

## Belajar Android Studio Material Design

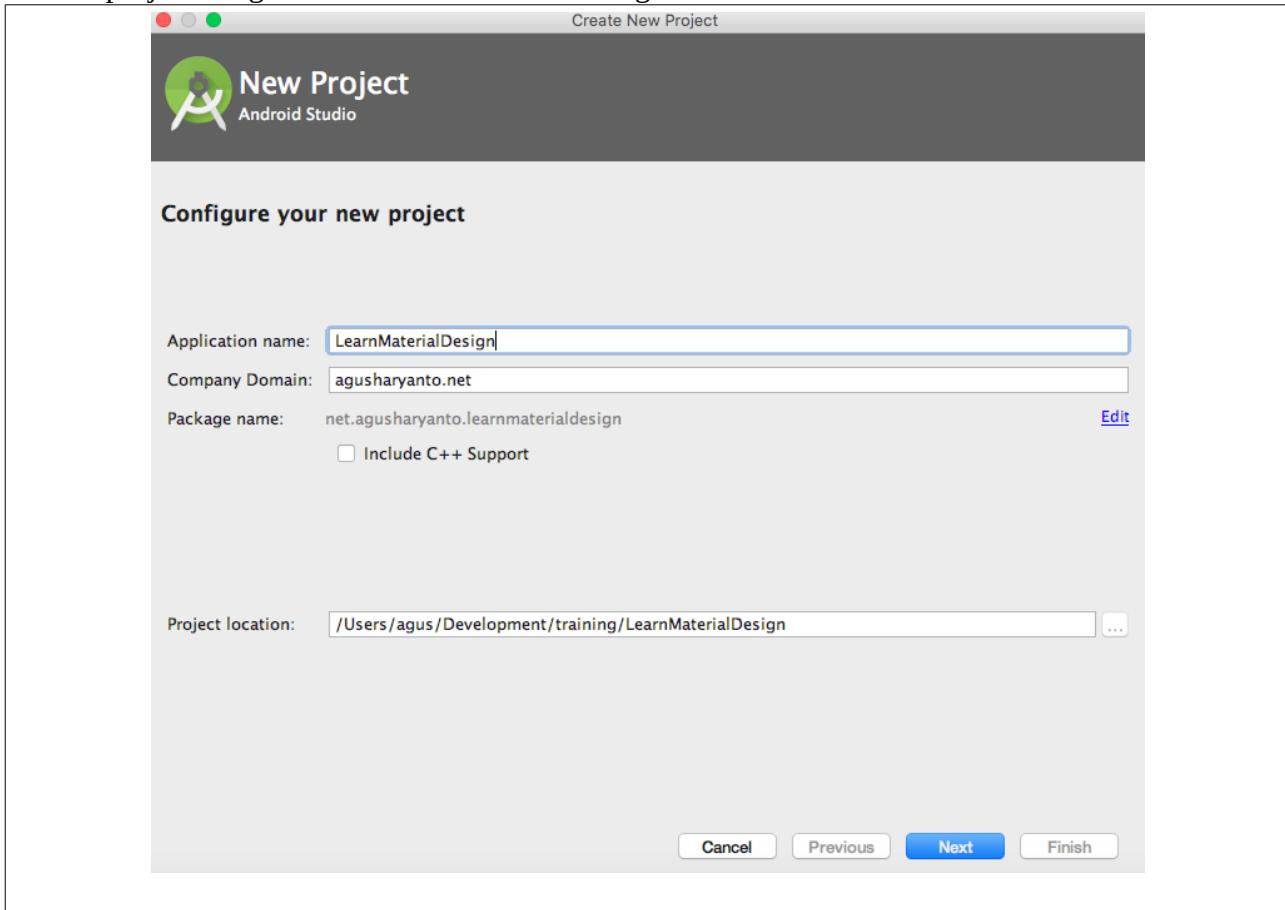
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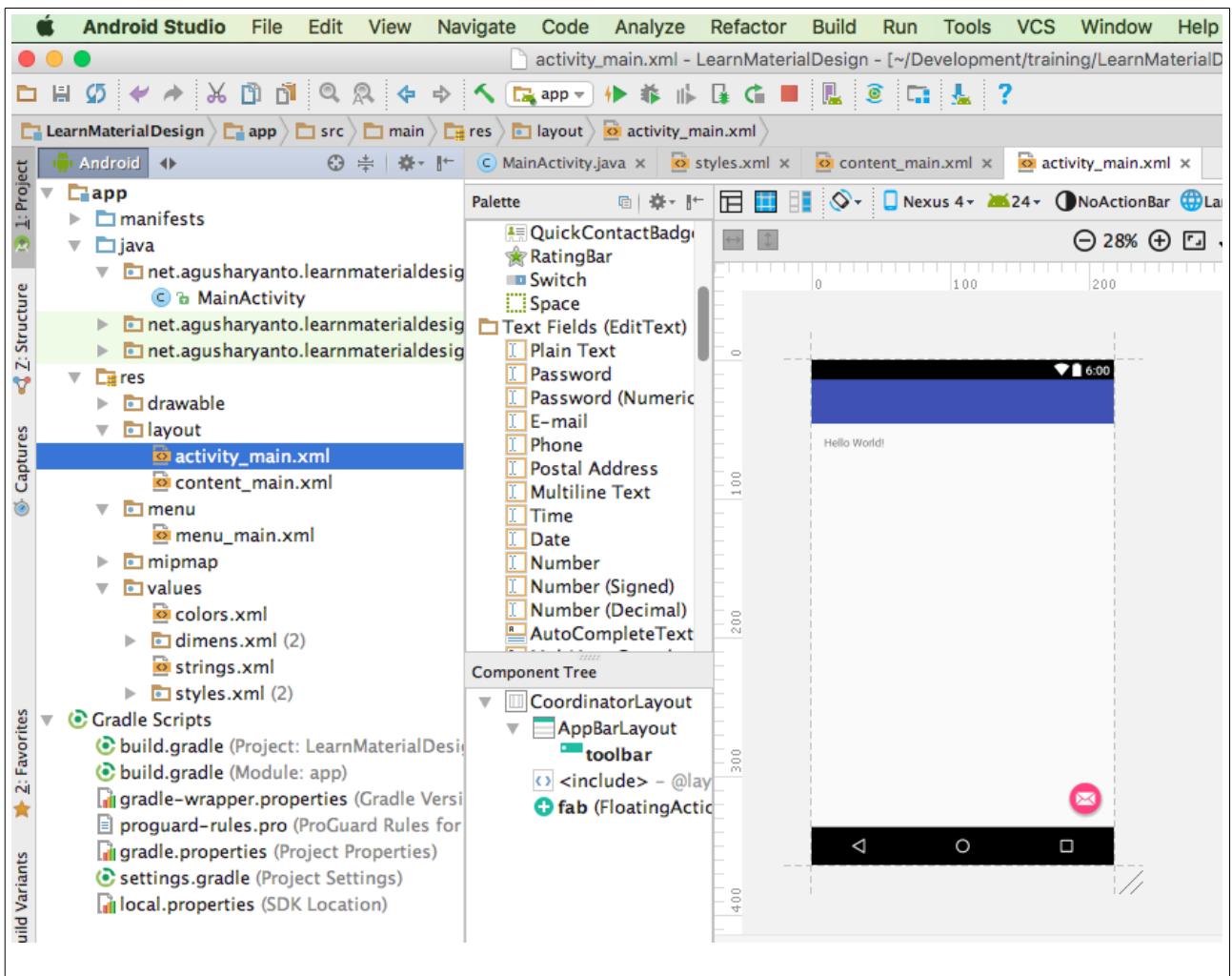
Sekarang jamannya material design, mari kita coba belajar materila design

1. Buat project dengan nama “LearnMaterialDesign”



Klik Next sampai pada pilihan **Activity** pilih **Basic Activity** klik next terus sampai finish

2. Setelah project terbuat maka strukturnya adalah seperti ini



### 3. buka activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="net.agusharyanto.learnmaterialdesign.MainActivity">
    <android.support.design.widget.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        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" />
    </android.support.design.widget.AppBarLayout>
    <include layout="@layout/content_main" />
    <android.support.design.widget.FloatingActionButton
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```

        android:layout_gravity="bottom|end"
        android:layout_margin="@dimen/fab_margin"
        app:srcCompat="@android:drawable/ic_dialog_email" />
</android.support.design.widget.CoordinatorLayout>

```

Disini kita sudah menggunakan CoordinatorLayout dimana didalamnya ada AppBarLayout yang sudah ada Toolbar untuk tempat menu. Disini untuk menyederhanakan code layout design ui detailnya ada di content\_main.xml. FloatingActionButton adalah button yang bisa kita tempatkan menurut layout\_gravitynya.

### 3. Sekarang kita lihat MainActivity.java

```

package net.agusharyanto.learnmaterialdesign;
import android.os.Bundle;
import android.support.design.widget.FloatingActionButton;
import android.support.design.widget.Snackbar;
import android.support.v7.app.AppCompatActivity;
import android.support.v7.widget.Toolbar;
import android.view.View;
import android.view.Menu;
import android.view.MenuItem;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
        setSupportActionBar(toolbar);
        FloatingActionButton fab = (FloatingActionButton)
        findViewById(R.id.fab);
        fab.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Snackbar.make(view, "Replace with your own action",
Snackbar.LENGTH_LONG)
                    .setAction("Action", null).show();
            }
        });
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is
        // present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();
        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }
        return super.onOptionsItemSelected(item);
    }
}

```

