

# 02

## 레이아웃 – Linear Layout



## TextView

extends [View](#)

implements [ViewTreeObserver.OnPreDrawListener](#)

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[java.lang.Object](#)  
↳ [android.view.View](#)  
↳ [android.widget.TextView](#)

## Button

extends [TextView](#)

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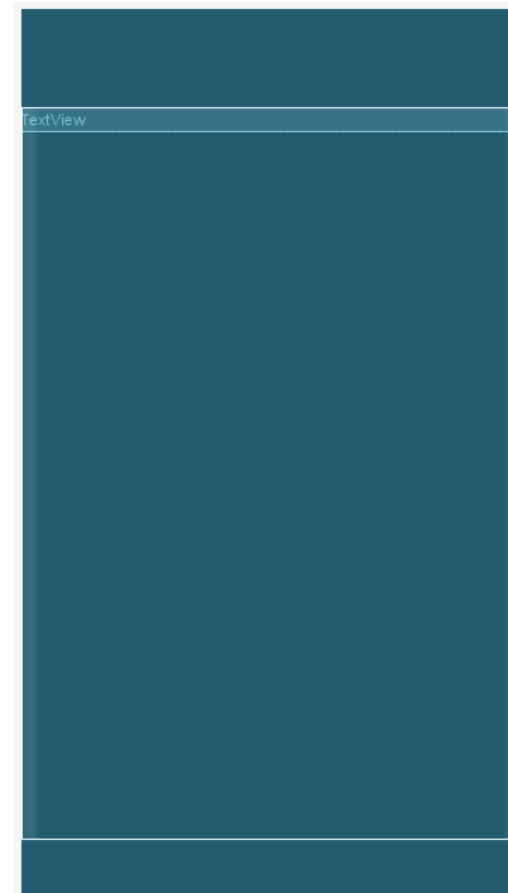
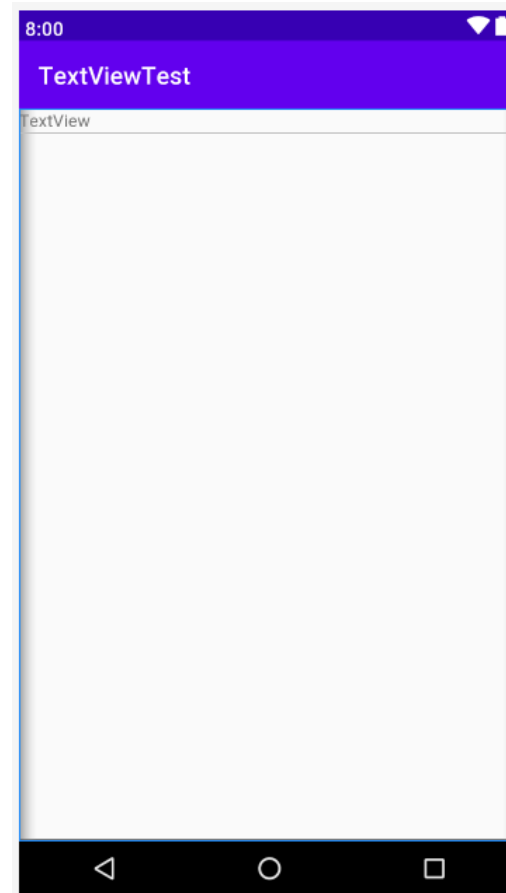
[java.lang.Object](#)  
↳ [android.view.View](#)  
↳ [android.widget.TextView](#)  
↳ [android.widget.Button](#)

## EditText

extends [TextView](#)

