



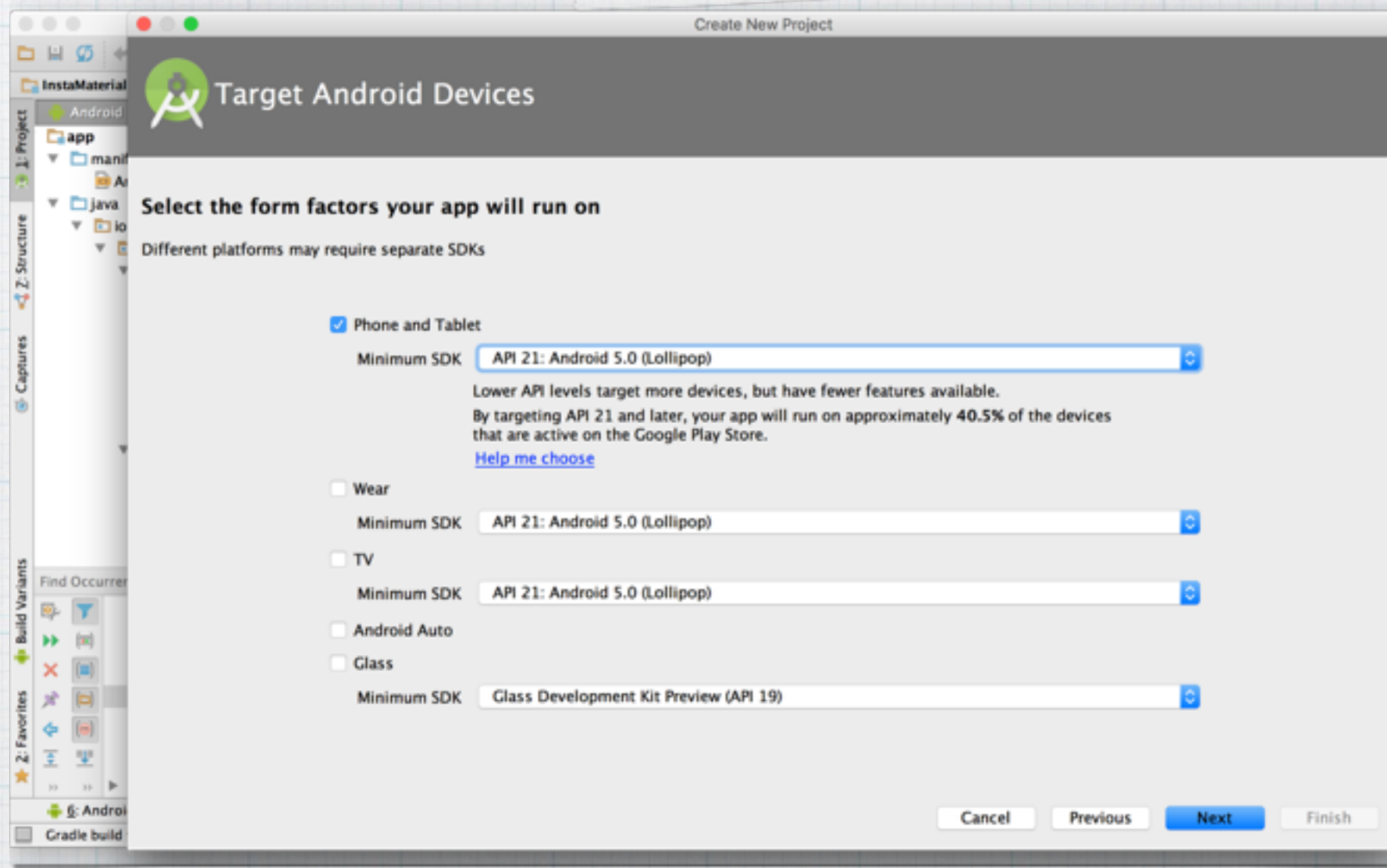
Where U at

만들어 봅시다

오늘의 Github

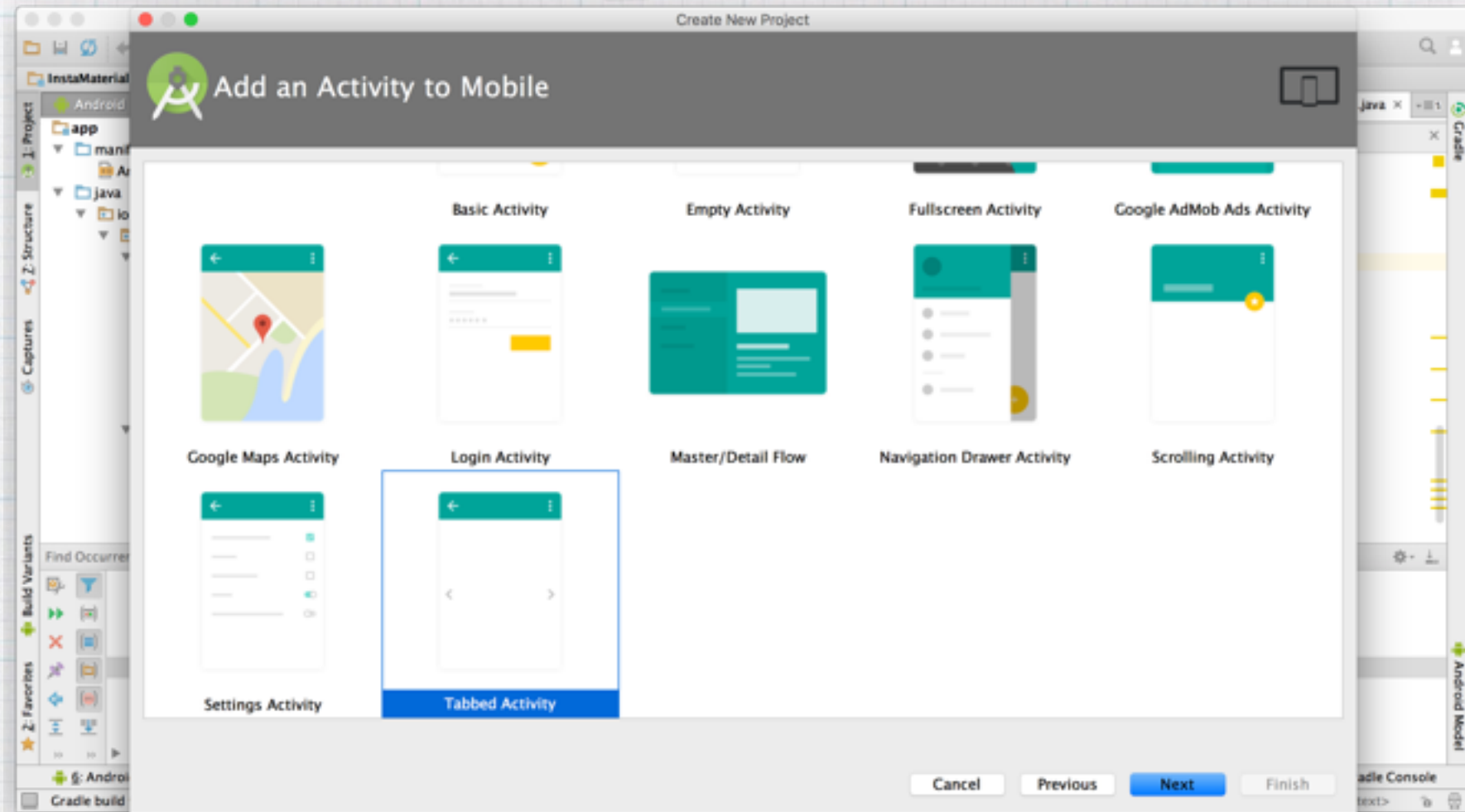
- * 실습 최종 코드 : <https://github.com/hyeyag/WhereUAt>
- * Reference 코드 : <https://github.com/frogermcs/InstaMaterial>