```
    }  
}
```

Disini untuk menampilkan menu kita harus mendaftarkan toolbar dan untuk FloatingActionButton sudah diberi listener.

## Tab

Untuk membuat Tab ada beberapa hal yang harus di tambahkan.

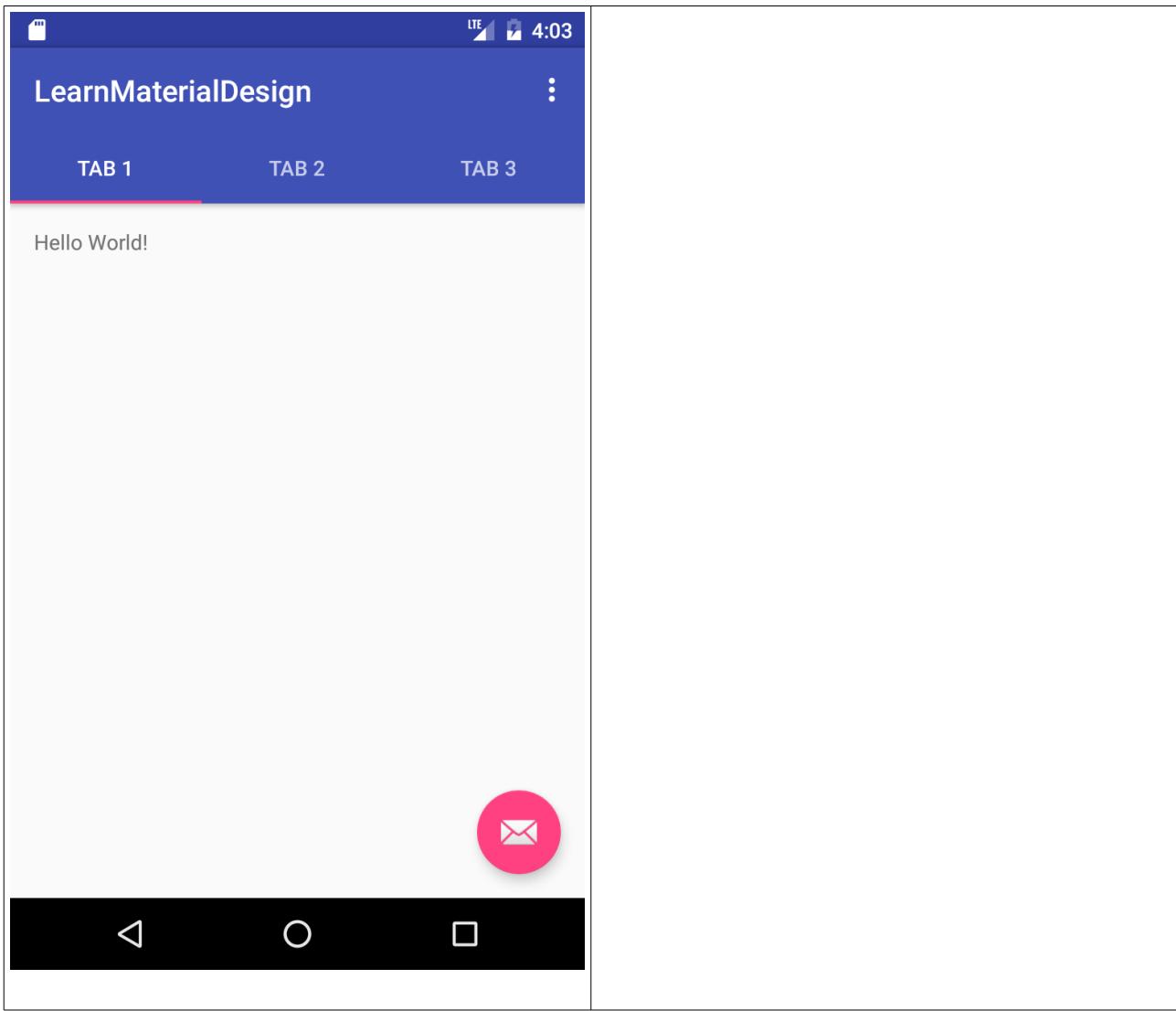
3. Pada layout kita bisa gunakan **TabsLayout**, Tambahkan kode berikut pada activity\_main.xml tepat dibawah toolbar

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

4. Pada bagian akhir method **onCreate** di MainActivity tambahkan kode untuk membuat tabs.

```
TabLayout tabs = (TabLayout) findViewById(R.id.tabs);  
tabs.addTab(tabs.newTab().setText("Tab 1"));  
tabs.addTab(tabs.newTab().setText("Tab 2"));  
tabs.addTab(tabs.newTab().setText("Tab 3"));
```

5. Run project

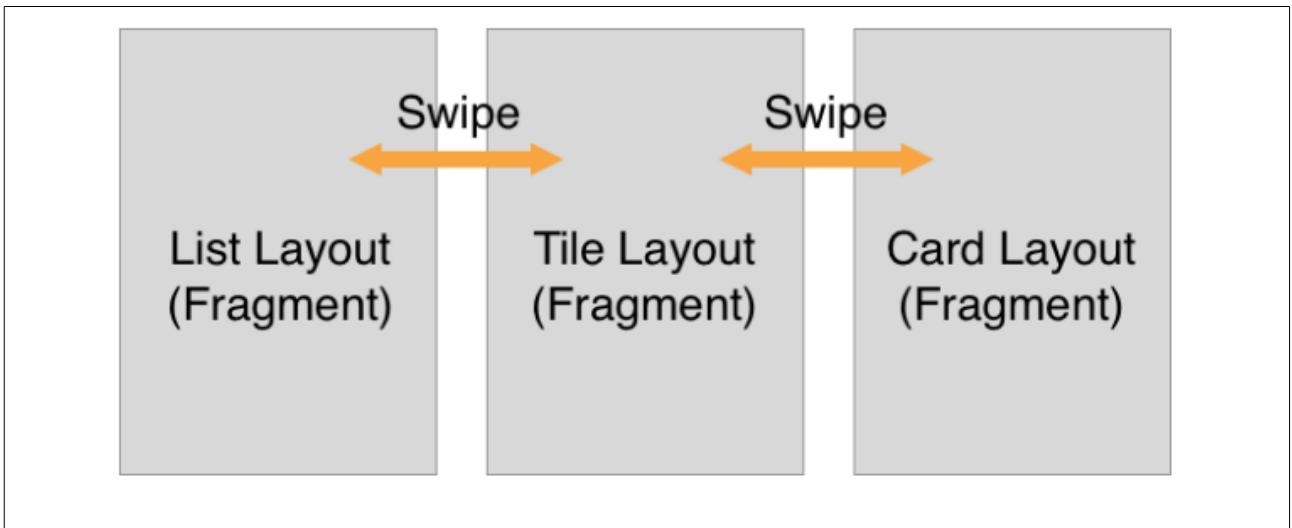


Klik Tab 1 lalu Tab 2 kemudian Tab 3. Kita sudah berhasil membuat Tab. Tapi kok nggak bisa pindah yah kalu kita swipe ke kanan atau ke kiri. Tenang ini baru awal, untuk bisa seperti itu kita butuh viewPager.

### **ViewPager**

Agar lebih terlihat bedanya kita ingin tiap Tab punya tampilan berbeda untuk itu kita perlu buat fragment untuk masing-masing tab.

5. Buat 3 buah **Fragment** masing-masing beri nama **ListContentFragment**, **TileContentFragment** dan **CardContentFragment**.



### ListContentFragment.java

```
package net.agusharyanto.learnmaterialdesign;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
public class ListContentFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                           Bundle savedInstanceState) {
        return inflater.inflate(R.layout.item_list, container, false);
    }
}
```

### item\_list.xml

```
<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:orientation="vertical"
    tools:context="net.agusharyanto.learnmaterialdesign.ListContentFragment">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="Lists" />
</LinearLayout>
```

### TileContentFragment.java

```
package net.agusharyanto.learnmaterialdesign;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.view.LayoutInflater;
import android.view.View;
```

```
import android.view.ViewGroup;
public class TileContentFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                           Bundle savedInstanceState) {
        return inflater.inflate(R.layout.item_tile, container, false);
    }
}
```

### item\_tile.xml

```
<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:orientation="vertical"
    tools:context="net.agusharyanto.learnmaterialdesign.TileContentFragment">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="Tiles" />
</LinearLayout>
```

### CardContentFragment.java

```
package net.agusharyanto.learnmaterialdesign;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
public class CardContentFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                           Bundle savedInstanceState) {
        return inflater.inflate(R.layout.item_card, container, false);
    }
}
```

### item\_card.xml

```
<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:orientation="vertical"
    tools:context="net.agusharyanto.learnmaterialdesign.TileContentFragment">
    <TextView
        android:layout_width="match_parent"
```

```
        android:layout_height="match_parent"
        android:text="Cards" />
</LinearLayout>
```

6. Setelah kita membuat 3 fragment, kita sekarang bisa menggunakan ViewPager dan Adapter untuk membuat Tabnya bisa di Swipe (Scrollable). Pada MainActivity.java tambahkan kode untuk ViewPager dan Adapternya.

Tapi sebelum itu kita tambahkan viewpager pada layout activity\_main.xml hapus code <include layout="@layout/content\_main" />  
lalu ganti dengan viewpager  
activity\_main.xml

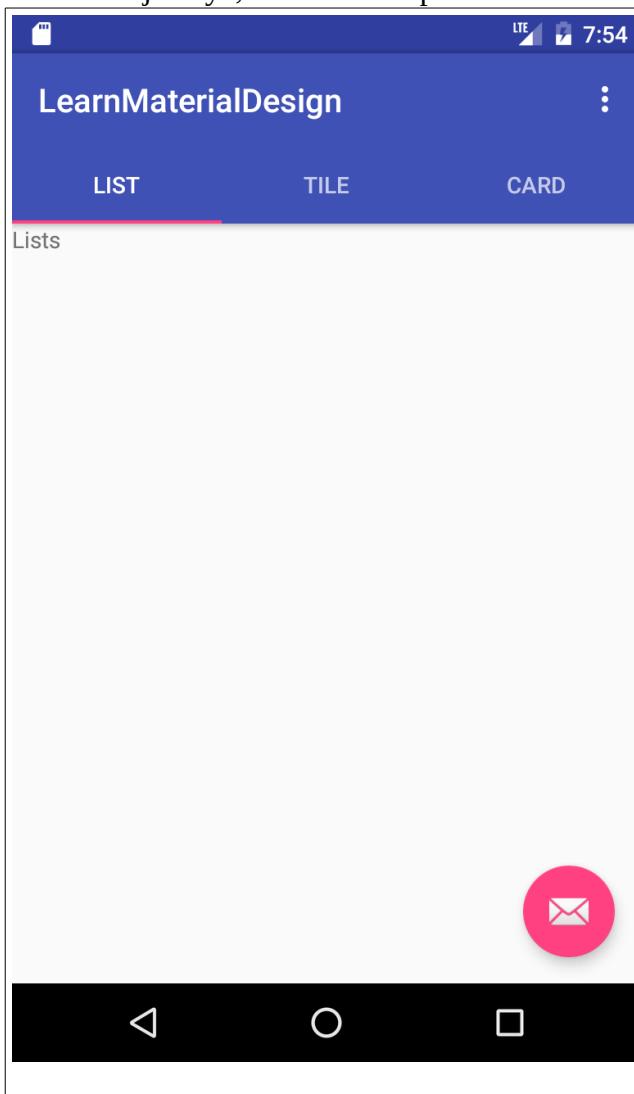
```
<android.support.v4.view.ViewPager
    android:id="@+id/viewpager"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    app:layout_behavior="@string/appbar_scrolling_view_behavior" />
```

#### MainActivity.java

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
    setSupportActionBar(toolbar);
    FloatingActionButton fab = (FloatingActionButton) findViewById(R.id.fab);
    fab.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Snackbar.make(view, "Replace with your own action",
            Snackbar.LENGTH_LONG)
                .setAction("Action", null).show();
        }
    });
    // Setting ViewPager for each Tabs
    ViewPager viewPager = (ViewPager) findViewById(R.id.viewpager);
    setupViewPager(viewPager);
    // Set Tabs inside Toolbar
    TabLayout tabs = (TabLayout) findViewById(R.id.tabs);
    tabs.setupWithViewPager(viewPager);
}
// Add Fragments to Tabs
private void setupViewPager(ViewPager viewPager) {
    Adapter adapter = new Adapter(getSupportFragmentManager());
    adapter.addFragment(new ListContentFragment(), "List");
    adapter.addFragment(new TileContentFragment(), "Tile");
    adapter.addFragment(new CardContentFragment(), "Card");
    viewPager.setAdapter(adapter);
}
static class Adapter extends FragmentPagerAdapter {
    private final List<Fragment> mFragmentList = new ArrayList<>();
```

```
private final List<String> mFragmentTitleList = new ArrayList<>();
public Adapter(FragmentManager manager) {
    super(manager);
}
@Override
public Fragment getItem(int position) {
    return mFragmentList.get(position);
}
@Override
public int getCount() {
    return mFragmentList.size();
}
public void addFragment(Fragment fragment, String title) {
    mFragmentList.add(fragment);
    mFragmentTitleList.add(title);
}
@Override
public CharSequence getPageTitle(int position) {
    return mFragmentTitleList.get(position);
}
}
```