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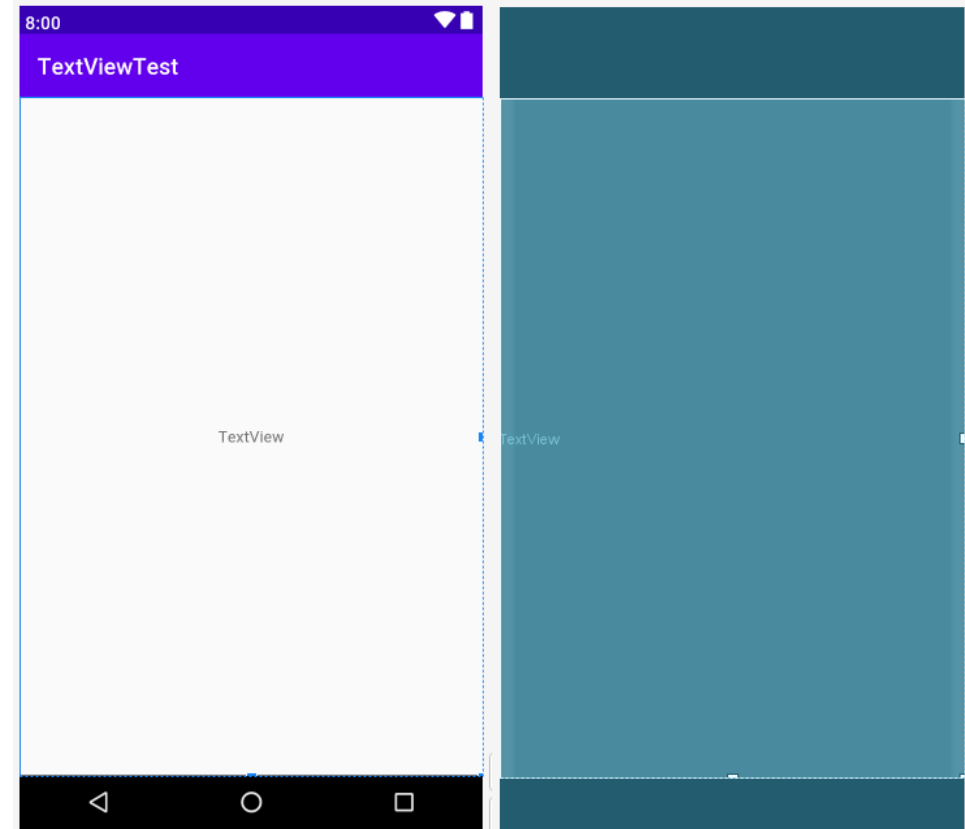
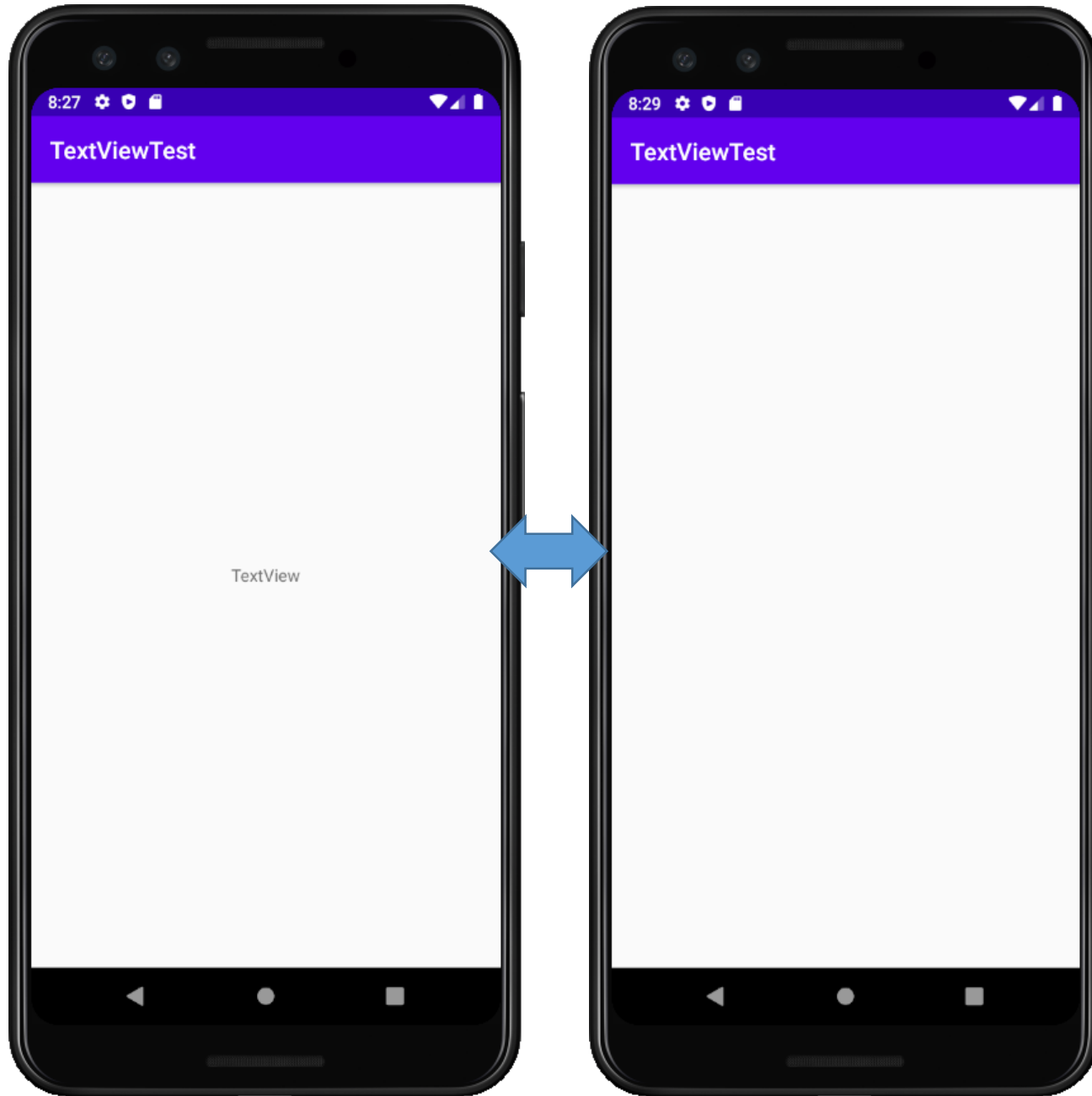
[java.lang.Object](#)  
↳ [android.view.View](#)  
↳ [android.widget.TextView](#)  
↳ [android.widget.EditText](#)



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

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="TextView" />
</LinearLayout>
```