새로 프로젝트 만들기



* Minimum SDK : API 21 로 설정

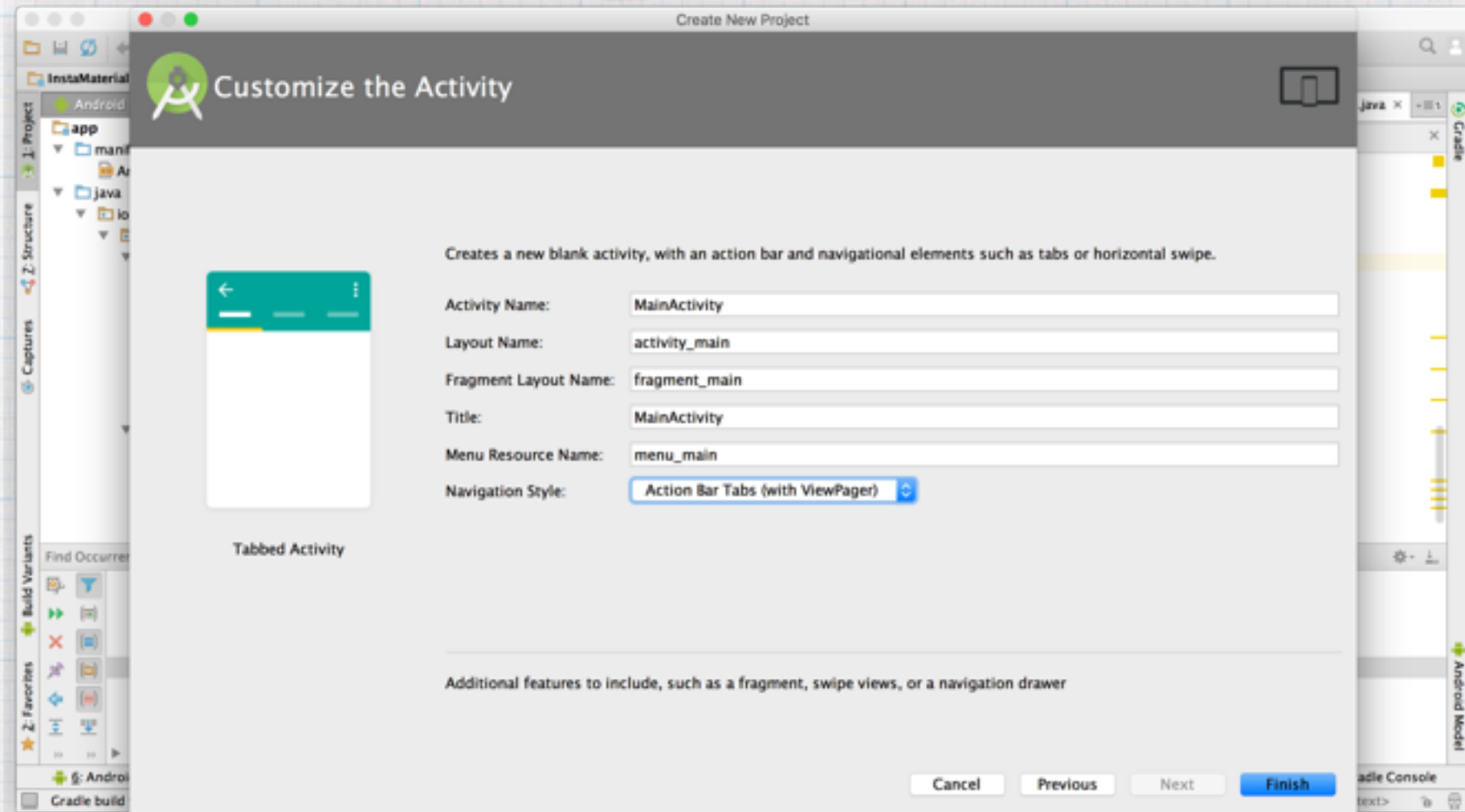
Tab Menu를 만들어 보자



* Tabbed Activity 선택

* Fragment 와 FragmentPagerAdapter 사용

원하는 이름으로 마무리



* Action Bar (with ViewPager) 선택

android.design.support

- * <http://android-developers.blogspot.kr/2015/05/android-design-support-library.html>
- * <https://developer.android.com/topic/libraries/support-library/features.html>

Fragment

- * Activity 내 여러 UI 를 구현할 때
- * <https://developer.android.com/guide/components/fragments.html>

Toolbar

- * <http://googledevkr.blogspot.kr/2014/10/appcompat-v21-material-design-for-pre.html>
- * <https://developer.android.com/reference/android/support/v7/widget/Toolbar.html>

AppBarLayout

- * CoordinatorLayout 내에 자연스러운 스크롤
- * <https://developer.android.com/reference/android/support/design/widget/AppBarLayout.html>
- * <http://googledevkr.blogspot.kr/2015/06/designsupport.html>

Tablayout

- * ViewPager를 컨트롤 할 수 있는 Tab
- * <https://developer.android.com/reference/android/support/design/widget/TabLayout.html>

ViewPager

- * 화면 좌우 슬라이드로 전환
- * [https://developer.android.com/reference/
android/support/v4/view/
ViewPager.html](https://developer.android.com/reference/android/support/v4/view/ViewPager.html)

