

1.Login

Xml Code

```
<?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="LOGIN"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et2"
app:layout_constraintVertical_bias="0.156" />
<EditText
android:id="@+id/et1"
android:layout_width="231dp"
android:layout_height="76dp"
android:layout_marginBottom="8dp"
android:ems="10"
android:inputType="textPersonName"
android:text=""
app:layout_constraintBottom_toTopOf="@+id/et2"
app:layout_constraintEnd_toEndOf="parent"
```

```

app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.711"
tools:ignore="MissingConstraints" />
<EditText
    android:id="@+id/et2"
    android:layout_width="229dp"

    android:layout_height="72dp"
    android:layout_marginBottom="412dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text=""
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.505"
    app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Java Code

```

package com.example.login;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import java.util.Objects;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        EditText Username, password;
        Button LOGIN;
        super.onCreate(savedInstanceState);
    }
}

```

```
setContentView(R.layout.activity_main);
Username = findViewById(R.id.et1);
password = findViewById(R.id.et2);
LOGIN = findViewById(R.id.button);
LOGIN.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        if (Objects.equals(Username.getText().toString(), "admin") &&
            Objects.equals(password.getText().toString(), "admin"))

        {
            Toast.makeText(MainActivity.this, "authentication Successfully",

            Toast.LENGTH_LONG).show();
        }
        else{
            Toast.makeText(MainActivity.this, "Failed", Toast.LENGTH_LONG).show();
        }
    }
});
}
```

2.Activity Life Cycle

Java Code

```
package com.example.activitylifecycle;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "activity created", Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onStart() {
        super.onStart();
        Toast.makeText(this, "activity paused", Toast.LENGTH_SHORT).show();
    }
    @Override
    protected void onResume() {
```

```
super.onResume();
```

```
Toast.makeText(this, "activity resumed", Toast.LENGTH_SHORT).show();  
}
```

```
@Override
```

```
protected void onPause() {
```

```
super.onPause();
```

```
Toast.makeText(this, "activity paused", Toast.LENGTH_SHORT).show();
```

```
}
```

```
@Override
```

```
protected void onStop() {
```

```
super.onStop();
```

```
Toast.makeText(this, "activity stopped", Toast.LENGTH_SHORT).show();
```

```
}
```

```
@Override
```

```
protected void onRestart() {
```

```
super.onRestart();
```

```
Toast.makeText(this, "activity restarted", Toast.LENGTH_SHORT).show();
```

```
}
```

```
@Override
```

```
protected void onDestroy(){
```

```
super.onDestroy();
```

```
Toast.makeText(this,"destroy",Toast.LENGTH_SHORT).show();
```

```
}
```

```
}
```

3.CALCULATOR

Xml code

```
<?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/res"
        android:layout_width="147dp"
        android:layout_height="54dp"
        android:text=" "
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.54" />

    <EditText
        android:id="@+id/num1"
        android:layout_width="216dp"
        android:layout_height="59dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=""
```

```
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.172"
tools:ignore="MissingConstraints" />
```

<EditText

```
android:id="@+id/num2"
android:layout_width="229dp"
android:layout_height="58dp"
android:ems="10"
android:inputType="textPersonName"
android:text=""
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.461"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.383" />
```

<Button

```
android:id="@+id/button5"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="dosum"
android:text="add"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.309"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.724" />
```

<Button

```
android:id="@+id/button6"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="dosub"
android:text="sub"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.749"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.904" />
```

<Button

```
android:id="@+id/button7"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="domult"
android:text="mul"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.309"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.877" />
```

<Button

```
android:id="@+id/button8"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="dodiv"
android:text="div"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.749"
app:layout_constraintStart_toStartOf="parent"
```



```
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.722" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Java code

```
package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    EditText e1,e2;
    TextView t1;
    int n1,n2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public boolean getNumbers() {
        e1 = (EditText) findViewById(R.id.num1);
        e2 = (EditText) findViewById(R.id.num2);
        t1 = (TextView) findViewById(R.id.res);
        String s1 = e1.getText().toString();
        String s2 = e2.getText().toString();
```

```
n1 = Integer.parseInt(s1);  
n2 = Integer.parseInt(s2);
```

```
    return true;  
}  
public void dosum(View v) {  
    if (getNumbers()) {  
        int sum = n1 + n2;  
        t1.setText(Integer.toString(sum));  
    }  
}  
public void dosub(View v)  
{  
    if(getNumbers()) {  
        int sum = n1 - n2;  
        t1.setText(Integer.toString(sum));  
    }  
}  
public void domult(View v)  
{  
    if(getNumbers()){  
        int sum=n1*n2;  
        t1.setText(Integer.toString(sum));  
    }  
}  
public void dodiv(View v)  
{  
    if(getNumbers()){  
        double sum=n1/n2;  
        t1.setText(Double.toString(sum));  
    }  
}  
}
```

4.EXPLICIT INTENT

activitymain.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="257dp"
        android:layout_height="50dp"
        android:text="Enter the data"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.449"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.128" />

    <EditText
        android:id="@+id/name"
        android:layout_width="308dp"
        android:layout_height="64dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=" "
        app:layout_constraintBottom_toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.473"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.343" />
```

```
<EditText
    android:id="@+id/email"
    android:layout_width="305dp"
    android:layout_height="58dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text=" "
    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" />
```

```
<EditText
    android:id="@+id/phone"
    android:layout_width="295dp"
    android:layout_height="63dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text=" "
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.422"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.649" />
```

```
<Button
    android:id="@+id/b1"
```

```
android:layout_width="180dp"
android:layout_height="65dp"
android:text="Button"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.474"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.841" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