```
public class MainActivity extends AppCompatActivity {  
  
    TextView textView;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        textView = findViewById(R.id.textView);  
        textView.setText("Text is Changed.");  
    }  
}
```



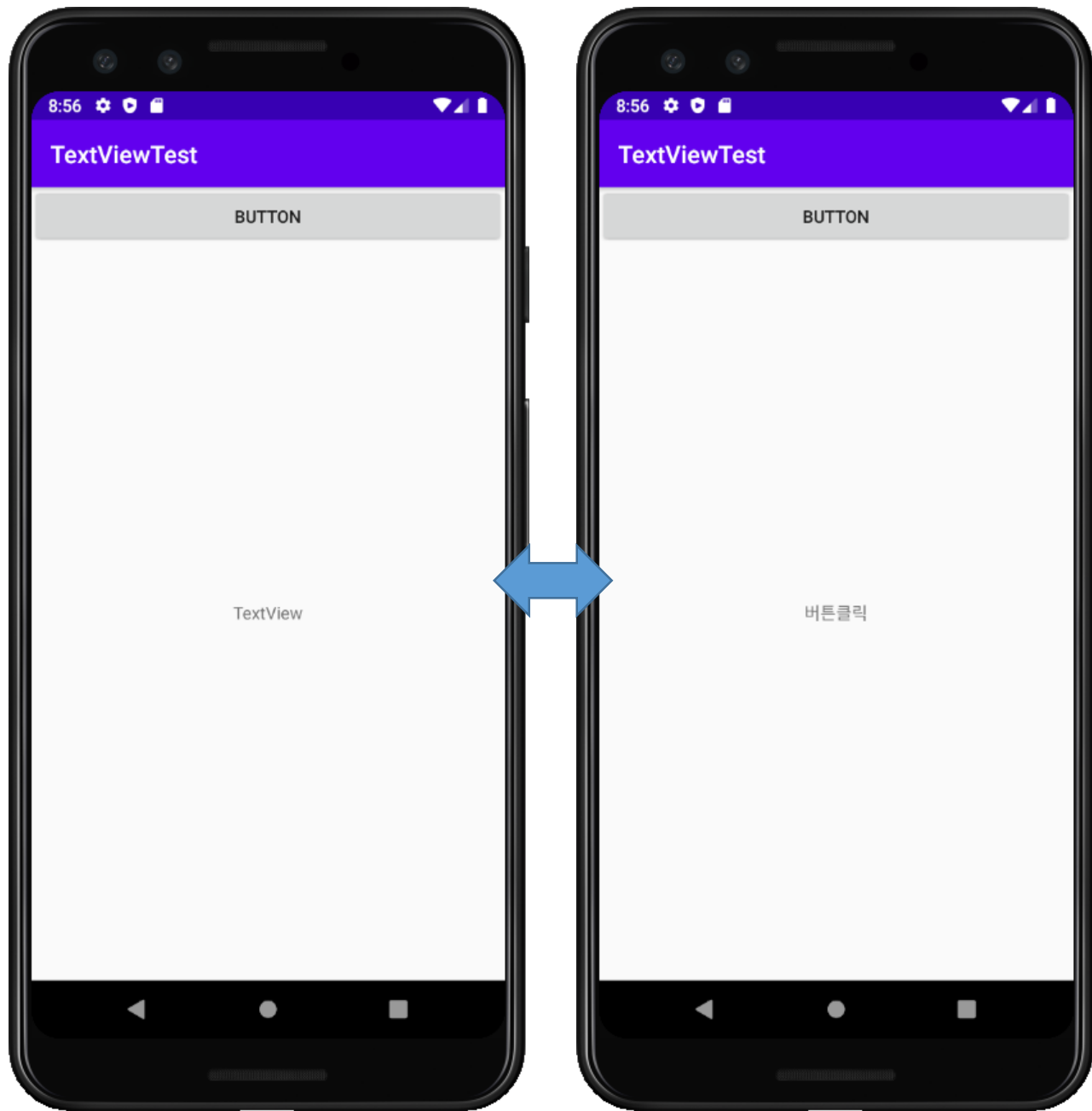
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

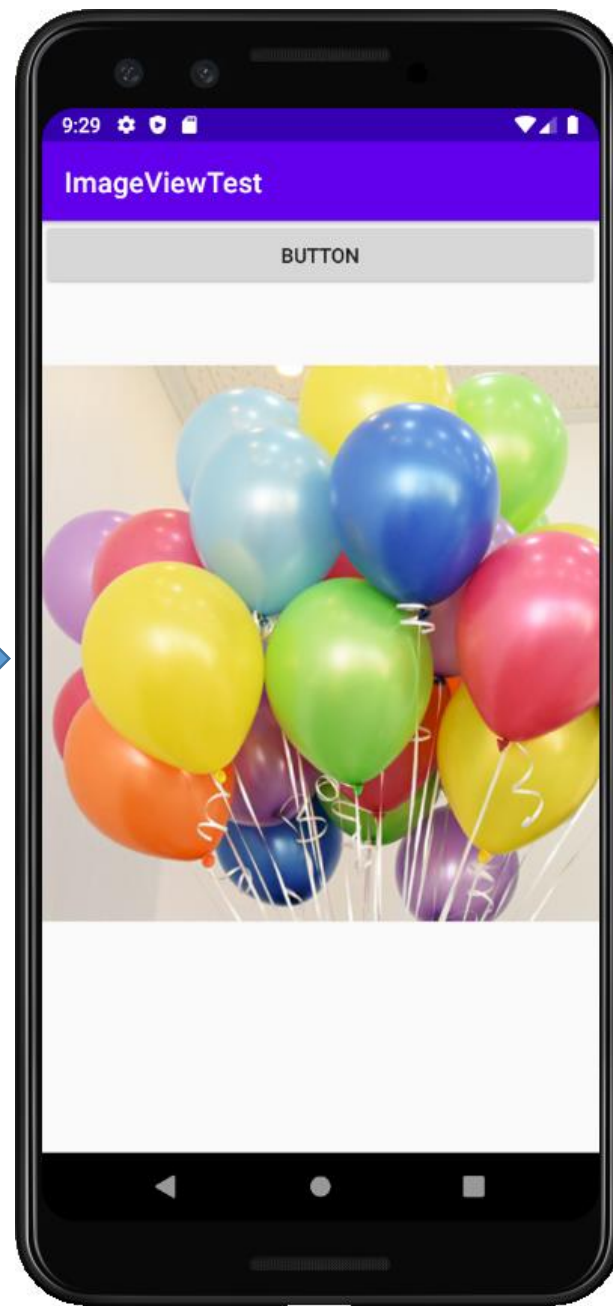
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:gravity="center_horizontal|center_vertical"
        android:text="TextView" />
</LinearLayout>
```