FloatingActionButton

- * 떠다니는 버튼
- * [https://developer.android.com/reference/
android/support/design/widget/
FloatingActionButton.html](https://developer.android.com/reference/android/support/design/widget/FloatingActionButton.html)

기본 형태

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout xmlns:android="http://
schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:id="@+id/main_content"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="com.example.bangchangbae.friendlyapplication.MainActivity">
```

```
<android.support.design.widget.AppBarLayout
    android:id="@+id/appbar"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingTop="@dimen/appbar_padding_top"
    android:theme="@style/AppTheme.AppBarOverlay">

    <android.support.v7.widget.Toolbar
        android:id="@+id/toolbar"
        android:layout_width="match_parent"
        android:layout_height="?attr/actionBarSize"
        android:background="?attr/colorPrimary"
        app:popupTheme="@style/AppTheme.PopupOverlay"
        app:layout_scrollFlags="scroll|enterAlways">
```

```
</android.support.v7.widget.Toolbar>
```

```
<android.support.design.widget.TabLayout
    android:id="@+id/tabs"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />
```



기본 형태

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:id="@+id/main_content"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="com.example.bangchangbae.friendlyapplication.MainActivity">

    <android.support.design.widget.AppBarLayout
        android:id="@+id/appbar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingTop="@dimen/appbar_padding_top"
        android:theme="@style/AppTheme.AppBarOverlay">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="?attr/colorPrimary"
            app:popupTheme="@style/AppTheme.PopupOverlay"
            app:layout_scrollFlags="scroll|enterAlways">

            </android.support.v7.widget.Toolbar>

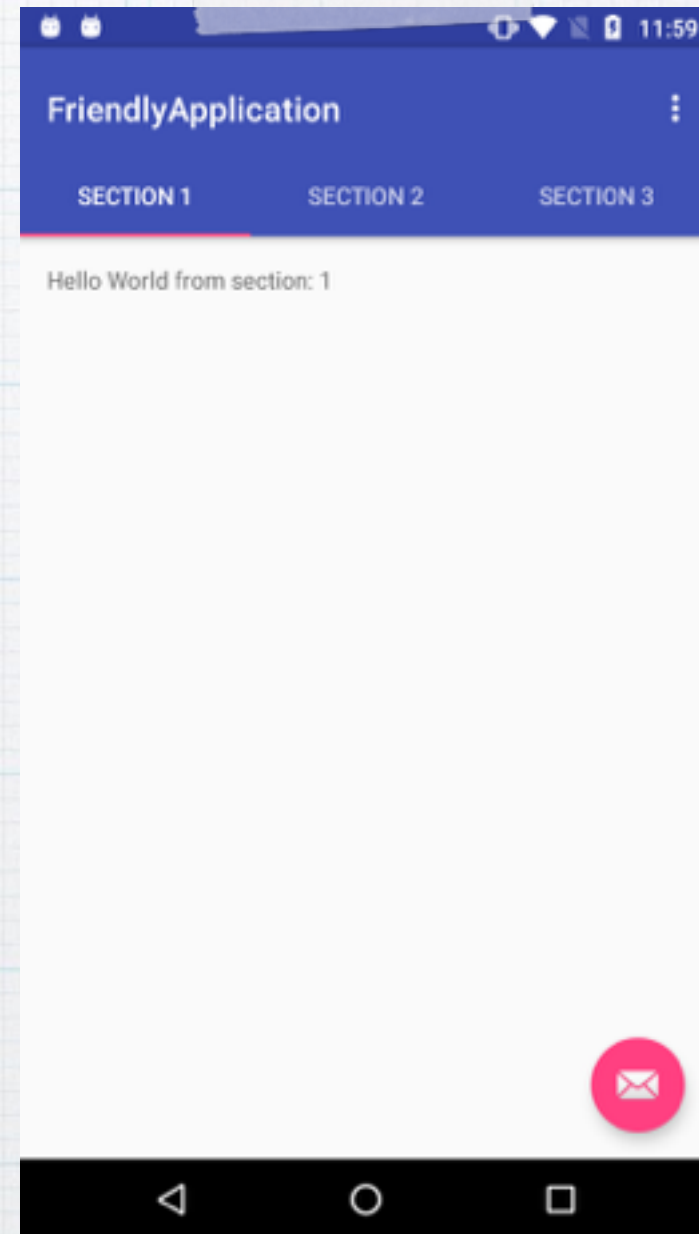
        <android.support.design.widget.TabLayout
            android:id="@+id/tabs"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" />

    </android.support.design.widget.AppBarLayout>

    <android.support.v4.view.ViewPager
        android:id="@+id/container"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_behavior="@string/appbar_scrolling_view_behavior"/>

    <android.support.design.widget.FloatingActionButton
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="end|bottom"
        android:layout_margin="@dimen/fab_margin"
        android:src="@android:drawable/ic_dialog_email" />

</android.support.design.widget.CoordinatorLayout>
```