7. Run Projectnya, lalu coba swipe ke kanan dan ke kiri



## Style each view dan tambahkan RecyclerView

RecyclerView adalah sebuah container untuk menampilkan sekumpulan data yg besar yang dapat si scroll secara efisien dengan memanage limit jumlah viewnya. Dataset kita codelab ini terdiri dari empty cards yang merupakan bagian dari kertas sebagai pintu masuk untuk informasi lainnya.

12. Tambahkan **dependencies** ke **build.gradle(module)** untuk menggunakan CardView dan RecyclerView.

```
dependencies {
    compile fileTree(dir: 'libs', include: ['*.jar'])
    androidTestCompile('com.android.support.test.espresso:espresso-core:2.2.2',
{
    exclude group: 'com.android.support', module: 'support-annotations'
})
    compile 'com.android.support:appcompat-v7:24.2.1'
    compile 'com.android.support:design:24.2.1'
    compile 'com.android.support:support-v4:24.2.1'
    compile 'com.android.support:cardview-v7:24.2.1'
    compile 'com.android.support:recyclerview-v7:24.2.1'
    testCompile 'junit:junit:4.12'
}
```

13. Buat layout **recycler\_view.xml** pada directory res/layout

```
<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/my_recycler_view"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:clipToPadding="false"
    android:paddingBottom="@dimen/md_keylines"
    android:paddingTop="@dimen/md_keylines"
    android:scrollbars="vertical"
    app:layout_behavior="@string/appbar_scrolling_view_behavior" />
```

Tambahkan beberapa value pada **dimens.xml** pada directory res/values

```
<resources>
    <!-- Default screen margins, per the Android Design guidelines. -->
    <dimen name="activity_horizontal_margin">16dp</dimen>
    <dimen name="activity_vertical_margin">16dp</dimen>
    <dimen name="fab_margin">16dp</dimen>
    <!-- additional code -->
    <dimen name="card_height">304dp</dimen>
    <dimen name="md_keylines">16dp</dimen>
    <dimen name="tile_padding">8dp</dimen>
    <dimen name="tile_height">160dp</dimen>
    <dimen name="app_bar_height">256dp</dimen>
    <dimen name="article_keylines">72dp</dimen>
    <dimen name="avator_size">40dp</dimen>
```

```

<dimen name="card_title_height">40dp</dimen>
<dimen name="article_titles">20sp</dimen>
<dimen name="cards_button_width">48dp</dimen>
<dimen name="cards_button_height">48dp</dimen>
<dimen name="article_subheading">16sp</dimen>
<dimen name="card_image_height">200dp</dimen>
<dimen name="list_body">14sp</dimen>
<dimen name="navheader_height">222dp</dimen>
</resources>

```

14. Pada setiap fragment, buat dan kustomisasi RecyclerView. Dimulai dengan meng extending RecyclerView.ViewHolder. Replace R.layout.item\_title seperti yang ditunjukkan sesuai dengan view yang digunakan pada masing-masing fragment.

Sebelum melangkah lebih jauh kita perlu mengedit beberapa file di directory **res/values**

#### colors.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="colorPrimary">#3F51B5</color>
    <color name="colorPrimaryDark">#303F9F</color>
    <color name="colorAccent">#FF4081</color>
    <color name="white">#FFFFFF</color>
    <color name="dark_grey">#424242</color>
    <color name="medium_grey">#9E9E9E</color>
    <color name="button_grey">#757575</color>
</resources>

```

#### strings.xml

```

<resources>
    <string name="app_name">Learn Material Design</string>
    <string name="action_settings">Settings</string>
    <string name="item_title">Palais Garnier</string>
    <string name="item_desc">The Palais Garnier which locates in Paris was
built from 1861 for
        the Paris Opera.
    </string>
    <string name="detail_desc">Lorem ipsum dolor sit amet, consectetur
adipisicing elit, sed do
        eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad
minim veniam, quis
        nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute
        irure dolor in reprehenderit in voluptate velit esse cillum dolore eu
fugiat nulla
        pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
qui officia
        deserunt mollit anim id est laborum.
    </string>
    <string name="detail_location">"8 Rue Scribe, 75009 Paris, France"</string>
    <!-- TODO: Remove or change this placeholder text -->
    <string name="hello_blank_fragment">Hello blank fragment</string>

```

```
</resources>
```

## arrays.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string-array name="places">
        <item>Palais Garnier</item>
        <item>Piazza del Duomo</item>
        <item>Manhattan</item>
        <item>Senso-ji</item>
        <item>Sultan Ahmed Mosque</item>
        <item>Table Mountain</item>
    </string-array>
    <string-array name="place_desc">
        <item>The Palais Garnier which locates in Paris was built from 1861 for the Paris Opera.</item>
        <item>Piazza del Duomo the cathedral which locates in Florence.</item>
        <item>Manhattan is the district in New York City</item>
        <item>Senso-ji is the Shrine locates in Asakusa Tokyo</item>
        <item>Sultan Ahmed Mosque is mosque locates in Istabul, Turkey</item>
        <item>Table Mountain is mountain and park locates in Cape Town, South Africa.</item>
    </string-array>
    <string-array name="place_details">
        <item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</item>
        <item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</item>
        <item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</item>
        <item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.</item>
    </string-array>

```

```
deserunt mollit anim id est laborum.
</item>
<item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis
    nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute
        irure dolor in reprehenderit in voluptate velit esse cillum dolore eu
fugiat nulla
            pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
qui officia
    deserunt mollit anim id est laborum.
</item>
<item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis
    nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute
        irure dolor in reprehenderit in voluptate velit esse cillum dolore eu
fugiat nulla
            pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
qui officia
    deserunt mollit anim id est laborum.
</item>
<item>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis
    nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute
        irure dolor in reprehenderit in voluptate velit esse cillum dolore eu
fugiat nulla
            pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
qui officia
    deserunt mollit anim id est laborum.
</item>
</string-array>
<string-array name="place_locations">
    <item>8 Rue Scribe, 75009 Paris, France</item>
    <item>Piazza del Capitolo – 50122 Florence</item>
    <item>New York City</item>
    <item>2-3-1 Asakusa, Taitō-ku, Tokyo, Japan</item>
    <item>At Meydanı No:7, 34122 Fatih/İstanbul, Turkey</item>
    <item>Cape Town, South Africa</item>
</string-array>
<array name="place_avatar">
    <item>@drawable/a_avatar</item>
    <item>@drawable/b_avatar</item>
    <item>@drawable/c_avatar</item>
    <item>@drawable/d_avatar</item>
    <item>@drawable/e_avatar</item>
    <item>@drawable/f_avatar</item>
</array>
<array name="places_picture">
    <item>@drawable/a</item>
    <item>@drawable/b</item>
    <item>@drawable/c</item>
    <item>@drawable/d</item>
    <item>@drawable/e</item>
    <item>@drawable/f</item>
```

```
</array>
</resources>
```

Sekarang kita fokus ke layout item\_tile.xml lalu ganti isinya dengan code berikut

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    xmlns:tools="http://schemas.android.com/tools"
    android:background="?android:attr/selectableItemBackground"
    android:padding="@dimen/tile_padding">
    <ImageView
        android:id="@+id/tile_picture"
        android:layout_width="match_parent"
        android:layout_height="@dimen/tile_height"
        android:scaleType="centerCrop"
        tools:src="@drawable/a" />
    <ImageView
        android:layout_width="match_parent"
        android:layout_height="@dimen/tile_height"
        android:alpha="0.3"
        android:background="@color/dark_grey" />
    <TextView
        android:id="@+id/tile_title"
        android:layout_width="match_parent"
        android:layout_height="@dimen/tile_height"
        android:layout_gravity="center"
        android:gravity="center"
        tools:text="@string/item_title"
        android:textColor="@color/white"
        android:textSize="@dimen/article_titles" />
</RelativeLayout>
```

Sekarang kita ke TileContentFragment.java lalu rubah kodennya menjadi berikut

```
package com.example.android.materialdesigncodelab;
import android.content.Context;
import android.content.Intent;
import android.content.res.Resources;
import android.content.res.TypedArray;
import android.graphics.drawable.Drawable;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.widget.GridLayoutManager;
import android.support.v7.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
/**
 * A simple {@link Fragment} subclass.
 */
public class TileContentFragment extends Fragment {
```

