

## LIST VIEW (ARRAY ADAPTER)

### MAIN XML

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

    <ListView
        android:id="@+id/simpleListView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:divider="@color/material_blue_grey_800"
        android:dividerHeight="1dp" />
</LinearLayout>
```

### activity\_listview.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:padding="16dp"
        android:textColor="@color/black" />
</LinearLayout>
```

### mainActivity.java

```
public class MainActivity extends AppCompatActivity {
    // Array of strings...
    ListView simpleList;
    String countryList[] = {"India", "China", "australia", "Portugle", "America", "NewZealand"};

    @Override protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        simpleList = findViewById(R.id.simpleListView);
        ArrayAdapter<String> arrayAdapter = new ArrayAdapter<String>(this,
R.layout.activity_listview, R.id.textView, countryList);
        simpleList.setAdapter(arrayAdapter);
    }
}
```

```

simpleList.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
        String value = arrayAdapter.getItem(position);
        Toast.makeText(getApplicationContext(),value,Toast.LENGTH_SHORT).show();
    }
});
}
}

```

## LIST VIEW(BASE ADAPTER)

### MAIN XML

```

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

    <ListView
        android:id="@+id/simpleListView"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:divider="@color/colorPrimaryDark"
        android:dividerHeight="1dp"
    />

</LinearLayout>

```

### activity\_listview.xml

```

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

    <ImageView

```

```

android:id="@+id/icon"
android:layout_width="50dp"
android:layout_height="50dp"
/>

<TextView
android:id="@+id/textView"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:padding="15dp"
android:textColor="@color/black" />
</LinearLayout>

```

## JAVA MAIN

```

import android.app.Activity;
import android.os.Bundle;
import android.widget.ListView;

public class MainActivity extends Activity {

    ListView simpleList;
    String countryList[] = {"India", "China", "australia", "Portugle", "America", "NewZealand"};
    int flags[] = {R.drawable.india, R.drawable.china, R.drawable.australia, R.drawable.portugle,
    R.drawable.america, R.drawable.new_zealand};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        simpleList = (ListView) findViewById(R.id.simpleListView);
        CustomAdapter customAdapter = new CustomAdapter(getApplicationContext(), countryList,
        flags);
        simpleList.setAdapter(customAdapter);
    }
}

```

## CUSTOM ADAPTER JAVA

```

CustomAdapter.java
public class CustomAdapter extends BaseAdapter {
    Context context;

```

```

String countryList[];
int flags[];
LayoutInflater inflater;

public CustomAdapter(Context applicationContext, String[] countryList, int[] flags) {
    this.context = context;
    this.countryList = countryList;
    this.flags = flags;
    inflater = (LayoutInflater.from(applicationContext));
}

@Override
public int getCount() {
    return countryList.length;
}

@Override
public Object getItem(int i) {
    return null;
}

@Override
public long getItemId(int i) {
    return 0;
}

@Override
public View getView(int i, View view, ViewGroup viewGroup) {
    view = inflater.inflate(R.layout.activity_listview, null);
    TextView country = (TextView) view.findViewById(R.id.textView);
    ImageView icon = (ImageView) view.findViewById(R.id.icon);
    country.setText(countryList[i]);
    icon.setImageResource(flags[i]);
    return view;
}

```

## SHAPES

```

package com.example.program20shapes;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.widget.*;

```

```

import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.os.Bundle;
import android.view.View;
public class MainActivity<textPaint> extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState);
        setContentView(new myView(this));
    }
    public class myView extends View
    {
        Paint p1,p2;
        public myView(Context context)
        {
            super(context);
            p1=new Paint();
            p1.setColor(Color.GREEN);
            p2 = new Paint();
            p2.setColor(Color.RED);
            p1.setStyle(Paint.Style.STROKE);
            p1.setStrokeWidth(3);
            p2.setTextSize(35);
        }
        @Override
        protected void onDraw(Canvas canvas)
        {
            canvas.drawColor(Color.WHITE);
            // canvas.drawLine(250,78,250,120,p2);
            canvas.drawText("Rectangle 1:", 10, 50, p2); canvas.drawRect(15,60,100,100,p1);
            canvas.drawText("Rectangle 2:", 10, 150, p2); canvas.drawRect(15,160,50,300,p1);
            canvas.drawText("Line 1:", 10, 350, p2); canvas.drawLine(15,350,320,350,p2);
            canvas.drawText("Circle:", 10, 400, p2); canvas.drawCircle(40,450,30,p2);
        }
    }
}