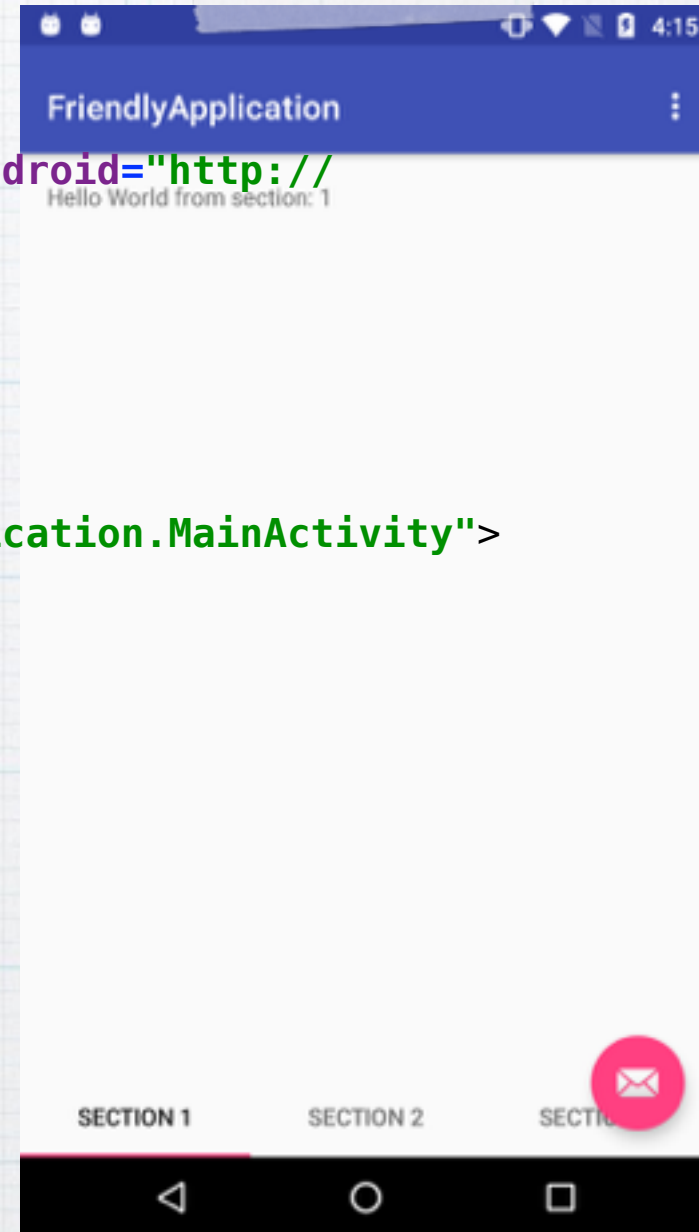


Tab을 아래로 이동

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:id="@+id/main_content"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="com.example.bangchangbae.friendlyapplication.MainActivity">
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical">
    <android.support.design.widget.AppBarLayout
        android:id="@+id/appbar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingTop="@dimen/appbar_padding_top"
        android:theme="@style/AppTheme.AppBarOverlay">

        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="?attr/colorPrimary"
            app:popupTheme="@style/AppTheme.PopupOverlay"
            app:layout_scrollFlags="scroll|enterAlways">

            </android.support.v7.widget.Toolbar>
```



원래 있던 Tab 지우기

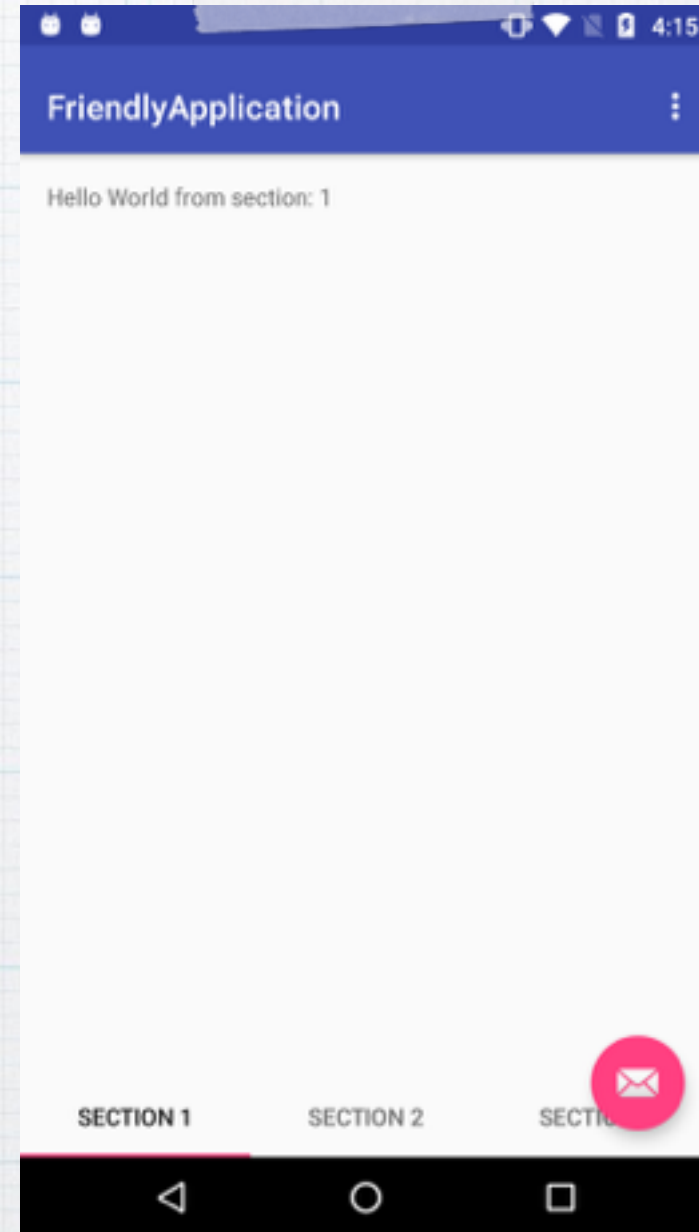
```
<android.support.design.widget.AppBarLayout
    android:id="@+id/appbar"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingTop="@dimen/appbar_padding_top"
    android:theme="@style/AppTheme.AppBarOverlay">

    <android.support.v7.widget.Toolbar
        android:id="@+id/toolbar"
        android:layout_width="match_parent"
        android:layout_height="?attr/actionBarSize"
        android:background="?attr/colorPrimary"
        app:popupTheme="@style/AppTheme.PopupOverlay"
        app:layout_scrollFlags="scroll|enterAlways">

        </android.support.v7.widget.Toolbar>

        <!--<android.support.design.widget.TabLayout
            android:id="@+id/tabs"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" />-->