```

@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
                        Bundle savedInstanceState) {
    RecyclerView recyclerView = (RecyclerView)
inflater.inflate(R.layout.recycler_view, container, false);
    ContentAdapter adapter = new ContentAdapter(recyclerView.getContext());
    recyclerView.setAdapter(adapter);
    recyclerView.setHasFixedSize(true);
    // Set padding for Tiles (not needed for Cards/Lists!)
    int tilePadding =
getResources().getDimensionPixelSize(R.dimen.tile_padding);
    recyclerView.setPadding(tilePadding, tilePadding,
tilePadding,tilePadding);
    recyclerView.setLayoutManager(new GridLayoutManager(getActivity(), 2));
    return recyclerView;
}
public static class ViewHolder extends RecyclerView.ViewHolder{
    public ImageView picture;
    public TextView name;
    public ViewHolder(LayoutInflater inflater, ViewGroup parent) {
        super(inflater.inflate(R.layout.item_tile, parent, false));
        picture = (ImageView) itemView.findViewById(R.id.tile_picture);
        name = (TextView) itemView.findViewById(R.id.tile_title);
        itemView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Context context = v.getContext();
                Intent intent = new Intent(context, DetailActivity.class);
                intent.putExtra(DetailActivity.EXTRA_POSITION,
getAdapterPosition());
                context.startActivity(intent);
            }
        });
    }
    public static class ContentAdapter extends
RecyclerView.Adapter<ViewHolder>{
        private static final int LENGTH = 18;
        private final String[] mPlaces;
        private final Drawable[] mPlacePictures;
        public ContentAdapter(Context context) {
            Resources resources = context.getResources();
            mPlaces = resources.getStringArray(R.array.places);
            TypedArray a = resources.obtainTypedArray(R.array.places_picture);
            mPlacePictures = new Drawable[a.length()];
            for (int i = 0; i < mPlacePictures.length; i++) {
                mPlacePictures[i] = a.getDrawable(i);
            }
            a.recycle();
        }
        @Override
        public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
            return new ViewHolder(LayoutInflater.from(parent.getContext()),
parent);
        }
        @Override
        public void onBindViewHolder(ViewHolder holder, int position) {
            holder.picture.setImageDrawable(mPlacePictures[position %
mPlacePictures.length]);
        }
    }
}

```

```

        holder.name.setText(mPlaces[position % mPlaces.length]);
    }
    @Override
    public int getItemCount() {
        return LENGTH;
    }
}

```

Disini terlihat dua inner class yaitu ViewHolder dan ContentAdapter.

Lakukan hal serupa untuk 2 Fragment Lainnya

**item\_list.xml**

```

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

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    xmlns:tools="http://schemas.android.com/tools"
    android:background="?android:attr/selectableItemBackground"
    android:padding="@dimen/md_keylines">
    <ImageView
        android:id="@+id/list_avatar"
        android:layout_width="@dimen/avatar_size"
        android:layout_height="@dimen/avatar_size"
        android:scaleType="centerCrop"
        tools:src="@drawable/a_avatar" />
    <TextView
        android:id="@+id/list_title"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="@dimen/md_keylines"
        android:layout_toRightOf="@+id/list_avatar"
        tools:text="@string/item_title"
        android:textAppearance="?attr/textAppearanceListItem"
        android:textSize="@dimen/article_subheading" />
    <TextView
        android:id="@+id/list_desc"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/list_title"
        android:layout_marginLeft="@dimen/md_keylines"
        android:layout_toRightOf="@+id/list_avatar"
        android:textColor="@color/medium_grey"
        android:ellipsize="end"
        android:singleLine="true"
        tools:text="@string/item_desc"
        android:textAppearance="?attr/textAppearanceListItem"
        android:textSize="@dimen/list_body" />
</RelativeLayout>

```

**ListContentFragment.java**

```

package net.agusharyanto.learnmaterialdesign;
import android.content.Context;
import android.content.res.Resources;
import android.content.res.TypedArray;
import android.graphics.drawable.Drawable;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.widget.GridLayoutManager;
import android.support.v7.widget.RecyclerView;
import android.view.LayoutInflater;

```

```

import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
public class ListContentFragment extends Fragment {
    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                           Bundle savedInstanceState) {
        RecyclerView recyclerView = (RecyclerView) inflater.inflate(
                R.layout.recycler_view, container, false);
        ContentAdapter adapter = new ContentAdapter(recyclerView.getContext());
        recyclerView.setAdapter(adapter);
        recyclerView.setHasFixedSize(true);
        // Set padding for Tiles (not needed for Cards/Lists!)
        int tilePadding =
getResources().getDimensionPixelSize(R.dimen.tile_padding);
        recyclerView.setPadding(tilePadding, tilePadding, tilePadding,
tilePadding);
        recyclerView.setLayoutManager(new GridLayoutManager(getActivity(), 2));
        return recyclerView;
    }
    public static class ViewHolder extends RecyclerView.ViewHolder{
        public ImageView avatar;
        public TextView name;
        public TextView description;
        public ViewHolder(LayoutInflater inflater, ViewGroup parent) {
            super(inflater.inflate(R.layout.item_list, parent, false));
            avatar = (ImageView) itemView.findViewById(R.id.list_avatar);
            name = (TextView) itemView.findViewById(R.id.list_title);
            description = (TextView) itemView.findViewById(R.id.list_desc);
        }
    }
    public static class ContentAdapter extends
RecyclerView.Adapter<ViewHolder>{
        private static final int LENGTH = 18;
        private final String[] mPlaces;
        private final String[] mPlaceDesc;
        private final Drawable[] mPlaceAvatars;
        public ContentAdapter(Context context) {
            Resources resources = context.getResources();
            mPlaces = resources.getStringArray(R.array.places);
            mPlaceDesc = resources.getStringArray(R.array.place_desc);
            TypedArray a = resources.obtainTypedArray(R.array.place_avatar);
            mPlaceAvatars = new Drawable[a.length()];
            for (int i = 0; i < mPlaceAvatars.length; i++) {
                mPlaceAvatars[i] = a.getDrawable(i);
            }
            a.recycle();
        }
        @Override
        public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
            return new
ViewHolder(LayoutInflater.from(parent.getContext()),parent);
        }
        @Override
        public void onBindViewHolder(ViewHolder holder, int position) {
            holder.avatar.setImageDrawable(mPlaceAvatars[position %
mPlaceAvatars.length]);
        }
    }
}

```

```

        holder.name.setText(mPlaces[position % mPlaces.length]);
        holder.description.setText(mPlaceDesc[position %
mPlaceDesc.length]);
    }
    @Override
    public int getItemCount() {
        return LENGTH;
    }
}
}

```

### item\_card.xml

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.v7.widget.CardView
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/card_view"
    android:layout_width="match_parent"
    android:layout_height="@dimen/card_height"
    android:layout_gravity="center"
    android:layout_marginBottom="@dimen/md_keylines"
    android:layout_marginLeft="@dimen/md_keylines"
    android:layout_marginRight="@dimen/md_keylines"
    android:foreground="?attr/selectableItemBackground">
    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <ImageView
            android:id="@+id/card_image"
            android:layout_width="match_parent"
            android:layout_height="@dimen/card_image_height"
            android:scaleType="centerCrop"
            tools:src="@drawable/a" />
        <TextView
            android:id="@+id/card_title"
            android:layout_width="match_parent"
            android:layout_height="@dimen/card_title_height"
            android:layout_alignBottom="@+id/card_image"
            android:layout_marginLeft="@dimen/md_keylines"
            tools:text="@string/item_title"
            android:textAppearance="@style/TextAppearance.AppCompat.Title"
            android:textColor="@color/white" />
        <TextView
            android:id="@+id/card_text"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_below="@+id/card_image"
            android:layout_marginLeft="@dimen/md_keylines"
            android:layout_marginTop="@dimen/md_keylines"
            android:layout_marginBottom="@dimen/md_keylines"
            android:layout_marginRight="@dimen/md_keylines"
            tools:text="@string/item_desc"
            android:ellipsize="end"
            android:singleLine="true"
            android:textColor="@color/dark_grey" />
    
```

```

        android:textSize="@dimen/article_subheading" />
<Button
    android:id="@+id/action_button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/card_text"
    style="?android:attr/borderlessButtonStyle"
    android:textColor="?attr/colorPrimary"
    android:text="Action" />
</RelativeLayout>
</android.support.v7.widget.CardView>
```