```

Options Menu  
Activity\_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
tools:context=".MainActivity">

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello World!"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Main\_Activity.java

```
package com.example.optionmenu;
```

```
import androidx.annotation.NonNull;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.Menu;
```

```
import android.view.MenuInflater;
```

```
import android.view.MenuItem;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
    }
```

```
    @Override
```

```
    public boolean onCreatePanelMenu(int featureId, @NonNull Menu menu) {
```

```
        MenuInflater menuInflater=getMenuInflater();
```

```
        menuInflater.inflate(R.menu.menu,menu);
```

```

        return super.onCreatePanelMenu(featureId, menu);
    }

    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        int itemId=item.getItemId();
        if (itemId==R.id.File)
            Toast.makeText(this, "File", Toast.LENGTH_SHORT).show();
        else if(itemId==R.id.save)
            Toast.makeText(this, "save", Toast.LENGTH_SHORT).show();
        else if(itemId==R.id.saveas)
            Toast.makeText(this,"saveas",Toast.LENGTH_SHORT).show();
        else if(itemId==R.id.Edit)
            Toast.makeText(this,"Edit",Toast.LENGTH_SHORT).show();
        else if(itemId==R.id.Print)
            Toast.makeText(this,"Print",Toast.LENGTH_SHORT).show();
        return super.onOptionsItemSelected(item);
    }
}

```

Menu.xml

```

<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:id="@+id/File"
        android:title="File">
        <menu>
            <item
                android:id="@+id/save"
                android:title="Save"
            ></item>
            <item
                android:id="@+id/saveas"
                android:title="Saveas">
            </item>
        </menu>
    </item>

    <item
        android:title="Edit"
        android:id="@+id/Edit">

```

```
</item>
```

```
<item  
    android:id="@+id/Print"  
    android:title="Print"></item>
```

```
</menu>
```

## Popup Menu

Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout  
    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"  
    tools:context=".MainActivity">
```

```
    <Button  
        android:id="@+id/button"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Button"  
        android:onClick="showPop"  
        app:layout_constraintBottom_toBottomOf="parent"  
        app:layout_constraintEnd_toEndOf="parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintTop_toTopOf="parent"  
        app:layout_constraintVertical_bias="0.499" />  
</androidx.constraintlayout.widget.ConstraintLayout>
```

Popup\_menu.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<menu xmlns:android="http://schemas.android.com/apk/res/android">  
    <item android:id="@+id/share"  
        android:title="@string/share">  
  
    </item>  
    <item android:title="@string/replay"  
        android:id="@+id/replay">
```



</item>

<item android:id="@+id/forward"  
    android:title="@string/forward">

</item>

</menu>

Mainactivity.java

```
package com.example.popupmenu;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.MenuItem;
```

```
import android.view.View;
```

```
import android.widget.PopupMenu;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity implements  
PopupMenu.OnMenuItemClickListener {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
    }
```

```
    public void showPop(View v)
```

```
    {
```

```
        PopupMenu popupMenu=new PopupMenu(this,v);
```

```
        popupMenu.setOnMenuItemClickListener((PopupMenu.OnMenuItemClickListener) this);
```

```
        popupMenu.inflate(R.menu.popup_menu);
```

```
        popupMenu.show();
```

```
    }
```

```
    @Override
```

