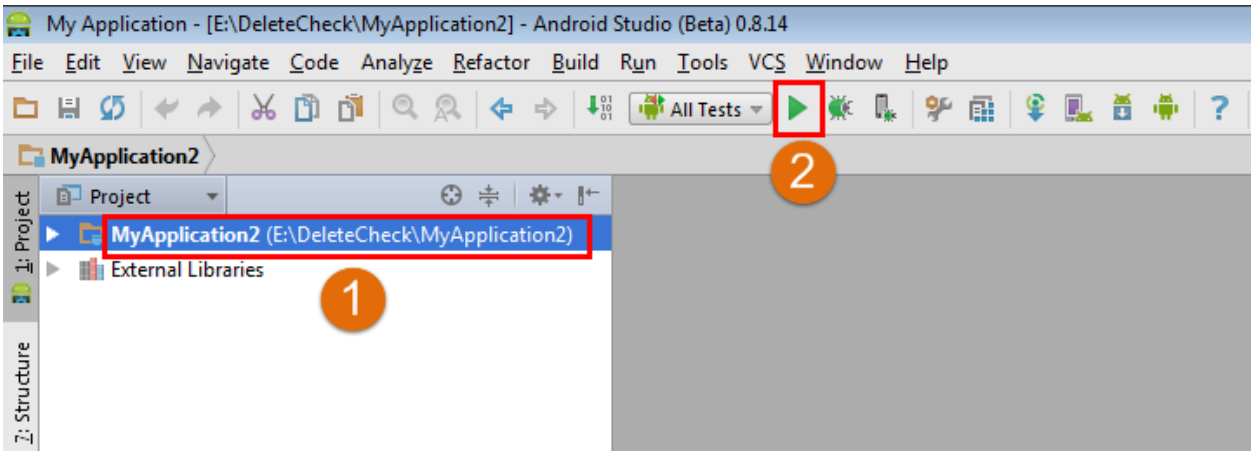
</application>

</manifest>

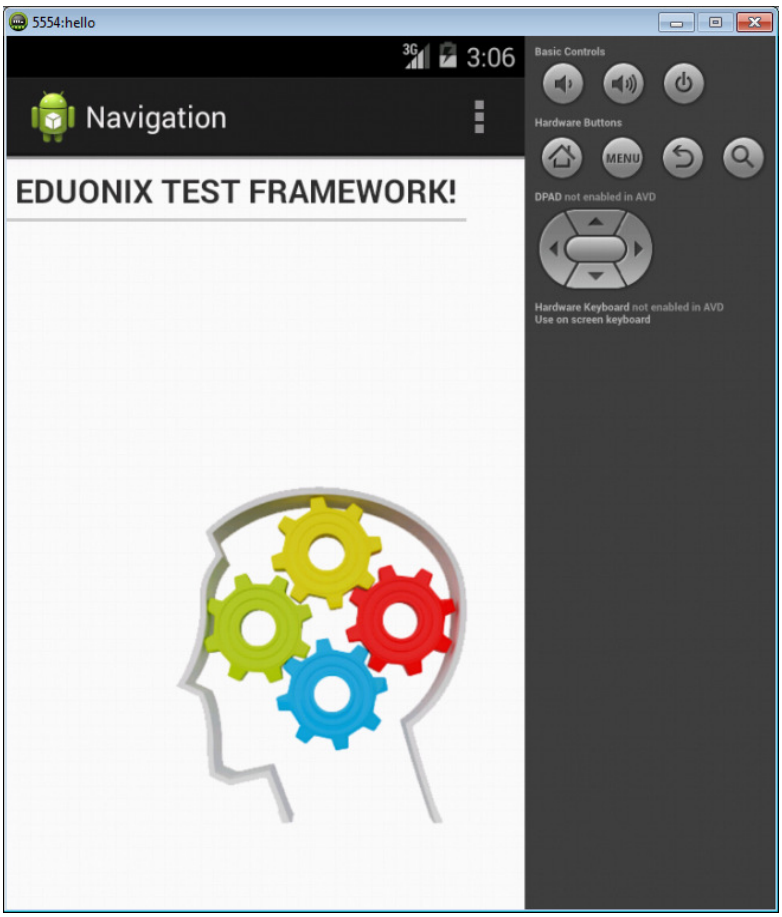
AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rony.myapplication" >

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="My Application 2"
        android:theme="@style/AppTheme" >
        <activity
            android:name="com.example.rony.myapplication.MainActivity"
            android:label="My Application 2" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity
            android:name="com.example.rony.myapplication.SimpleCalenderActivity"
            android:label="My Application 2" />
        <activity
            android:name="com.example.rony.myapplication.FormActivity"
            android:label="My Application 2" />