    </android.support.design.widget.AppBarLayout>
```

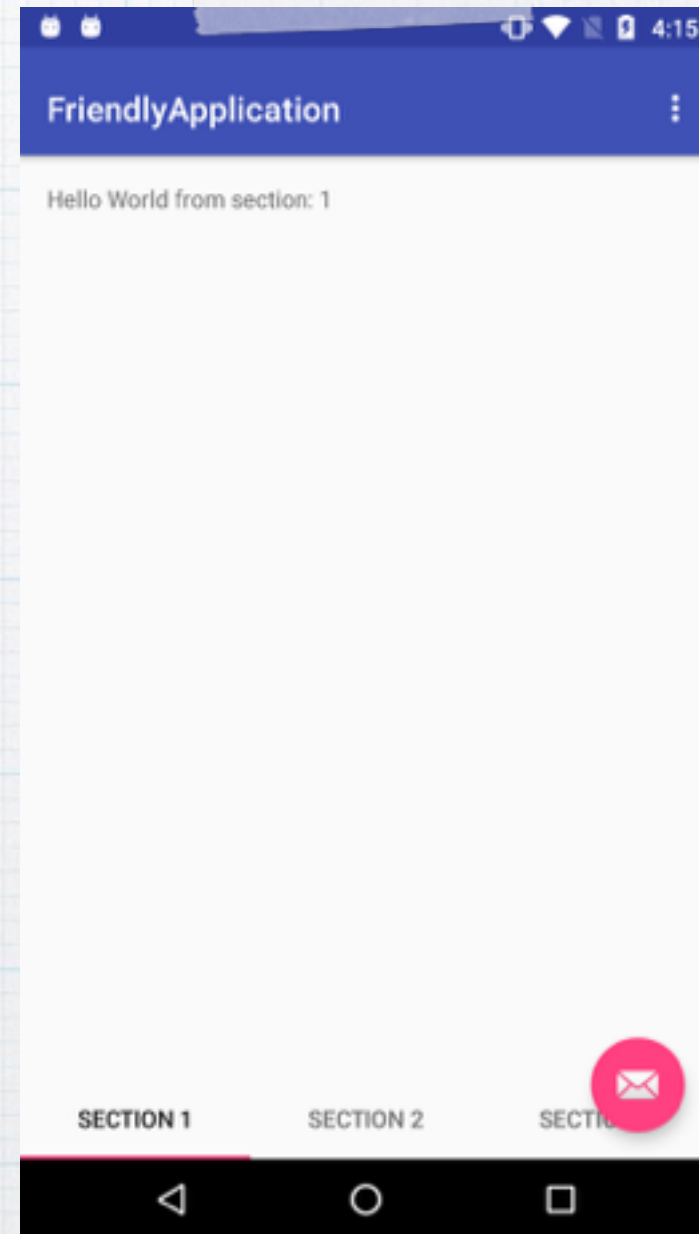


Layout 로 ViewPager와 Tab 영역 나누기

```
<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <android.support.v4.view.ViewPager
        android:id="@+id/container"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_behavior="@string/
appbar_scrolling_view_behavior"/>

    <android.support.design.widget.TabLayout
        android:id="@+id/tabs"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        />
    </RelativeLayout>
</LinearLayout>

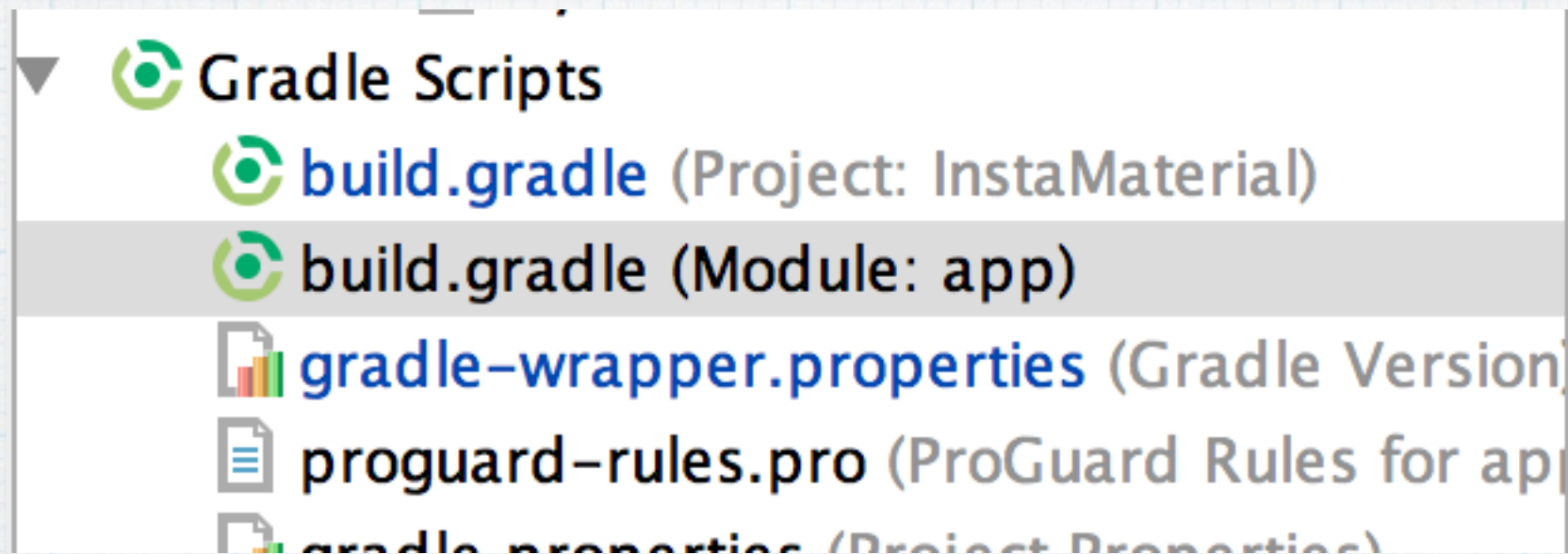
<android.support.design.widget.FloatingActionButton
```



CardView

- * 스크롤 리스트에 사용하기 좋은
FrameLayout
- * [https://developer.android.com/training/
material/lists-cards.html](https://developer.android.com/training/material/lists-cards.html)

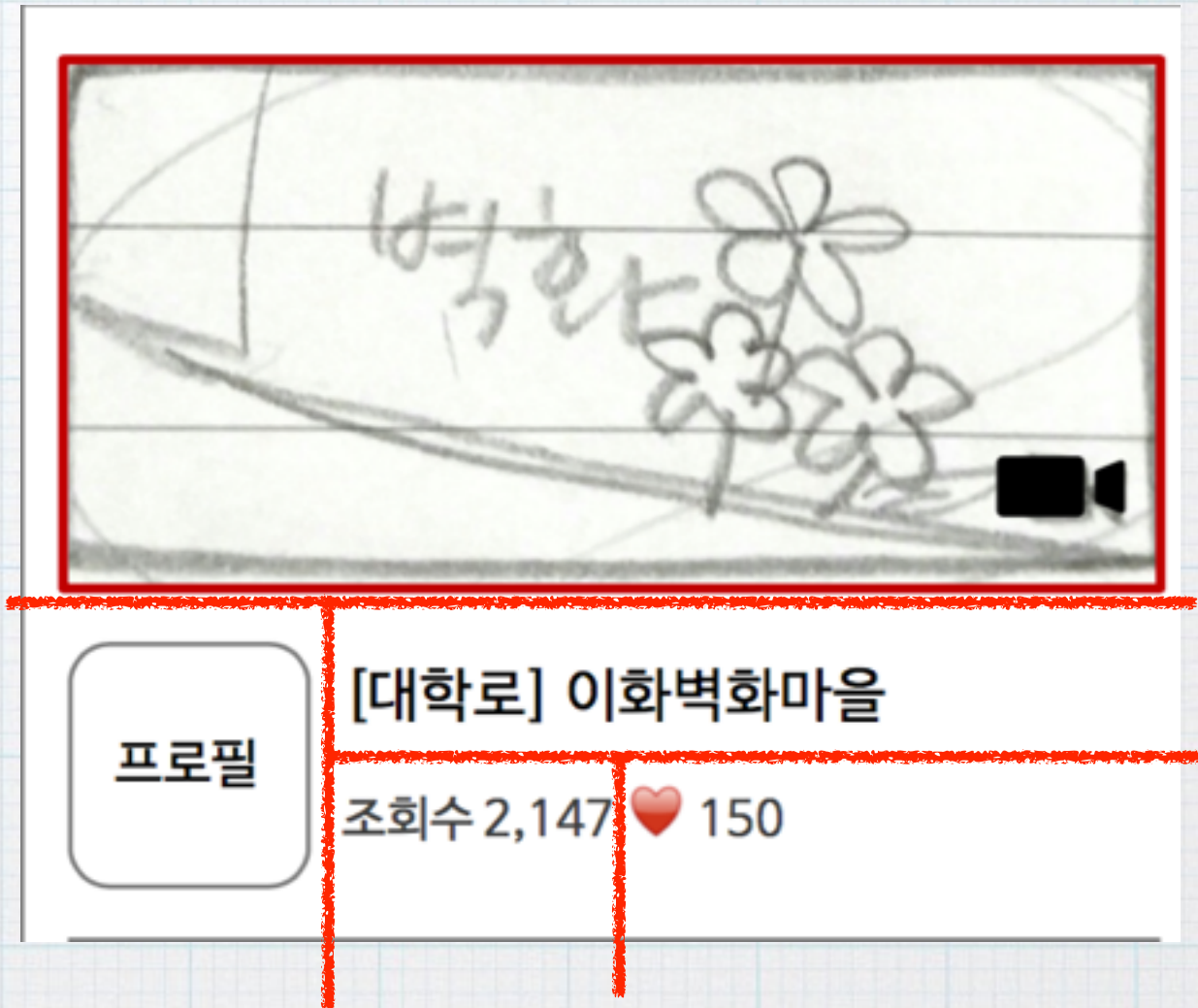
cardview 추가