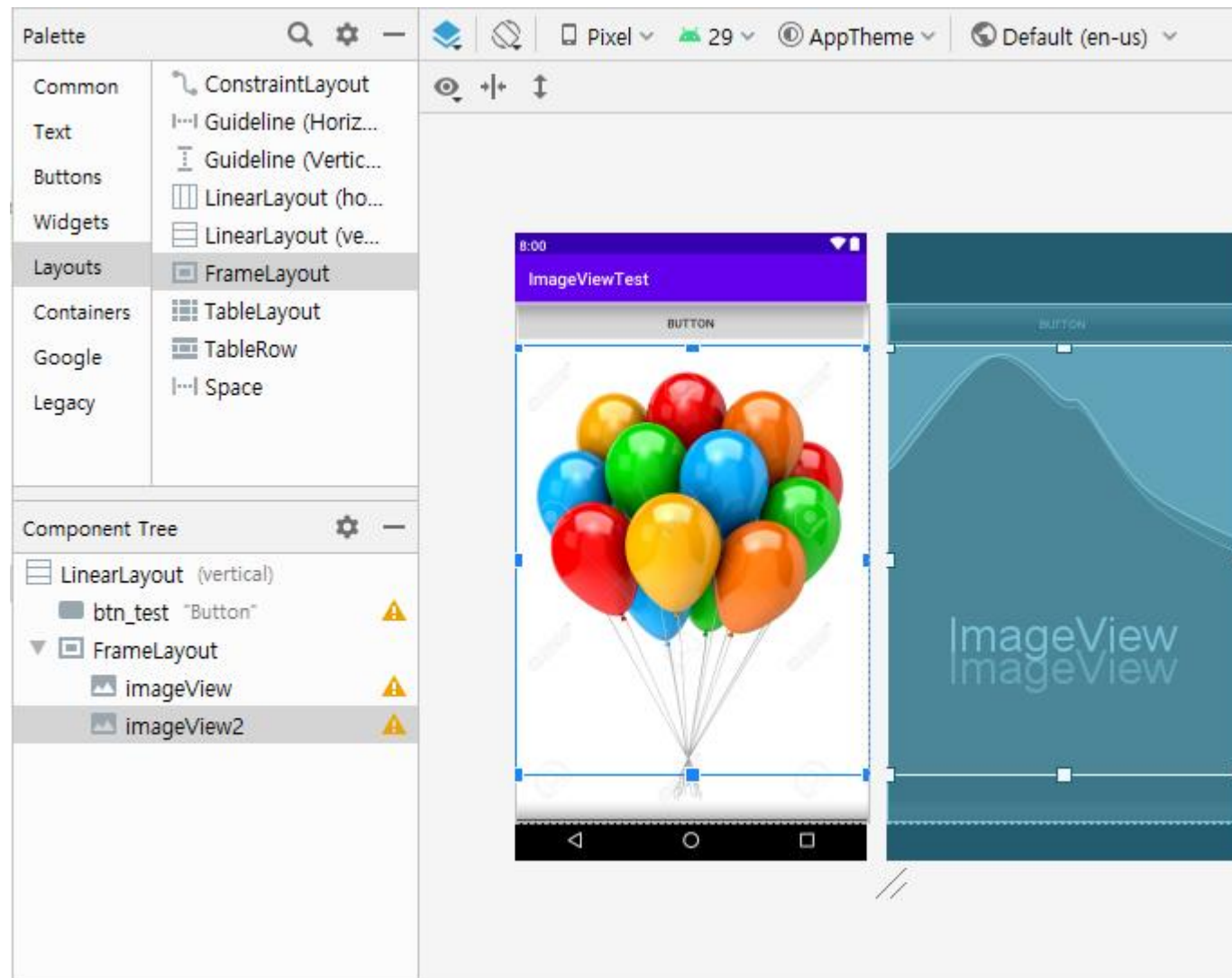
```
public class MainActivity extends AppCompatActivity {  
  
    TextView textView;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        textView = findViewById(R.id.text_view);  
        // textView.setText("Text is Changed.");  
    }  
}
```

```
public class MainActivity extends AppCompatActivity {  
  
    TextView textView;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        textView = findViewById(R.id.text_view);  
        textView.setVisibility(View.INVISIBLE);  
        // textView.setText("Text is Changed.");  
    }  
}
```