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

```
        int it=item.getItemId();
```

```
        if(it==R.id.share)
```

```

        Toast.makeText(this, "Share", Toast.LENGTH_SHORT).show();
        if(it==R.id.forward)
            Toast.makeText(this, "Forward", Toast.LENGTH_SHORT).show();
        if(it==R.id.replay)
            Toast.makeText(this, "replay", Toast.LENGTH_SHORT).show();
        return true;
    }
}

```

```

}

```

### 3.Context Menu

Activity\_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="166dp"
        android:layout_height="78dp"
        android:text="TextView"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Custom\_menu.xml

```

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

```

```

<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:title="share"
        android:id="@+id/share"></item>
    <item
        android:title="reply"
        android:id="@+id/reply">

    </item>
    <item
        android:title="forward"
        android:id="@+id/forward"></item>

</menu>

```

Activity.java

```
package com.example.contextmenu;
```

```
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.widget.TextView;
import android.view.ContextMenu;
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
    TextView tv;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=findViewById(R.id.textView);
        registerForContextMenu(tv);
    }
```

```
    @Override
```

```
    public void onCreateContextMenu(ContextMenu menu, View v,
        ContextMenu.ContextMenuInfo menuInfo) {
        getMenuInflater().inflate(R.menu.context_menu,menu);
    }
```

```

        super.onCreateContextMenu(menu, v, menuInfo);
    }

    @Override
    public boolean onContextItemSelected(@NonNull MenuItem item) {
        int it=item.getItemId();
        if(it==R.id.share)
            Toast.makeText(this, "Share", Toast.LENGTH_SHORT).show();
        if(it==R.id.reply)
            Toast.makeText(this, "Reply", Toast.LENGTH_SHORT).show();
        if(it==R.id.forward)
            Toast.makeText(this, "Forward", Toast.LENGTH_SHORT).show();
        return super.onContextItemSelected(item);
    }
}

```

## SHARED PREFERENCES

### MAIN XML

```

<?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"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textview"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center_horizontal"
        android:textSize="30sp"
        tools:text="Here will be our text" />
    <EditText
        android:id="@+id/edittext"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <Button
        android:id="@+id/apply_text_button"

```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center_horizontal"
    android:text="apply text" />
```

```
<Switch
    android:id="@+id/switch1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center_horizontal" />
<Button
    android:id="@+id/save_button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center_horizontal"
    android:text="save data" />
</LinearLayout>
```

java main

```
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Switch;
import android.widget.TextView;
import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
    private TextView textView;
    private EditText editText;
    private Button applyTextButton;
    private Button saveButton;
    private Switch switch1;
    public static final String SHARED_PREFS = "sharedPrefs";
    public static final String TEXT = "text";
    public static final String SWITCH1 = "switch1";
    private String text;
    private boolean switchOnOff;
```

@Override

```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    textView = findViewById(R.id.textview);
    editText = findViewById(R.id.edittext);
    applyTextButton = findViewById(R.id.apply_text_button);
    saveButton = findViewById(R.id.save_button);
    switch1 = findViewById(R.id.switch1);

    applyTextButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            textView.setText(editText.getText().toString());
        }
    });
    saveButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            saveData();
        }
    });
    loadData();
    updateViews();
}

public void saveData() {
    SharedPreferences sharedPreferences = getSharedPreferences(SHARED_PREFS,
MODE_PRIVATE);
    SharedPreferences.Editor editor = sharedPreferences.edit();
    editor.putString(TEXT, textView.getText().toString());
    editor.putBoolean(SWITCH1, switch1.isChecked());
    editor.apply();
    Toast.makeText(this, "Data saved", Toast.LENGTH_SHORT).show();
}

public void loadData()
{
    SharedPreferences sharedPreferences =getSharedPreferences(SHARED_PREFS,
MODE_PRIVATE);
    text = sharedPreferences.getString(TEXT,"");
    switchOnOff=sharedPreferences.getBoolean(SWITCH1,false);
}