### CardContentFragment.java

```

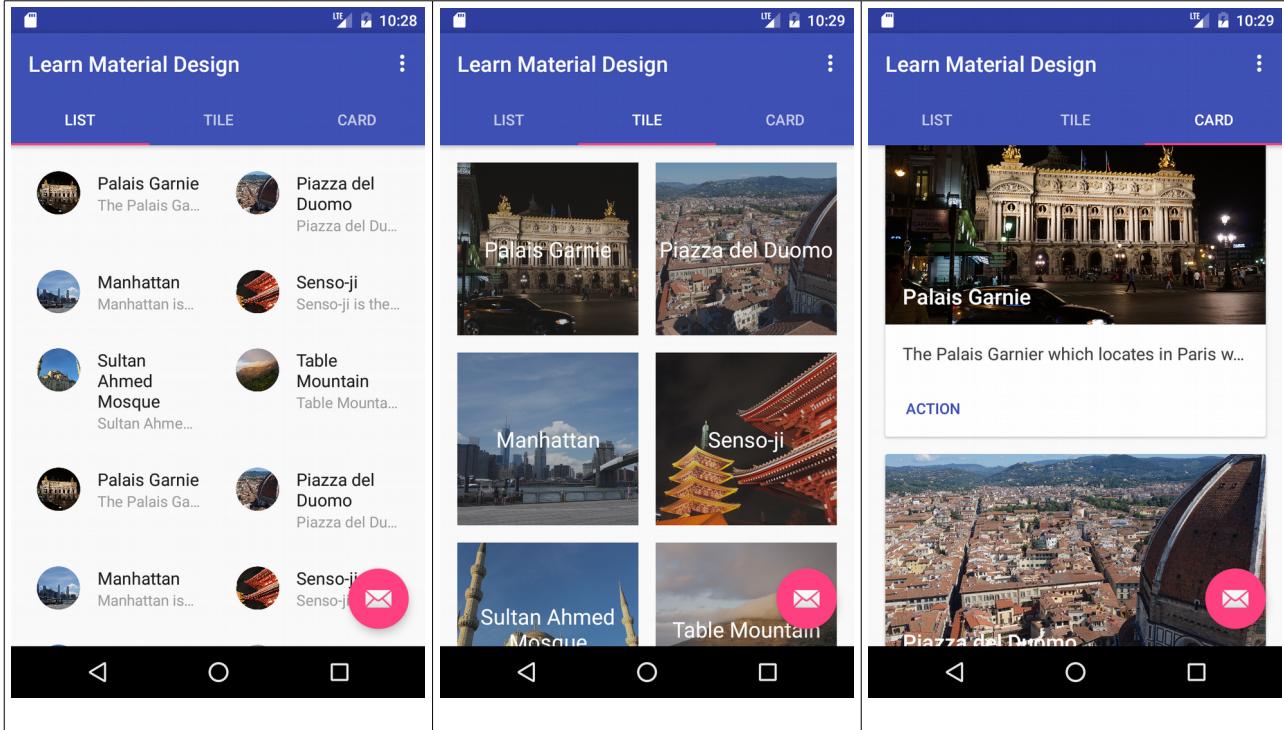
package net.agusharyanto.learnmaterialdesign;
import android.content.Context;
import android.content.Intent;
import android.content.res.Resources;
import android.content.res.TypedArray;
import android.graphics.drawable.Drawable;
import android.os.Bundle;
import android.support.v4.app.Fragment;
import android.support.v7.widget.LinearLayoutManager;
import android.support.v7.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
public class CardContentFragment extends Fragment {
    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                           Bundle savedInstanceState) {
        RecyclerView recyclerView = (RecyclerView) inflater.inflate(
            R.layout.recycler_view, container, false);
        ContentAdapter adapter = new ContentAdapter(recyclerView.getContext());
        recyclerView.setAdapter(adapter);
        recyclerView.setHasFixedSize(true);
        recyclerView.setLayoutManager(new LinearLayoutManager(getActivity()));
        return recyclerView;
    }
    public static class ViewHolder extends RecyclerView.ViewHolder{
        public ImageView picture;
        public TextView name;
        public TextView description;
        public ViewHolder(LayoutInflater inflater, ViewGroup parent) {
            super(inflater.inflate(R.layout.item_card, parent, false));
            picture = (ImageView) itemView.findViewById(R.id.card_image);
            name = (TextView) itemView.findViewById(R.id.card_title);
            description = (TextView) itemView.findViewById(R.id.card_text);
        }
    }
    public static class ContentAdapter extends
    RecyclerView.Adapter<ViewHolder>{
        private static final int LENGTH = 18;
        private final String[] mPlaces;
        private final String[] mPlaceDesc;
```

```

private final Drawable[] mPlacePictures;
public ContentAdapter(Context context) {
    Resources resources = context.getResources();
    mPlaces = resources.getStringArray(R.array.places);
    mPlaceDesc = resources.getStringArray(R.array.place_desc);
    TypedArray a = resources.obtainTypedArray(R.array.places_picture);
    mPlacePictures = new Drawable[a.length()];
    for (int i = 0; i < mPlacePictures.length; i++) {
        mPlacePictures[i] = a.getDrawable(i);
    }
    a.recycle();
}
@Override
public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
    return new ViewHolder(LayoutInflater.from(parent.getContext()),
parent);
}
@Override
public void onBindViewHolder(ViewHolder holder, int position) {
    holder.picture.setImageDrawable(mPlacePictures[position % mPlacePictures.length]);
    holder.name.setText(mPlaces[position % mPlaces.length]);
    holder.description.setText(mPlaceDesc[position % mPlaceDesc.length]);
}
@Override
public int getItemCount() {
    return LENGTH;
}
}
}

```

## Run Projectnya



Wow awesome keren banget yah RecyclerViewnya.

## 6. Using Vector assets for images

Pada langkah ini kita belajar menggunakan vectordrawable dengan menggunakan support-vector-drawable. Kita dapat gunakan VectorDrawableCompat untuk support device API 7. dengan vector assets aplikasi hanya membutuhkan satu vector assets untuk multiple device screen.

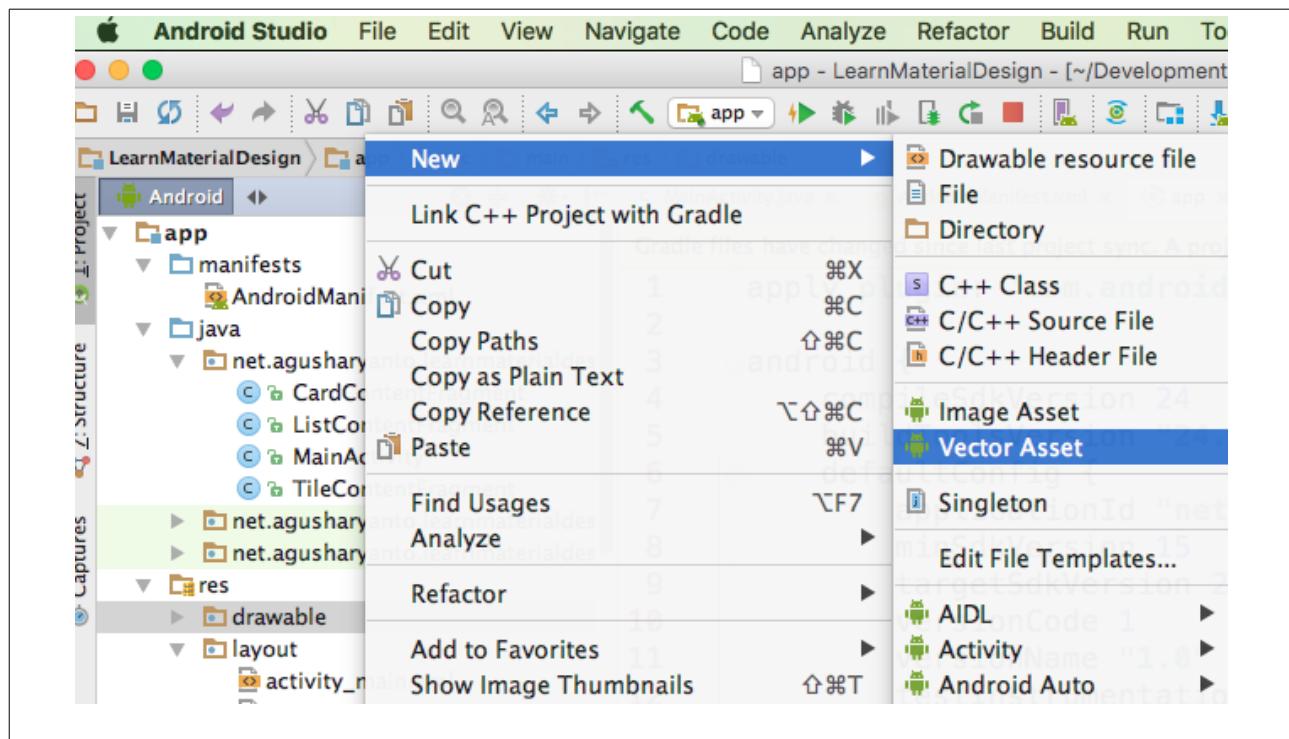
Tambahkan config pada file gradle tambahkan atribut berikut.