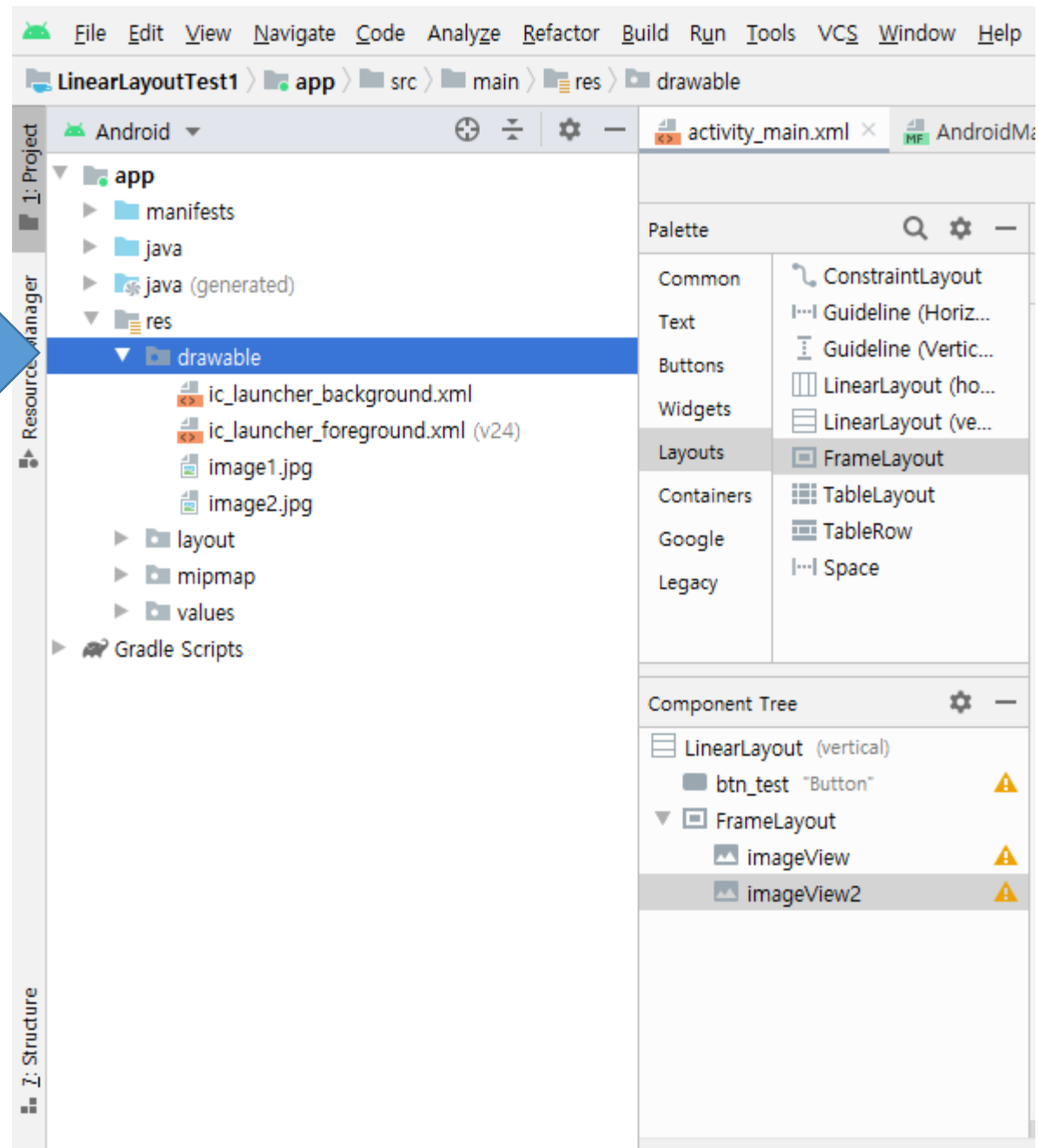
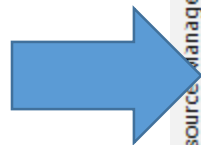