public void updateViews()

```

```
{
    textView.setText(text);
    switch1.setChecked(switchOnOff);
}
```

## SIMPLE FRAGMENT

fragment\_blank.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    tools:context=".BlankFragment">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment"
        android:layout_marginTop="100dp"
        android:layout_centerHorizontal="true"
    />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Fragment Button"
        android:layout_marginTop="200dp"
        android:layout_centerHorizontal="true"/>

</RelativeLayout>
```

activity\_main.xml

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

```

<androidx.constraintlayout.widget.ConstraintLayout
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"
    tools:context=".MainActivity">

    <fragment
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        class = "com.example.fragment2.BlankFragment"
        android:id="@+id/frag1"
        tools:layout="@layout/fragment_blank"
    />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:layout_marginEnd="108dp"
        android:text="Activity Button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

BlankFragment.java

```
package com.example.fragment2;
```

```
import android.os.Bundle;
```

```
import androidx.fragment.app.Fragment;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
import android.widget.Button;
```

```
import android.widget.Toast;
```

```
public class BlankFragment extends Fragment {
```

```
    View view;
```



Button firstbutton;

```
@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
                        Bundle savedInstanceState) {
    // Inflate the layout for this fragment
    view = inflater.inflate(R.layout.fragment_blank, container, false);
    firstbutton = view.findViewById(R.id.button2);
    firstbutton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Toast.makeText(getActivity(), "Fragment button", Toast.LENGTH_SHORT).show();
        }
    });

    return view;
}
}
```

MainActivity.java

```
package com.example.fragment2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1 = findViewById(R.id.button);
        b1.setOnClickListener(new View.OnClickListener() {
```

```

        @Override
        public void onClick(View view) {
            Toast.makeText(getApplicationContext(),"activity button",
            Toast.LENGTH_LONG).show();
        }
    });
}
}

```

## Activity Life cycle

### Activitymain.xml

```

<RelativeLayout 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"
    tools:context=".MainActivity">
    <!-- Take a fragment in our activity -->
    <fragment
        android:id="@+id/test_fragment"
        class="com.sindhu.fraglifecycle.TestFragment"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:layout="@layout/fragment_test" />

</RelativeLayout>

```

### Fragment\_test.xml

```

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

    <!-- Create a TextView -->

    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:gravity="center"

```

```
        android:text="Please Check Logcat.!!!"
        android:textColor="#000"
        android:textSize="25sp" />
</LinearLayout>
```

MainActivity.java

```
package com.sindhu.fraglifecycle;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

TestFragment.java

```
package com.sindhu.fraglifecycle;

import android.annotation.TargetApi;
import android.app.Activity;
import android.app.Fragment;
import android.os.Build;
import android.os.Bundle;
import android.util.Log;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

public class TestFragment extends Fragment {

    private void printLog(String s) {
// display a message in Log File
        Log.d("LifeCycle:", s);
    }
}
```

```
@Override
public void onActivityCreated(Bundle savedInstanceState) {
    super.onActivityCreated(savedInstanceState);
    printLog("onActivityCreated Called");
}
```

```
@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {

    View v = inflater.inflate(R.layout.fragment_test, container, false);
    printLog("onCreateView Called");

    return v;
}
```

```
@Override
public void onViewCreated(View view, Bundle savedInstanceState) {
    super.onViewCreated(view, savedInstanceState);
    printLog("onViewCreated Called");
}
```

```
@Override
public void onAttach(Activity activity) {
    super.onAttach(activity);
    printLog("onAttach Called");
}
```

```
@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    printLog("onCreate Called");
}
```

```
@Override
public void onDestroy() {
    super.onDestroy();
    printLog("onDestroy Called");
}
```

```
@Override
public void onDestroyView() {
```

```

        super.onDestroyView();
        printLog("onDestroyView Called");
    }

    @Override
    public void onDetach() {
        super.onDetach();
        printLog("onDetach Called");
    }

    @Override
    public void onPause() {
        super.onPause();
        printLog("onPause Called");
    }

    @Override
    public void onResume() {
        super.onResume();
        printLog("onResume Called");
    }

    @Override
    public void onStart() {
        super.onStart();
        printLog("onStart Called");
    }

    @Override
    public void onStop() {
        super.onStop();
        printLog("onStop Called");
    }
}