```
dependencies {  
    compile fileTree(dir: 'libs', include: ['*.jar'])  
    testCompile 'junit:junit:4.12'  
    compile 'com.android.support:appcompat-v7:23.4.0'  
    compile 'com.android.support:design:23.4.0'  
    compile 'com.android.support:cardview-v7:23.1.1'  
}
```

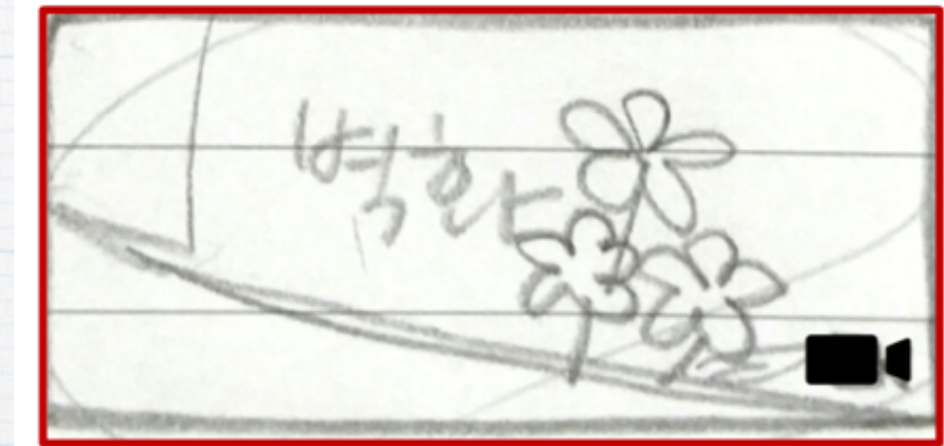

홈화면 구성

새로 layout을 구성
LinearLayout 을 이용하여
item_feed.xml 을 구성



위/아래 나누기

```
<LinearLayout  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:orientation="vertical">  
    <ImageView ... />  
    <LinearLayout ... />  
</LinearLayout>
```



프로필

[대학로] 이화벽화마을

조회수 2,147 ❤️ 150

* orientation을 vertical로 설정

좌/우 나누기

```
<LinearLayout  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:orientation="horizontal">  
    <ImageView .../>  
    <LinearLayout .../>  
</LinearLayout>
```



프로필

[대학로] 이화벽화마을

조회수 2,147 ❤️ 150

* orientation을 horizontal 로 설정

위/아래 나누기

```
<LinearLayout  
    android:layout_width="wrap_content"  
    android:layout_height="match_parent"  
    android:orientation="vertical"  
    android:layout_weight="1">  
    <TextView .../>  
    <LinearLayout .../>  
</LinearLayout .../>
```



프로필

[대학로] 이화벽화마을

조회수 2,147 ❤️ 150

* orientation을 vertical로 설정

좌/우 나누기

```
<LinearLayout  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:orientation="horizontal"  
    android:baselineAligned="false">  
    <LinearLayout .../>  
    <LinearLayout .../>  
</LinearLayout>
```



프로필

[대학로] 이화벽화마을

조회수 2,147 ❤️ 150

* orientation을 horizontal 로 설정

item_feed.xml 완성

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.v7.widget.CardView xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:card_view="http://schemas.android.com/apk/res-auto"
    android:id="@+id/card_view"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_margin="8dp"
    card_view:cardCornerRadius="4dp">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <ImageView
            android:id="@+id/ivFeedCenter"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:scaleType="centerCrop"
            android:src="@drawable/img_feed_center_1"
            android:layout_weight="1" />

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="horizontal">
            <ImageView
                android:id="@+id/ivUserProfile"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
```


첫 번째 Section에 설정

```
@Override
public View onCreateView(LayoutInflater inflater, ViewGroup
container,
    Bundle savedInstanceState) {
    int sectionNumber = getArguments().getInt(ARG_SECTION_NUMBER);
    View rootView = null;

    if(sectionNumber == 1){
        rootView = inflater.inflate(R.layout.item_feed, container,
false);
    }
    else{
        //View rootView = inflater.inflate(R.layout.fragment_main,
container, false);
        rootView = inflater.inflate(R.layout.fragment_main,
container, false);
        TextView textView = (TextView)
rootView.findViewById(R.id.section_label);
        //textView.setText(getString(R.string.section_format,
getArguments().getInt(ARG_SECTION_NUMBER)));
        textView.setText(getString(R.string.section_format,
sectionNumber));
    }

    return rootView;
}
```