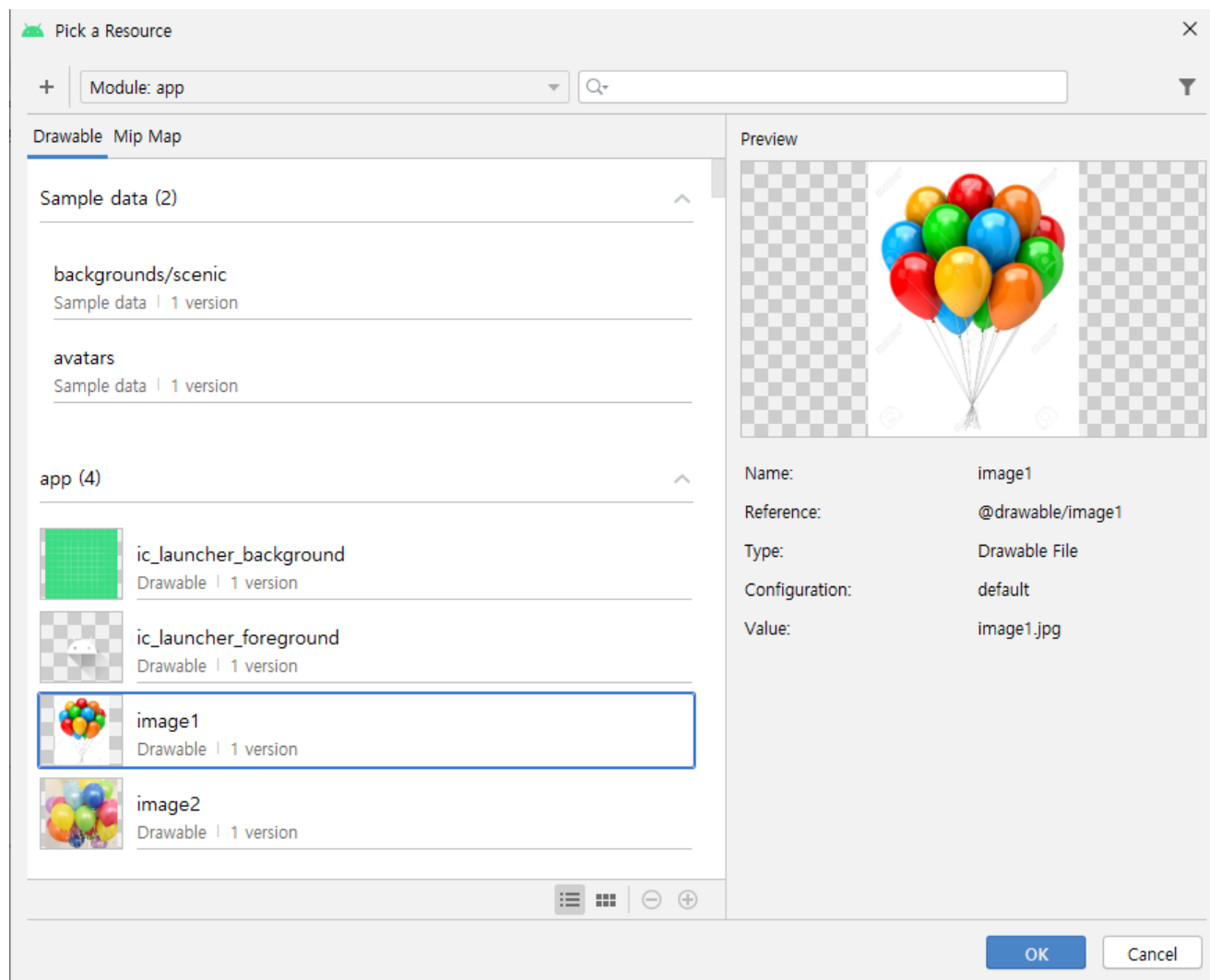
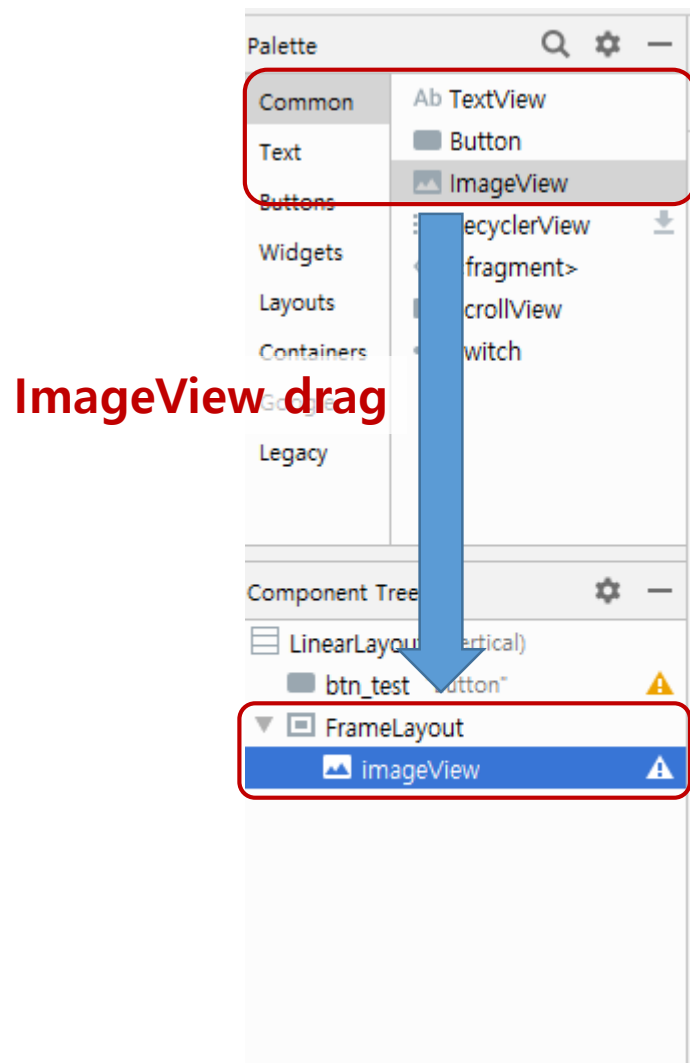