```

## 14.INTENTS

```

<Button
    android:id="@ id/implicit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="148dp"

```

```

        android:layout_marginLeft="148dp"
        android:layout_marginTop="152dp"
        android:text="Implicit"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

```

```

<Button
    android:id="@ id/explicit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="72dp"
    android:layout_marginEnd="172dp"
    android:layout_marginRight="172dp"
    android:text="Explicit"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@ id/button" />

```

```

<TextView
    android:id="@ id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="224dp"
    android:textAppearance="?android:attr/textAppearanceLarge"
    android:text="Second Activity"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.538"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

```

java

```

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button explicit_btn = findViewById(R.id.explicit);
        Button implicit_btn = findViewById(R.id.implicit);

        //implement Onclick event for Explicit Intent

        explicit_btn.setOnClickListener(new View.OnClickListener() {
            @Override

```

```

public void onClick(View v) {

    Intent intent = new Intent(this, MainActivity2.class);
    startActivity(intent);

}
});

```

//implement onClick event for Implicit Intent

```

implicit_btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {

        Intent intent = new Intent(Intent.ACTION_VIEW);
        intent.setData(Uri.parse("https://www.google.com"));
        startActivity(intent);
    }
});
}
}

```

```

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        Toast.makeText(getApplicationContext(), "We are moved to second Activity",
        Toast.LENGTH_LONG).show();
    }
}

```

ANIMATIONS

## Main\_activity.xml

```
<RelativeLayout
    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"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="BMSCE"
        android:id="@+id/textView"
        android:textSize="35dp"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Animations"
        android:id="@+id/textView2"
        android:textColor="#ff3eff0f"
        android:textSize="35dp"
        android:layout_below="@+id/textView"
        android:layout_centerHorizontal="true" />

    <ImageView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/imageView"
        android:src="@drawable/ic_launcher_background"
        android:layout_below="@+id/textView2"
        android:layout_alignRight="@+id/textView2"
        android:layout_alignEnd="@+id/textView2"
        android:layout_alignLeft="@+id/textView"
        android:layout_alignStart="@+id/textView"/>

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="zoom"
        android:id="@+id/button"
```



```
    android:layout_below="@+id/imageView"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true"
    android:layout_marginTop="40dp"
    android:onClick="clockwise"/>
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="clockwise"
    android:id="@+id/button2"
    android:layout_alignTop="@+id/button"
    android:layout_centerHorizontal="true"
    android:onClick="zoom"/>
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="fade"
    android:id="@+id/button3"
    android:layout_alignTop="@+id/button2"
    android:layout_alignParentRight="true"
    android:layout_alignParentEnd="true"
    android:onClick="fade"/>
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="blink"
    android:onClick="blink"
    android:id="@+id/button4"
    android:layout_below="@+id/button"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="move"
    android:onClick="move"
    android:id="@+id/button5"
    android:layout_below="@+id/button2"
    android:layout_alignRight="@+id/button2"
    android:layout_alignEnd="@+id/button2"
```

```
android:layout_alignLeft="@+id/button2"
android:layout_alignStart="@+id/button2" />
```

```
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="slide"
    android:onClick="slide"
    android:id="@+id/button6"
    android:layout_below="@+id/button3"
    android:layout_toRightOf="@+id/textView"
    android:layout_toEndOf="@+id/textView" />
```

```
</RelativeLayout>
```