    </application>

</manifest>
```

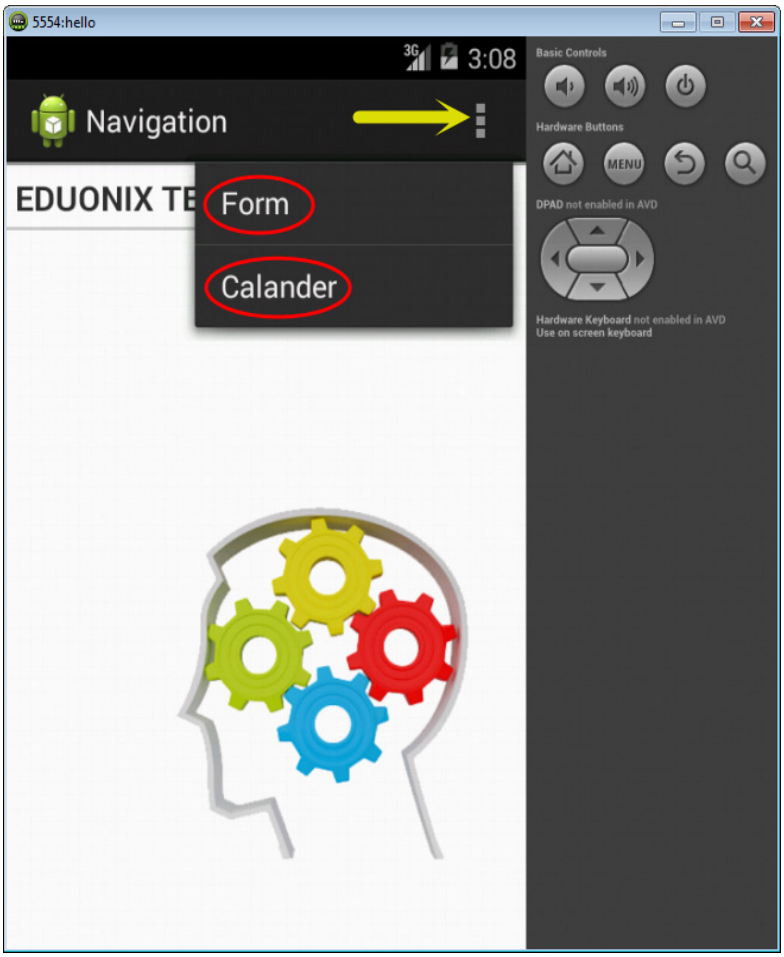
27. Your application is complete just select it and click on Run(AVD of API 19 necessary) :



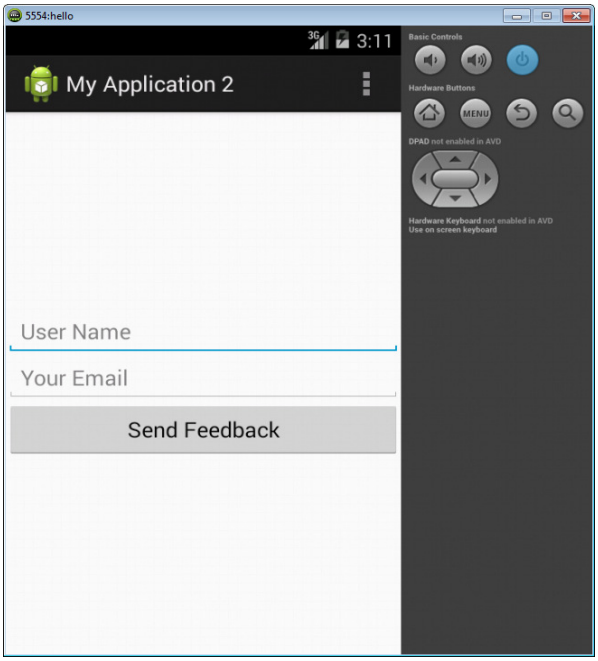
28.Thus, you will have following output :



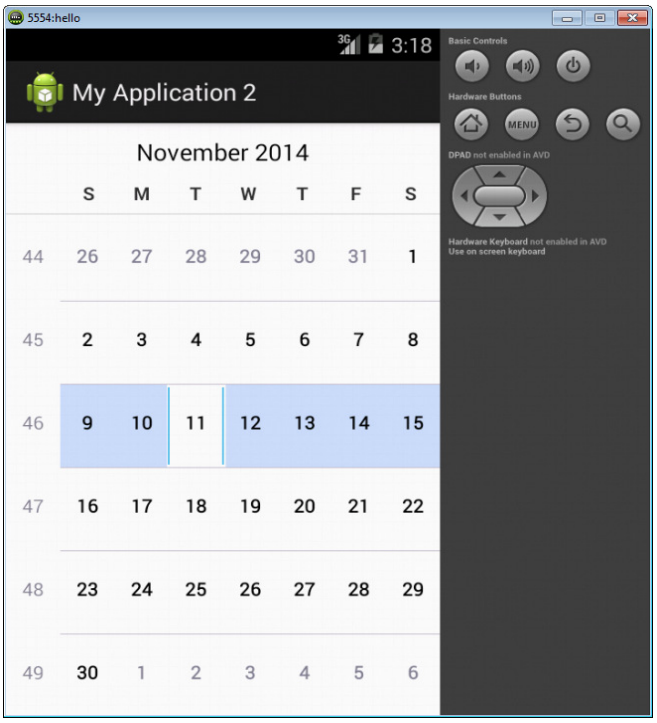
29.Select the respective menus and you will be navigated as per selection :



30.On Form Selection :



31.On Calender selection :


5554:hello
3:18
My Application 2
November 2014
S M T W T F S
44 26 27 28 29 30 31 1
45 2 3 4 5 6 7 8
46 9 10 11 12 13 14 15
47 16 17 18 19 20 21 22
48 23 24 25 26 27 28 29
49 30 1 2 3 4 5 6
Basic Controls
Hardware Buttons
MENU
DPAD not enabled in AVD
Hardware Keyboard not enabled in AVD
Use on screen keyboard