- res → drawable 폴더에 그림을 drag

image1.jpg  
image2.jpg

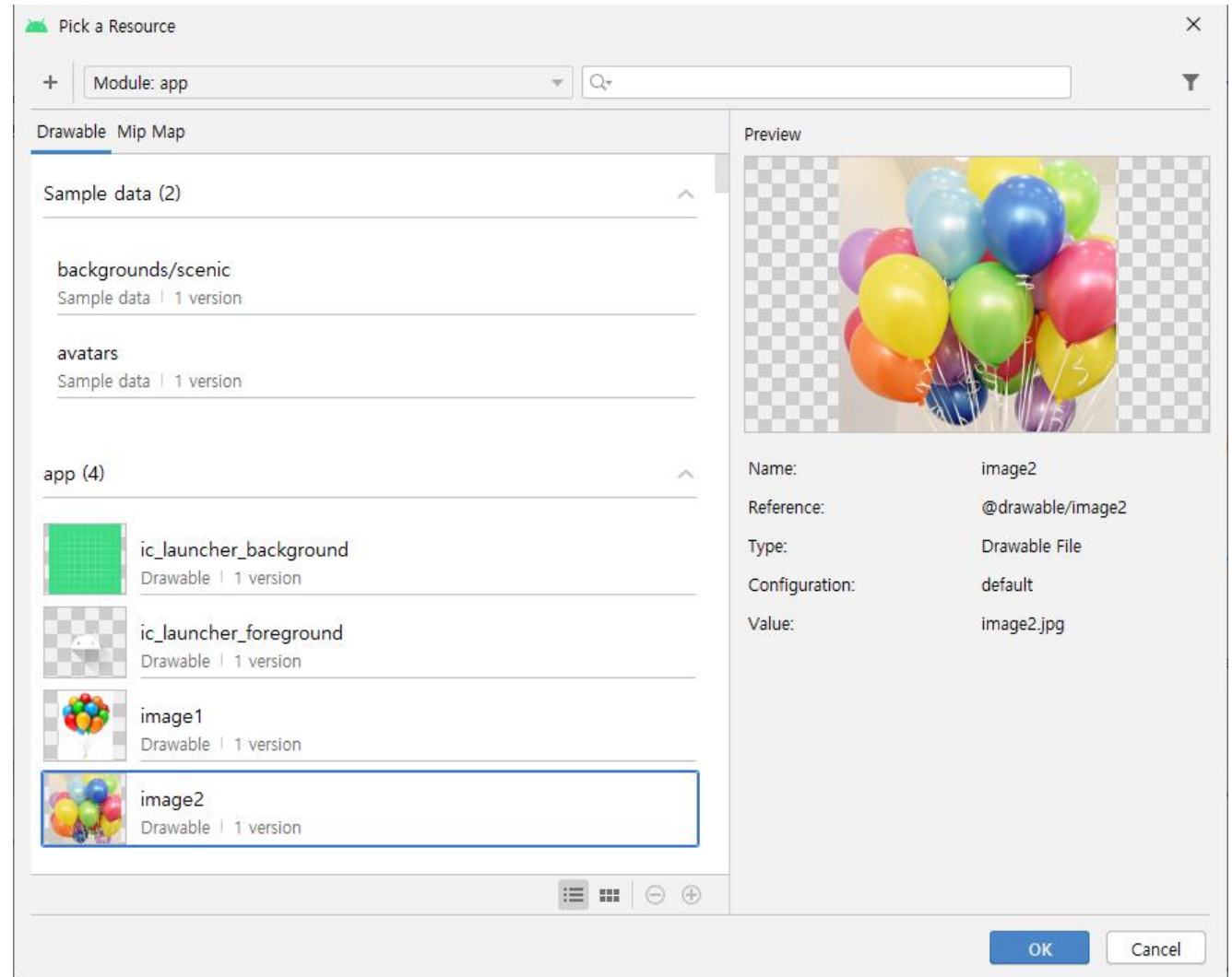
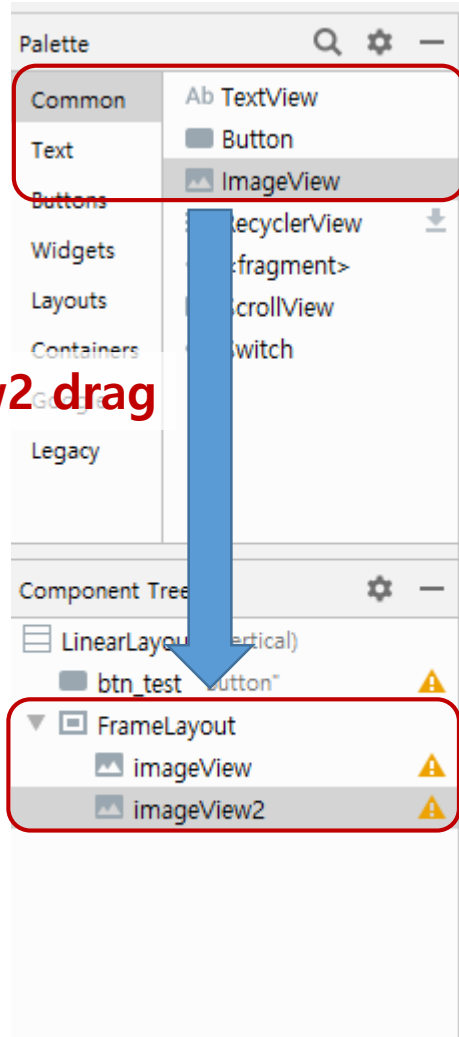