Mainactivity.java

```
package com.example.animation2;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.app.Activity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.view.animation.Animation;
```

```
import android.view.animation.AnimationUtils;
```

```
import android.widget.ImageView;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends Activity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
    }
```

```
    public void clockwise(View view){
```

```
        ImageView image = (ImageView)findViewById(R.id.imageView);
```

```
        Animation animation = AnimationUtils.loadAnimation(getApplicationContext(),
```

```
            R.anim.myanimation);
```

```
        image.startAnimation(animation);
```

```

    }

    public void zoom(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 = AnimationUtils.loadAnimation(getApplicationContext(),
            R.anim.clockwise);
        image.startAnimation(animation1);
    }

    public void fade(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
            AnimationUtils.loadAnimation(getApplicationContext(),
                R.anim.fade);
        image.startAnimation(animation1);
    }

    public void blink(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
            AnimationUtils.loadAnimation(getApplicationContext(),
                R.anim.blink);
        image.startAnimation(animation1);
    }

    public void move(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
            AnimationUtils.loadAnimation(getApplicationContext(), R.anim.move);
        image.startAnimation(animation1);
    }

    public void slide(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
            AnimationUtils.loadAnimation(getApplicationContext(), R.anim.slide);
        image.startAnimation(animation1);
    }
}

/res/anim/myanimation.xml
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">

```

```
<scale xmlns:android="http://schemas.android.com/apk/res/android"
  android:fromXScale="0.5"
  android:toXScale="3.0"
  android:fromYScale="0.5"
  android:toYScale="3.0"
  android:duration="5000"
  android:pivotX="50%"
  android:pivotY="50%" >
</scale>
```

```
<scale xmlns:android="http://schemas.android.com/apk/res/android"
  android:startOffset="5000"
  android:fromXScale="3.0"
  android:toXScale="0.5"
  android:fromYScale="3.0"
  android:toYScale="0.5"
  android:duration="5000"
  android:pivotX="50%"
  android:pivotY="50%" >
</scale>
```

```
</set>
```

/res/anim/clockwise.xml

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">

  <rotate xmlns:android="http://schemas.android.com/apk/res/android"
    android:fromDegrees="0"
    android:toDegrees="360"
    android:pivotX="50%"
    android:pivotY="50%"
    android:duration="5000" >
  </rotate>

  <rotate xmlns:android="http://schemas.android.com/apk/res/android"
    android:startOffset="5000"
    android:fromDegrees="360"
    android:toDegrees="0"
```

```
        android:pivotX="50%"
        android:pivotY="50%"
        android:duration="5000" >
</rotate>
```

```
</set>
```

```
/res/anim/fade.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@android:anim/accelerate_interpolator" >
```

```
    <alpha
        android:fromAlpha="0"
        android:toAlpha="1"
        android:duration="2000" >
    </alpha>
```

```
    <alpha
        android:startOffset="2000"
        android:fromAlpha="1"
        android:toAlpha="0"
        android:duration="2000" >
    </alpha>
```

```
</set>
```

```
/res/anim/blink.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
    <alpha android:fromAlpha="0.0"
        android:toAlpha="1.0"
        android:interpolator="@android:anim/accelerate_interpolator"
        android:duration="600"
        android:repeatMode="reverse"
        android:repeatCount="infinite"/>
</set>
```

```
/res/anim/move.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<set
    xmlns:android="http://schemas.android.com/apk/res/android"
```

```
android:interpolator="@android:anim/linear_interpolator"  
android:fillAfter="true">
```

```
<translate  
    android:fromXDelta="0%p"  
    android:toXDelta="75%p"  
    android:duration="800" />  
</set>
```

/res/anim/slide .xml

```
<?xml version="1.0" encoding="utf-8"?>  
<set xmlns:android="http://schemas.android.com/apk/res/android"  
    android:fillAfter="true" >
```

```
<scale  
    android:duration="500"  
    android:fromXScale="1.0"  
    android:fromYScale="1.0"  
    android:interpolator="@android:anim/linear_interpolator"  
    android:toXScale="1.0"  
    android:toYScale="0.0" />  
</set>
```