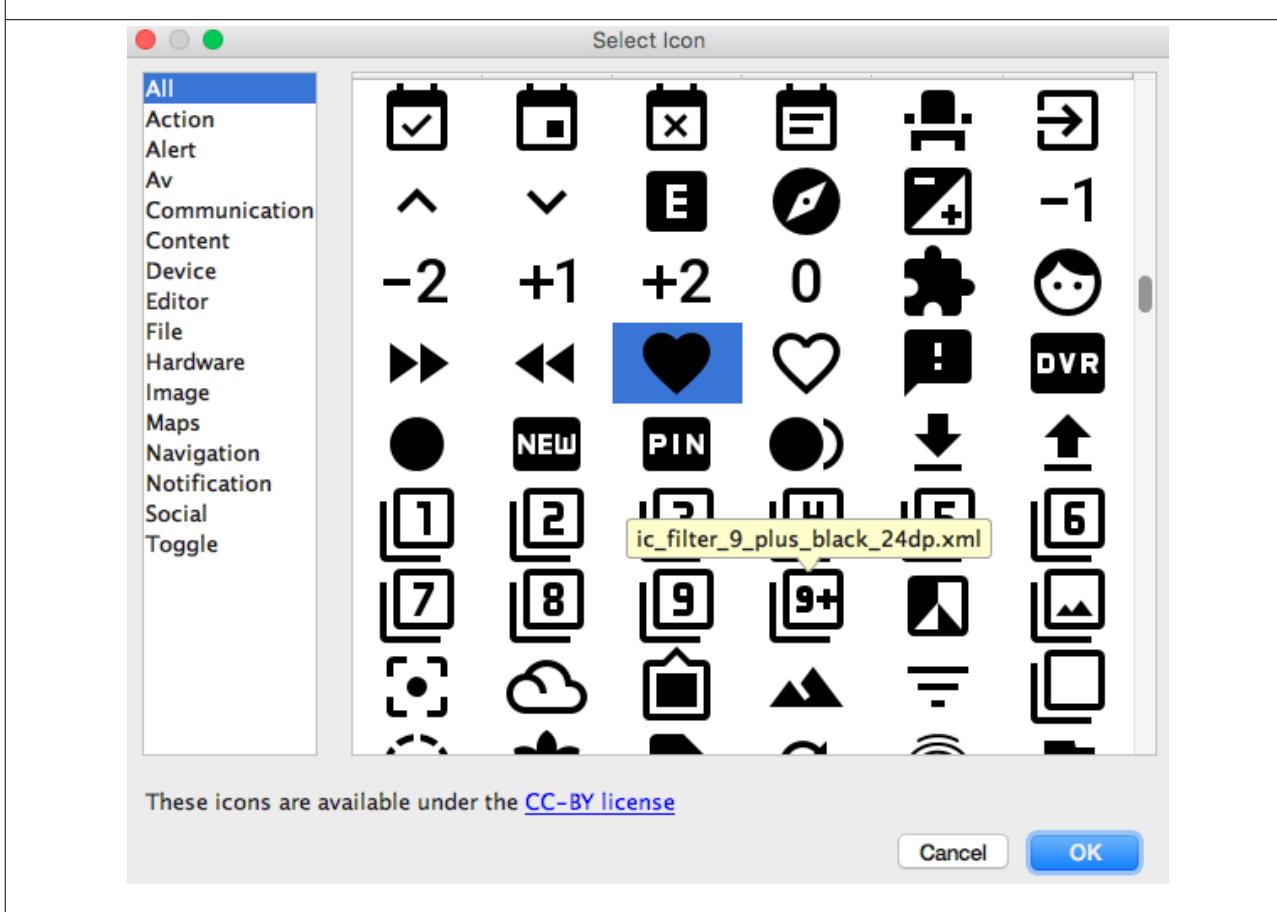
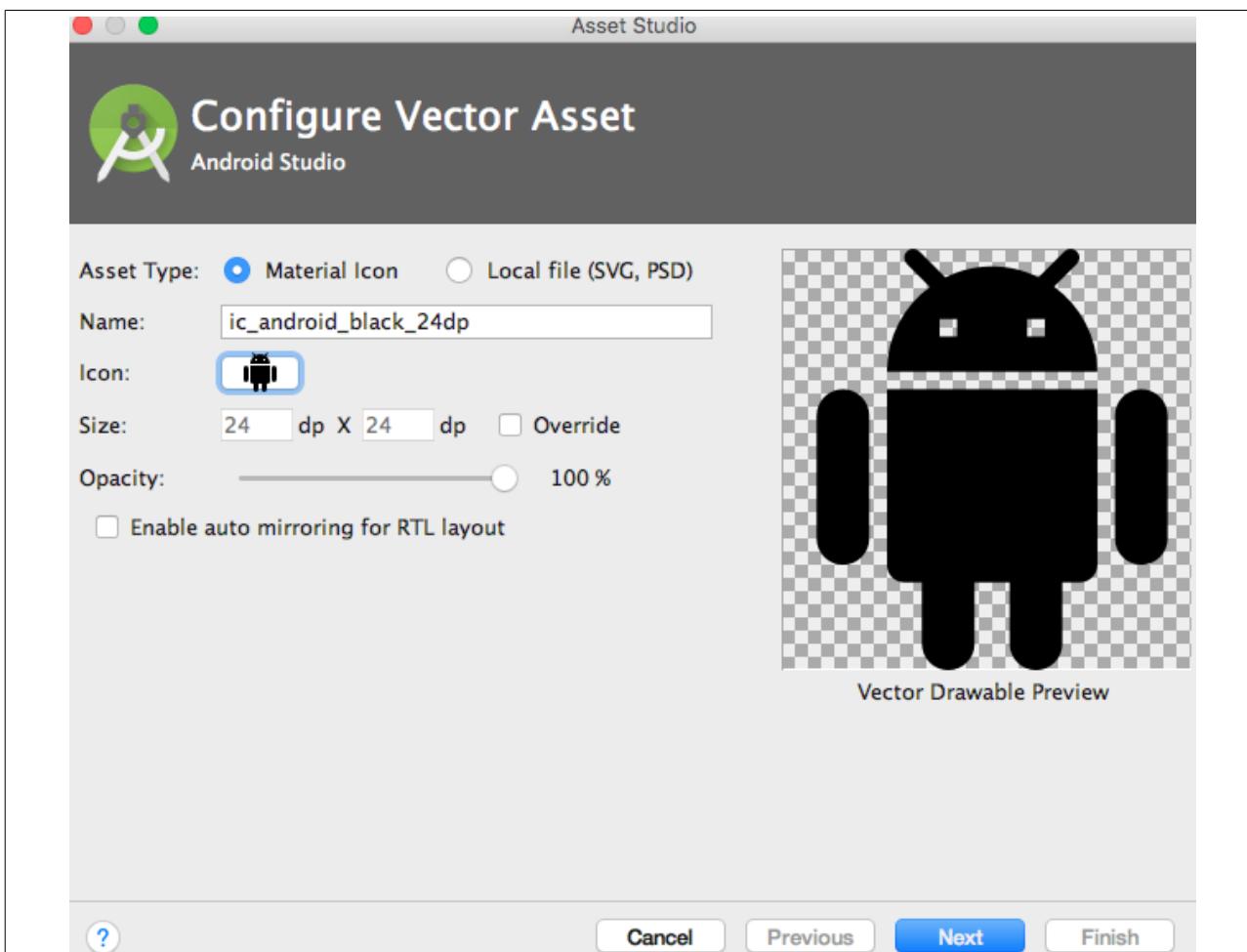
### **build.gradle (module:app)**

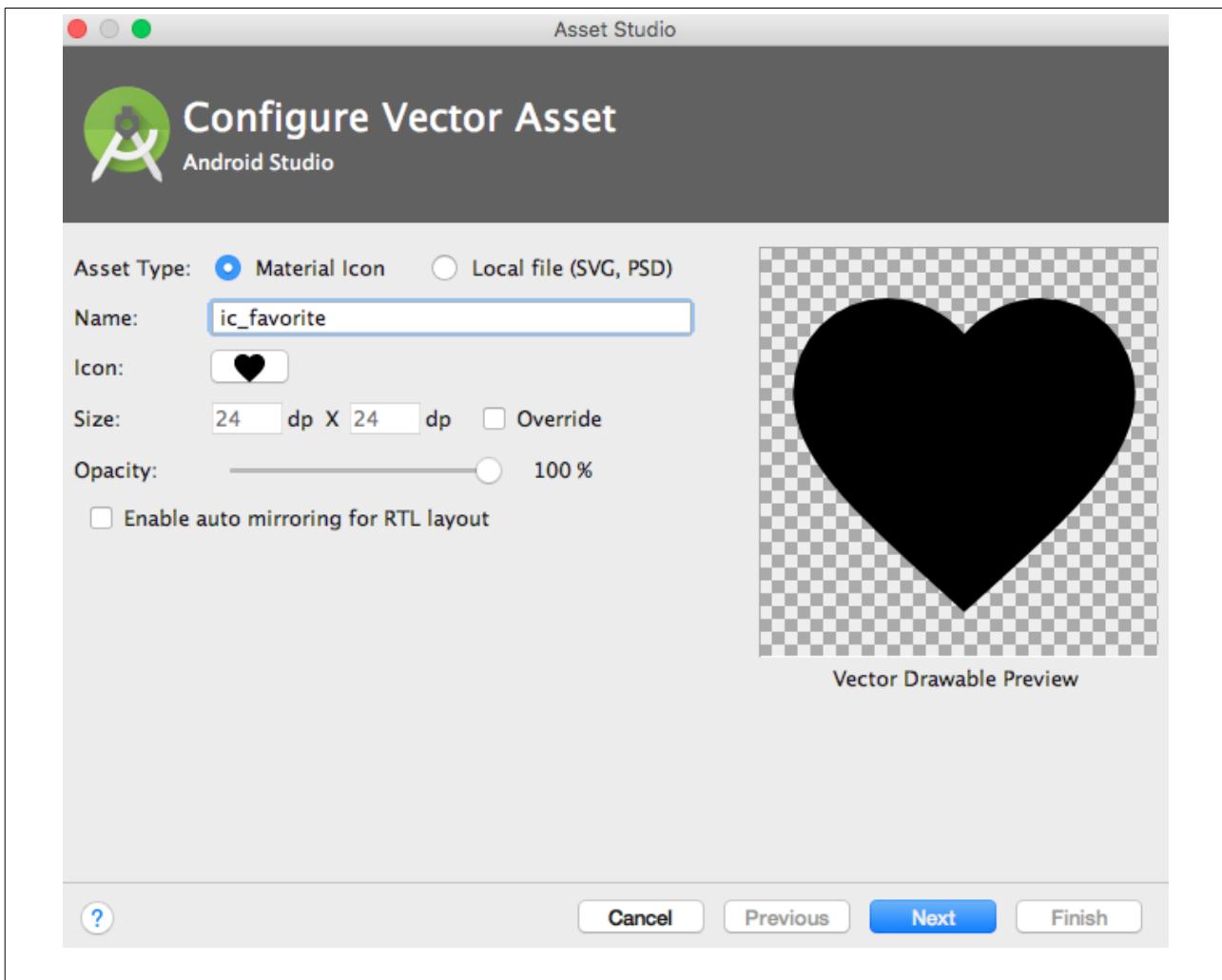
```
defaultConfig {  
    vectorDrawables.useSupportLibrary = true  
}
```

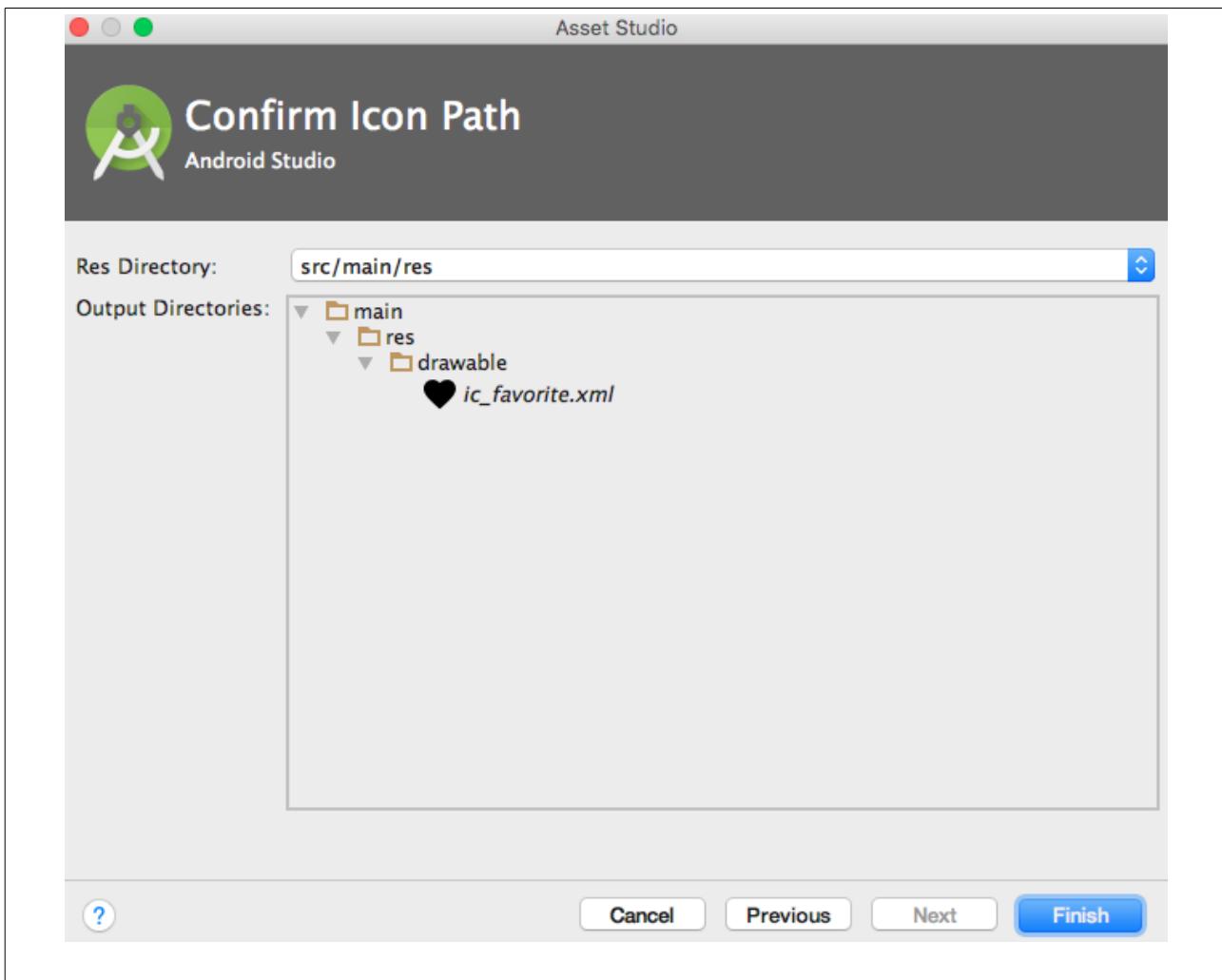
## Import Vector Assets to Android Studio