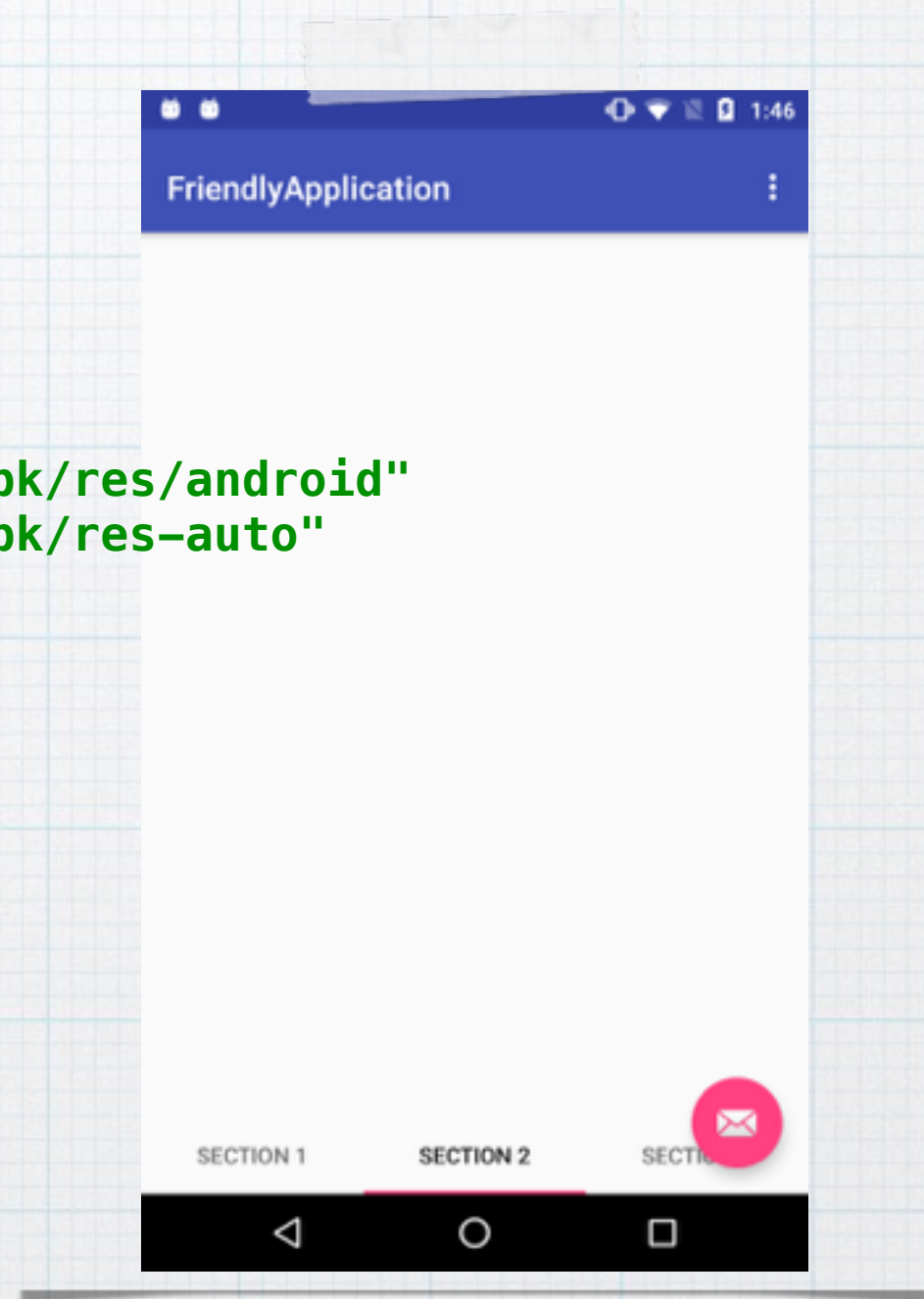
RecyclerView

- * ListView 보다 고급진 뷰
- * [https://developer.android.com/reference/
android/support/v7/widget/
RecyclerView.html](https://developer.android.com/reference/android/support/v7/widget/RecyclerView.html)

feed_list.xml 만들기

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.v7.widget.RecyclerView
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:id="@+id/rvFeed"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:scrollbars="none"
app:layout_behavior="@string/
appbar_scrolling_view_behavior">

</android.support.v7.widget.RecyclerView>
```

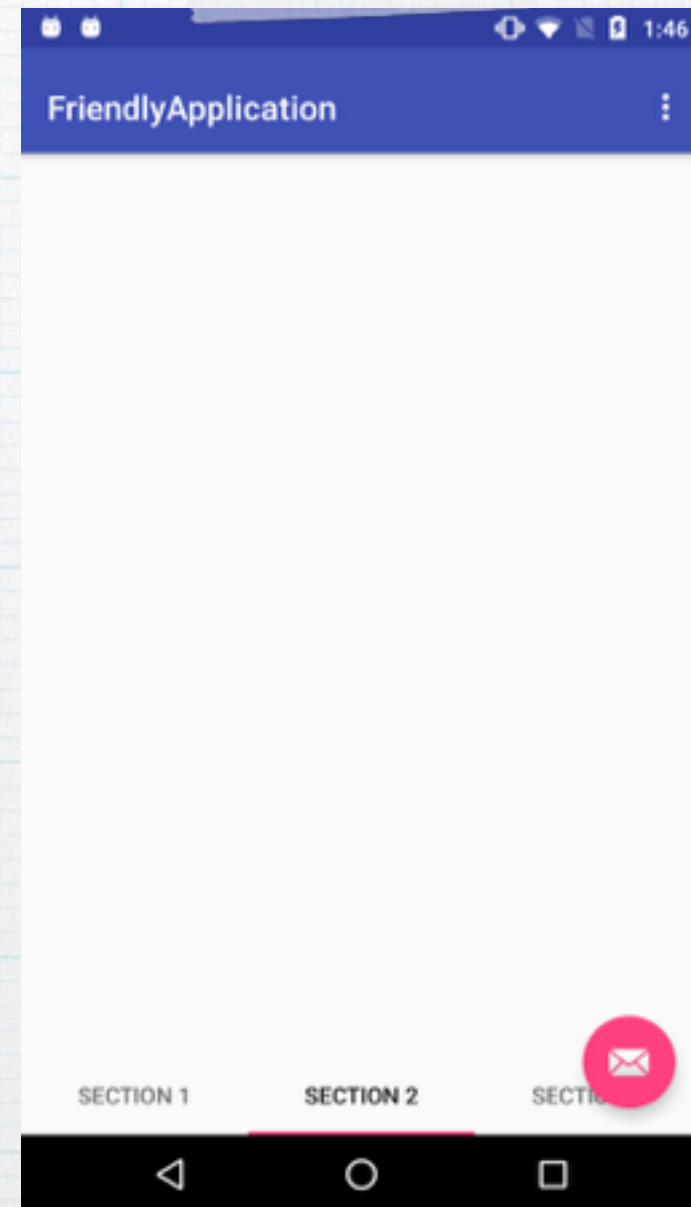


두 번째 Section에 설정