## ■ ImageView를 FrameLayout에 추가



## ■ ImageView2를 FrameLayout에 추가

ImageView2 drag



```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical">

    <Button
        android:id="@+id/btn_test"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Button" />

    <FrameLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <ImageView
            android:id="@+id/imageView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            app:srcCompat="@drawable/image1" />
        <ImageView
            android:id="@+id/imageView2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:visibility="invisible"
            app:srcCompat="@drawable/image2" />
    </FrameLayout>
</LinearLayout>

```

```

public class MainActivity extends AppCompatActivity {

    Button btn_test;
    ImageView imageView;
    ImageView imageView2;
    int index=0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        imageView = findViewById(R.id.imageView);
        imageView2 = findViewById(R.id.imageView2);
        btn_test = findViewById(R.id.btn_test);
        btn_test.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                //다음 페이지에
            }
        });
    }
}

```



```

public class MainActivity extends AppCompatActivity {

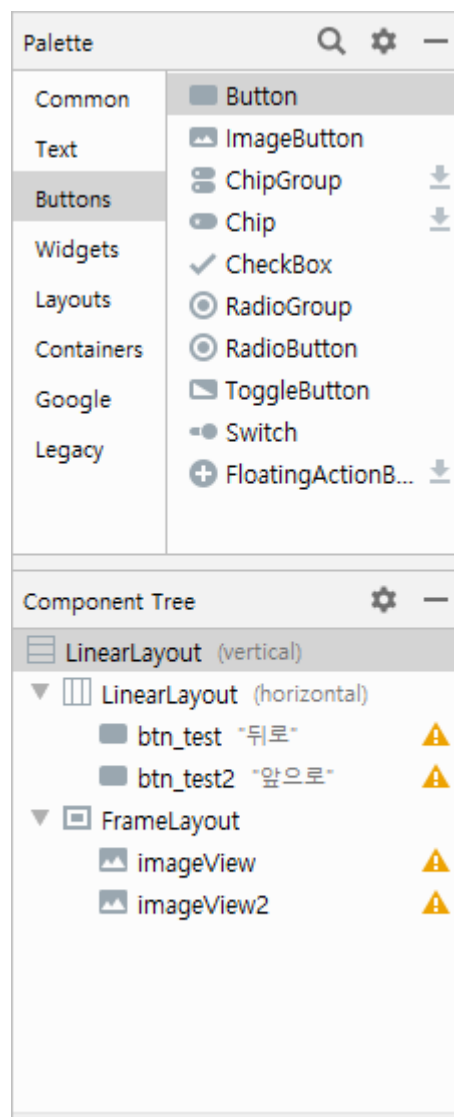
    Button btn_test;
    ImageView imageView;
    ImageView imageView2;
    int index=0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        imageView = findViewById(R.id.imageView);
        imageView2 = findViewById(R.id.imageView2);
        btn_test = findViewById(R.id.btn_test);
        btn_test.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                index+=1;
                if(index>1){
                    index=0;
                }
                if(index==0){
                    imageView.setVisibility(View.VISIBLE);
                    imageView2.setVisibility(View.INVISIBLE);
                }
                else{
                    imageView.setVisibility(View.INVISIBLE);
                    imageView2.setVisibility(View.VISIBLE);
                }
            }
        });
    }
}

```

```
public void onClick(View v) {  
    index+=1;  
    if(index>1){  
        index=0;  
    }  
    if(index==0){  
        imageView.setVisibility(View.VISIBLE);  
        imageView2.setVisibility(View.INVISIBLE);  
    }  
    else{  
        imageView.setVisibility(View.INVISIBLE);  
        imageView2.setVisibility(View.VISIBLE);  
    }  
}
```





```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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="wrap_content"
    android:orientation="vertical">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">

        <Button
            android:id="@+id/btn_test"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="뒤로" />

        <Button
            android:id="@+id/btn_test2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="앞으로" />
    </LinearLayout>

    <FrameLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <ImageView
            android:id="@+id/imageView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            app:srcCompat="@drawable/image1" />

        <ImageView
            android:id="@+id/imageView2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:visibility="invisible"
            app:srcCompat="@drawable/image2" />
    </FrameLayout>
</LinearLayout>
```

```

public class MainActivity extends AppCompatActivity {

    Button btn_test, btn_test2;
    ImageView imageView, imageView2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        imageView = findViewById(R.id.imageView);
        imageView2 = findViewById(R.id.imageView2);
        btn_test = findViewById(R.id.btn_test);
        btn_test.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                imageView.setVisibility(View.VISIBLE);
                imageView2.setVisibility(View.INVISIBLE);
            }
        });
        btn_test2 = findViewById(R.id.btn_test2);
        btn_test2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                imageView.setVisibility(View.INVISIBLE);
                imageView2.setVisibility(View.VISIBLE);
            }
        });
    }
}

```