To import vector assets to Android Studio bisa dengan klik kanan folder drawable lalu pilih New → VectorAsset







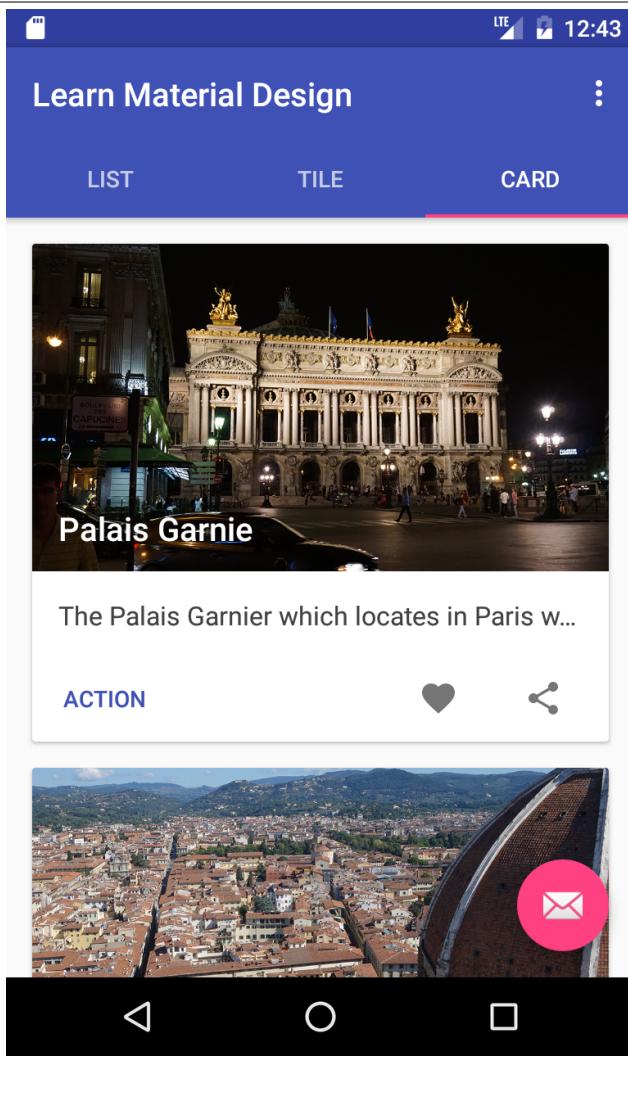


Lakukan hal serupa untuk buat vector ic\_share

Setelah selesai edit item\_card.xml tambahkan dua image button tempatkan setelah button  
**action\_button**

```
<ImageButton
    android:id="@+id/share_button"
    android:layout_width="@dimen/cards_button_width"
    android:layout_height="@dimen/cards_button_height"
    android:layout_marginRight="@dimen/md_keylines"
    app:srcCompat="@drawable/ic_share"
    android:layout_below="@+id/card_text"
    android:layout_alignParentRight="true"
    style="?android:attr/borderlessButtonStyle"
    android:tint="@color/button_grey" />
<ImageButton
    android:id="@+id/favorite_button"
    android:layout_width="@dimen/cards_button_width"
    android:layout_height="@dimen/cards_button_height"
    android:layout_marginRight="@dimen/md_keylines"
    app:srcCompat="@drawable/ic_favorite"
    android:layout_below="@+id/card_text"
    android:layout_toLeftOf="@+id/share_button"
    style="?android:attr/borderlessButtonStyle"
    android:tint="@color/button_grey" />
```

Run project, arahkan pada Tab Card



## Menambahkan Navigation Drawer

Navigation Drawer yang ada disebelah kiri adalah salah satu standar navigasi aplikasi google dan mengikuti keylines dan metrics untuk listnya.

1. Buat file **menu\_navigation.xml** pada directory res/menu untuk item navigasinya.

```
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <group android:checkableBehavior="single">
        <item
            android:icon="@drawable/ic_home_black_24dp"
            android:tint="@color/button_grey"
            android:title="One" />
        <item
            android:icon="@drawable/ic_favorite_black_24dp"
            android:tint="@color/button_grey"
            android:title="Two" />
        <item
            android:icon="@drawable/ic_bookmark_border_black_24dp"
            android:tint="@color/button_grey"
```

```
        android:title="Three" />
    </group>
</menu>
```

2. Buat **navheader.xml** definisikan material Navigation Drawer pada directory **res/layout**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="@dimen/navheader_height"
    android:background="?attr/colorPrimaryDark"
    android:orientation="vertical"
    android:padding="@dimen/md_keylines">
</LinearLayout>
```

3. pada **activity\_main.xml**.

- bungkus semua component dengan sebuah **DrawerLayout** yang mengenable intraactive drawer view jadi ditarik keluar dari tepi layar.

```
<android.support.v4.widget.DrawerLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:app="http://schemas.android.com/apk/res-auto"
        android:id="@+id/drawer"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:fitsSystemWindows="true">
```

- tambahkan **Navigation View** code diatas. Diluar **coordinator\_layout** tetapi masih didalam **DrawerLayout**

```
<android.support.design.widget.NavigationView
    android:id="@+id/nav_view"
    android:layout_width="wrap_content"
    android:layout_height="match_parent"
    android:layout_gravity="start"
    android:fitsSystemWindows="true"
    app:headerLayout="@layout/navheader"
    app:menu="@menu/menu_navigation" />
```

Lebih lengkapnya **activity\_main.xml** menjadi seperti ini.

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.v4.widget.DrawerLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:app="http://schemas.android.com/apk/res-auto"
        android:id="@+id/drawer"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:fitsSystemWindows="true">
    <android.support.design.widget.CoordinatorLayout
        xmlns:android="http://schemas.android.com/apk/res/android"
            xmlns:app="http://schemas.android.com/apk/res-auto"
```

```

xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:context="net.agusharyanto.learnmaterialdesign.MainActivity">
<android.support.design.widget.AppBarLayout>
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    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" />
    <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/viewpager"
    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="bottom|end"
    android:layout_margin="@dimen/fab_margin"
    app:srcCompat="@android:drawable/ic_dialog_email" />
</android.support.design.widget.CoordinatorLayout>
<android.support.design.widget.NavigationView
    android:id="@+id/nav_view"
    android:layout_width="wrap_content"
    android:layout_height="match_parent"
    android:layout_gravity="start"
    android:fitsSystemWindows="true"
    app:headerLayout="@layout/navheader"
    app:menu="@menu/menu_navigation" />
</android.support.v4.widget.DrawerLayout>

```

#### 4. Pada MainActivity.java

- Tambahkan instance variable pada bagian atas MainActivity

```
private DrawerLayout mDrawerLayout;
```

- tambahkan kode berikut pada method onCreate untuk mengeset Navigation Drawer.

```

// Create Navigation drawer and inflate layout
    NavigationView navigationView = (NavigationView) findViewById(R.id.nav_view);
    mDrawerLayout = (DrawerLayout) findViewById(R.id.drawer);
// Adding menu icon to Toolbar
    ActionBar supportActionBar = getSupportActionBar();

```

```

if (supportActionBar != null) {
    supportActionBar.setHomeAsUpIndicator(R.drawable.ic_menu_white_24dp);
    supportActionBar.setDisplayHomeAsUpEnabled(true);
}

// Set behavior of Navigation drawer
navigationView.setNavigationItemSelectedListener(
    new NavigationView.OnNavigationItemSelectedListener() {
        // This method will trigger on item Click of navigation menu
        @Override
        public boolean onNavigationItemSelected(MenuItem menuItem) {
            // Set item in checked state
            menuItem.setChecked(true);
            // TODO: handle navigation
            // Closing drawer on item click
            mDrawerLayout.closeDrawers();
            return true;
        }
    });