```
@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
    Bundle savedInstanceState) {
    int sectionNumber = getArguments().getInt(ARG_SECTION_NUMBER);
    View rootView = null;

    if(sectionNumber == 1){
        rootView = inflater.inflate(R.layout.item_feed, container, false);
    }
    else if(sectionNumber == 2){
        rootView = inflater.inflate(R.layout.feed_list, container, false);
        if (rootView instanceof RecyclerView) {
            Context context = rootView.getContext();
            RecyclerView mRecyclerView = (RecyclerView) rootView;
            mRecyclerView.setHasFixedSize(true);
        }
    }
    else{
        rootView = inflater.inflate(R.layout.fragment_main, container, false);
        TextView textView = (TextView) rootView.findViewById(R.id.section_label);
        textView.setText(getString(R.string.section_format, sectionNumber));
    }

    return rootView;
}
```



Feed List에 사용할 Adapter

```
public class MyFeedListAdapter extends RecyclerView.Adapter<MyFeedListAdapter.ViewHolder> {
    private List<MyFeed> myList;
    private Context context;

    public MyFeedListAdapter(Context context) {
        this.myList = new ArrayList<>();
        this.context = context;
    }

    @Override
    public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
        View v = LayoutInflater.from(parent.getContext()).inflate(R.layout.item_feed, parent, false);
        return new ViewHolder(v);
    }

    @Override
    public void onBindViewHolder(final ViewHolder holder, int position) {
    }

    @Override
    public int getItemCount() {
        return myList.size();
    }

    public class ViewHolder extends RecyclerView.ViewHolder {
        public ViewHolder(View view) {
        }
    }

    public class MyFeed {
        public String feed_img_src = null;
        public String profile_img_src = null;
        public String title_name = null;
        public int views_number = 0;
        public int likes_number = 0;
        public MyFeed(String feed_img_src, String profile_img_src, String title_name, int views_number, int likes_number){
            this.feed_img_src = feed_img_src;
            this.profile_img_src = profile_img_src;
            this.title_name = title_name;
            this.views_number = views_number;
            this.likes_number = likes_number;
        }
    }
}
```


Feed List에 사용할 Adapter

```
private class DownloadImageTask extends AsyncTask<String, Void, Bitmap> {
    ImageView bmImage;

    public DownloadImageTask(ImageView bmImage) {
        this.bmImage = bmImage;
    }

    protected Bitmap doInBackground(String... urls) {
        String urldisplay = urls[0];
        Bitmap mIcon11 = null;
        try {
            InputStream in = new java.net.URL(urldisplay).openStream();
            mIcon11 = BitmapFactory.decodeStream(in);
        } catch (Exception e) {
            Log.e("Error", e.getMessage());
            e.printStackTrace();
        }
        return mIcon11;
    }

    protected void onPostExecute(Bitmap result) {
        bmImage.setImageBitmap(result);
    }
}
```


Feed List에 사용할 Adapter

```
public class ViewHolder extends RecyclerView.ViewHolder {  
    public final View mView;  
    public final ImageView mFeedCenterImageView;  
    public final ImageView mProfileImageView;  
    public final TextView mFeedTitleTextView;  
    public final TextSwitcher mLikesNumberTextSwitcher;  
    public final TextSwitcher mViewsNumberTextSwitcher;  
  
    public ViewHolder(View view) {  
        super(view);  
        mView = view;  
        mFeedCenterImageView = (ImageView) view.findViewById(R.id.ivFeedCenter);  
        mProfileImageView = (ImageView) view.findViewById(R.id.ivUserProfile);  
        mFeedTitleTextView = (TextView) view.findViewById(R.id.ivFeedTitle);  
        mLikesNumberTextSwitcher = (TextSwitcher) view.findViewById(R.id.tsLikesCounter);  
        mViewsNumberTextSwitcher = (TextSwitcher) view.findViewById(R.id.tsViewCounter);  
    }  
}
```


Feed List에 사용할 Adapter

```
public MyFeedListAdapter(Context context) {
    this.myList = new ArrayList<>();
    this.context = context;
    this.update();
}

public void update(){
    this.myList.clear();
    MyFeed one = new MyFeed("", "", "[TEST] one", 111, 11111);
    MyFeed two = new MyFeed("", "", "[TEST] two", 211, 21111);
    MyFeed three = new MyFeed("", "", "[TEST] three", 311, 31111);
    myList.add(one);
    myList.add(two);
    myList.add(three);
}

@Override
public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
    View v = LayoutInflater.from(parent.getContext()).inflate(R.layout.item_feed, parent, false);
    return new ViewHolder(v);
}

@Override
public void onBindViewHolder(final ViewHolder holder, int position) {
    MyFeed my = myList.get(position);

    //new DownloadImageTask(holder.mFeedCenterImageView).execute(my.feed_img_src);
    //new DownloadImageTask(holder.mProfileImageView).execute(my.profile_img_src);
    holder.mFeedTitleTextView.setText(my.title_name);
    holder.mLikesNumberTextSwitcher.setCurrentText(holder.mView.getResources().getQuantityString(R.plurals.likes_count,
    my.likes_number, my.likes_number));
    holder.mViewsNumberTextSwitcher.setCurrentText(holder.mView.getResources().getQuantityString(R.plurals.views_count,
    my.views_number, my.views_number));
}
```


두 번째 Section에 적용

```
else if(sectionNumber == 2){  
    rootView = inflater.inflate(R.layout.feed_list, container, false);  
    if (rootView instanceof RecyclerView) {  
        Context context = rootView.getContext();  
        RecyclerView mRecyclerView = (RecyclerView) rootView;  
        mRecyclerView.setHasFixedSize(true);  
  
        mLayoutManager = new LinearLayoutManager(context);  
        mRecyclerView.setLayoutManager(mLayoutManager);  
  
        mAdapter = new MyFeedListAdapter(context);  
        mRecyclerView.setAdapter(mAdapter);  
    }  
}
```