```

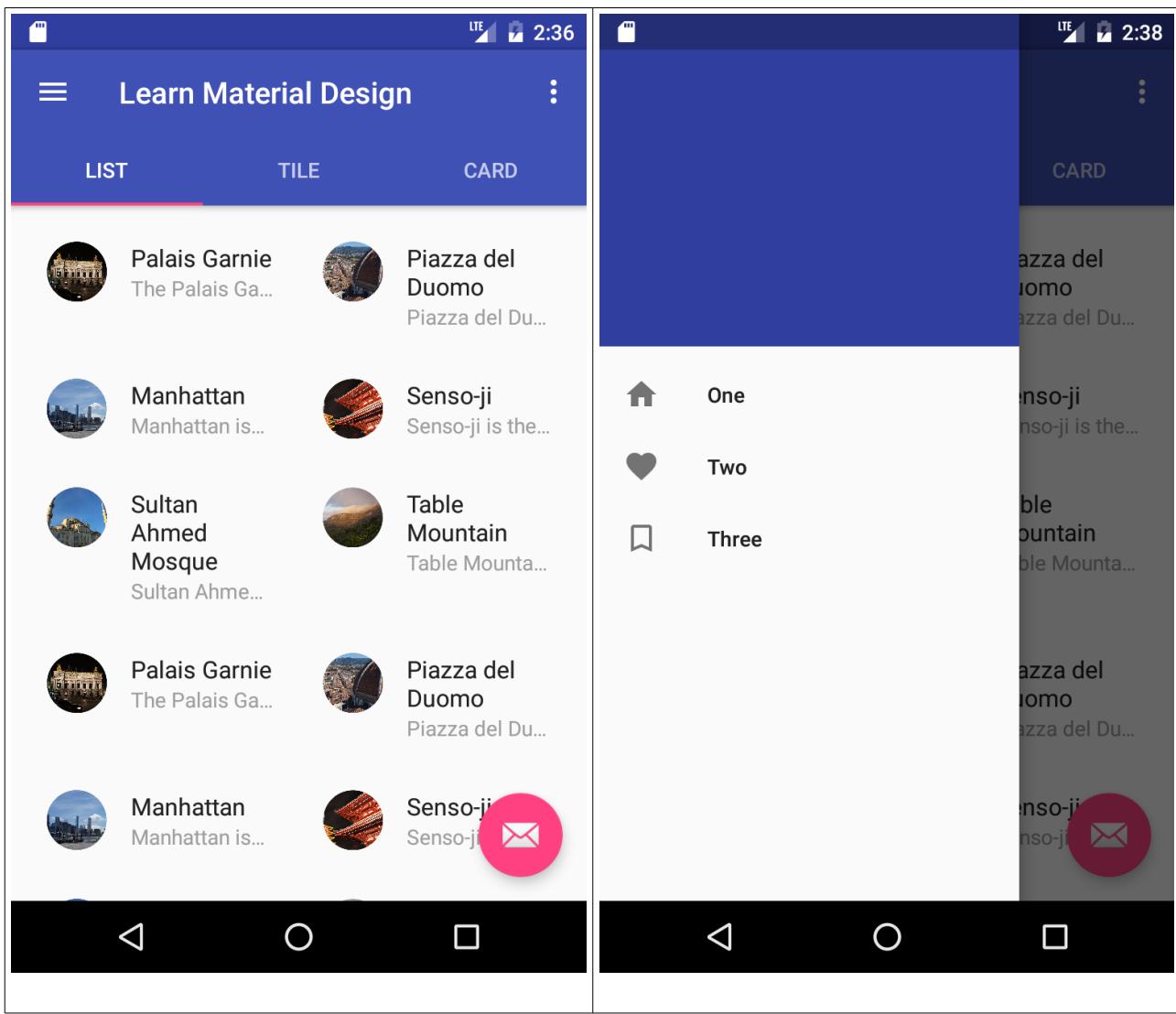
- Tambahkan mDrawerLayout.openDrawer(GravityCompat.START) pada method onOptionsItemSelected.

```

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();
    //noinspection SimplifiableIfStatement
    if (id == R.id.action_settings) {
        return true;
    } else if (id == android.R.id.home) {
        mDrawerLayout.openDrawer(GravityCompat.START);
    }
    return super.onOptionsItemSelected(item);
}

```

5. Run Projectnya.



## 7. Detail View dengan colapsing Layout

Buat Detak View.OnClickListener

Gunakan Intent untuk mengijinkan user berpindah dari cards ke detail views. Mari kita buat detail view di app kita.

1. Buat Activity baru (basic activiy) dengan nama DetailActivity lalu ketikan

**activity\_detail.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<!--
~ Copyright (C) 2015 The Android Open Source Project
~
~ Licensed under the Apache License, Version 2.0 (the "License");
~ you may not use this file except in compliance with the License.
~ You may obtain a copy of the License at
~
~     http://www.apache.org/licenses/LICENSE-2.0
~
~ Unless required by applicable law or agreed to in writing, software
~ distributed under the License is distributed on an "AS IS" BASIS,
~ WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
~ See the License for the specific language governing permissions and
```

```
~ limitations under the License.  
-->  
<android.support.design.widget.CoordinatorLayout  
    xmlns:android="http://schemas.android.com/apk/res/android"  
        xmlns:app="http://schemas.android.com/apk/res-auto"  
        xmlns:tools="http://schemas.android.com/tools"  
        android:id="@+id/detail_content"  
        android:layout_width="match_parent"  
        android:layout_height="match_parent"  
        android:fitsSystemWindows="true">  
    <android.support.design.widget.AppBarLayout  
        android:id="@+id/appbar"  
        android:layout_width="match_parent"  
        android:layout_height="@dimen/app_bar_height"  
        android:fitsSystemWindows="true"  
        android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar">  
        <android.support.design.widget.CollapsingToolbarLayout  
            android:id="@+id/collapsing_toolbar"  
            android:layout_width="match_parent"  
            android:layout_height="match_parent"  
            android:fitsSystemWindows="true"  
            android:theme="@style/ThemeOverlay.AppCompat.Dark"  
            app:contentScrim="?attr/colorPrimary"  
            app:expandedTitleMarginEnd="@dimen/article_keylines"  
            app:expandedTitleMarginStart="@dimen/md_keylines"  
            app:layout_scrollFlags="scroll|exitUntilCollapsed">  
            <ImageView  
                android:id="@+id/image"  
                android:layout_width="match_parent"  
                android:layout_height="match_parent"  
                tools:background="@drawable/a"  
                android:fitsSystemWindows="true"  
                android:scaleType="centerCrop"  
                app:layout_collapseMode="parallax" />  
            <android.support.v7.widget.Toolbar  
                android:id="@+id/toolbar"  
                android:layout_width="match_parent"  
                android:layout_height="?attr/actionBarSize"  
                app:layout_collapseMode="pin"  
                app:popupTheme="@style/ThemeOverlay.AppCompat.Light" />  
        </android.support.design.widget.CollapsingToolbarLayout>  
    </android.support.design.widget.AppBarLayout>  
    <android.support.v4.widget.NestedScrollView  
        android:layout_width="match_parent"  
        android:layout_height="match_parent"  
        app:layout_behavior="@string/appbar_scrolling_view_behavior">  
        <LinearLayout  
            android:layout_width="match_parent"  
            android:layout_height="match_parent"  
            android:orientation="vertical"  
            android:paddingLeft="@dimen/article_keylines"  
            android:paddingRight="@dimen/md_keylines"  
            android:paddingTop="@dimen/md_keylines">  
            <TextView  
                android:layout_width="match_parent"  
                android:layout_height="wrap_content"  
                android:textColor="?attr/colorAccent"  
                android:text="Description"
```

```

        android:textSize="@dimen/article_titles"
        android:layout_marginBottom="@dimen/md_keylines" />
    <TextView
        android:id="@+id/place_detail"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        tools:text="@string/detail_desc" />
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textColor="?attr/colorAccent"
        android:text="Location"
        android:textSize="@dimen/article_titles"
        android:layout_marginBottom="@dimen/md_keylines"
        android:layout_marginTop="@dimen/md_keylines" />
    <TextView
        android:id="@+id/place_location"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        tools:text="@string/detail_location" />
</LinearLayout>
</android.support.v4.widget.NestedScrollView>
</android.support.design.widget.CoordinatorLayout>

```

## DetailActivity.java

```

package net.agusharyanto.learnmaterialdesign;
import android.content.res.Resources;
import android.content.res.TypedArray;
import android.support.design.widget.CollapsingToolbarLayout;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.Toolbar;
import android.widget.ImageView;
import android.widget.TextView;
public class DetailActivity extends AppCompatActivity {
    public static final String EXTRA_POSITION = "position";
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_detail);
        setSupportActionBar(findViewById(R.id.toolbar));
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        // Set Collapsing Toolbar layout to the screen
        CollapsingToolbarLayout collapsingToolbar =
            (CollapsingToolbarLayout)
        findViewById(R.id.collapsing_toolbar);
        // Set title of Detail page
        // collapsingToolbar.setTitle(getString(R.string.item_title));
        int position = getIntent().getIntExtra(EXTRA_POSITION, 0);
        Resources resources = getResources();
        String[] places = resources.getStringArray(R.array.places);
        collapsingToolbar.setTitle(places[position % places.length]);
        String[] placeDetails =
resources.getStringArray(R.array.place_details);
        TextView placeDetail = (TextView) findViewById(R.id.place_detail);
        placeDetail.setText(placeDetails[position % placeDetails.length]);
    }
}

```

```

        String[] placeLocations =
resources.getStringArray(R.array.place_locations);
        TextView placeLocation = (TextView) findViewById(R.id.place_location);
        placeLocation.setText(placeLocations[postion % placeLocations.length]);
        TypedArray placePictures =
resources.obtainTypedArray(R.array.places_picture);
        ImageView placePicutre = (ImageView) findViewById(R.id.image);
        placePicutre.setImageDrawable(placePictures.getDrawable(postion %
placePictures.length()));
        placePictures.recycle();
    }
}

```

3. Buat sebuah Intent untuk masing-masing fragment ListContentFragment.java, TileContentFragment.java, dan CardContentFragment.java dengan demikin setiap item punya link ke detailed view. Tambahkan pada constructor ViewHolder

```

itemView.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Context context = v.getContext();
        Intent intent = new Intent(context, DetailActivity.class);
        intent.putExtra(DetailActivity.EXTRA_POSITION, getAdapterPosition());
        context.startActivity(intent);
    }
});

```

4. Cek AndroidManifest.xml pastikan DetailActivity sudah terdaftar, kalau belum tambahkan

```

<activity
    android:name=".DetailActivity"
    android:parentActivityName=".MainActivity"
    android:theme="@style/AppTheme.NoActionBar">
    <meta-data
        android:name="android.support.PARENT_ACTIVITY"
        android:value=".MainActivity" />
</activity>

```

Switch to a Collapsing Toolbar.

Collapsing Toolbar menyediakan visual transitions dengan mentup toolbar ketika user scroll down untuk melihat informasi selanjutnya. Ini sudah kita tambahkan di layout activity\_detail.xml

Pada DetailActivity juga kita sudah tambahkan kode untuk keperluan CollapsingTollbar.

5. Sekarang mari kita run projectnya.