Java code

```
package com.example.explicit;

import androidx.appcompat.app.AppCompatActivity;

import android.app.ActionBar;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

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

```

Button sub=findViewById(R.id.b1);
EditText nm=findViewById(R.id.name);
EditText eml=findViewById(R.id.email);
EditText pho=findViewById(R.id.phone);
sub.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
        String user=nm.getText().toString();
        i.putExtra("Name",user);
        String Email=eml.getText().toString();
        i.putExtra("Email",Email);
        String phones=pho.getText().toString();
        i.putExtra("Phone",phones);
        startActivity(i);
    }
});
}
}

```

activity2.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=".MainActivity2">

<EditText
    android:id="@+id/et1"
    android:layout_width="254dp"

```

```
android:layout_height="87dp"
android:ems="10"
android:inputType="textPersonName"
android:text="name"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.503"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.096"
tools:ignore="MissingConstraints" />
```

<EditText

```
android:id="@+id/et2"
android:layout_width="250dp"
android:layout_height="61dp"
android:ems="10"
android:inputType="textPersonName"
android:text="Email"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.602"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.325"
tools:ignore="MissingConstraints" />
```

<EditText

```
android:id="@+id/et3"
android:layout_width="254dp"
android:layout_height="53dp"
android:ems="10"
android:inputType="textPersonName"
android:text="Phone"
app:layout_constraintBottom_toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.674"
tools:ignore="MissingConstraints" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA CODE

```
package com.example.explicit;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    EditText r1,r2,r3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        r1 = findViewById(R.id.t1);
        r2= findViewById(R.id.t2);
        r3 = findViewById(R.id.t3);

        Intent intent = getIntent();
        String str1 = intent.getStringExtra("Name");
        r1.setText(str1);
        String str2 = intent.getStringExtra("Phone");
```



```
    r2.setText(str2);  
    String str3 = intent.getStringExtra("Email");  
    r3.setText(str3);  
}  
}
```

5.Implicit intent

Xml code

```
<?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="wrap_content"
            android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/et1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=""
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.317" />
```

```

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="send"
    android:text="Button"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.409" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Java code

```

package com.example.implicit;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import java.net.URL;

import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity{
    EditText e1;
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
    }
}

```

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

e1=findViewById(R.id.et1);

}
public void send(View v)
{ String url=e1.getText().toString();

Intent i=new Intent(Intent.ACTION_VIEW,Uri.parse(url));
startActivity(i);}}
```

6.Relative layout

Xml code

```
<?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">
```

```
<RelativeLayout
    android:layout_width="409dp"
    android:layout_height="354dp"
    tools:layout_editor_absoluteX="1dp"
    tools:layout_editor_absoluteY="2dp" >
```

```
<ImageView
    android:id="@+id/imageView"
    android:layout_width="match_parent"
    android:layout_height="187dp"
    app:srcCompat="@drawable/Facebook" />
```

```
<ImageView
    android:id="@+id/imageView2"
    android:layout_width="189dp"
    android:layout_height="121dp"
    android:layout_below="@+id/imageView"
    android:layout_marginTop="-2dp"
    app:srcCompat="@drawable/baby" />
```

```
<Button
    android:id="@+id/button2"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Button"
android:layout_below="@+id/imageView"
android:layout_toRightOf="@+id/imageView2"/>
```

```
<Button
```

```
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_toRightOf="@+id/button2"
    android:layout_below="@+id/imageView"
```

```
    android:text="Button" />
```

```
</RelativeLayout>
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

7.GRID TOGGLE

Xml code

```
<?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:layout_margin="20dp"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/image"
        android:layout_width="match_parent"
        android:layout_height="250dp"/>
    <ToggleButton
        android:id="@+id/button"
        android:onClick="click"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

Java code

```
package com.example.toggle;

import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.ToggleButton;
```

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

```
import com.example.toggle.R;
```

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

```
    ImageView img;
```

```
    ToggleButton btn;
```

```
    @Override
```

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

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

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

```
        img = findViewById(R.id.image);
```

```
        btn = findViewById(R.id.button);
```

```
        img.setImageDrawable(getResources().getDrawable(R.drawable.img));  
    }
```

```
    public void click(View view){  
        if(btn.isChecked()){
```

```
            img.setImageDrawable(getResources().getDrawable(R.drawable.img_1));  
        }else{
```

```
            img.setImageDrawable(getResources().getDrawable(R.drawable.img));  
        }  
    }
```


8.ARRAY ADAPTER

activity_main.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=".MainActivity">

    <Spinner
        android:id="@+id/animalNamesSpinner"
        android:layout_width="108dp"
        android:layout_height="99dp"
        android:layout_centerInParent="true" />

</RelativeLayout>
```

activity_simpe_spinnner.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@android:id/text1"
    style="?android:attr/spinnerItemStyle"
    android:singleLine="true"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ellipsize="marquee"
    android:textAlignment="inherit"/>
```

Java code

```
package com.example.arrayadapter;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
import android.widget.Toast;

import com.example.arrayadapter.R;

public class MainActivity extends Activity implements
    AdapterView.OnItemClickListener {
    // Array of strings...
    String animalList[] = {"Lion", "Tiger", "Monkey", "Elephant", "Dog", "Cat",
        "Camel"};

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

        Spinner spin = (Spinner) findViewById(R.id.animalNamesSpinner);
        spin.setOnItemClickListener(this);

        ArrayAdapter aa = new ArrayAdapter(this,
            android.R.layout.simple_spinner_item, animalList);

        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown
            _item);
```

```
    spin.setAdapter(aa);  
}
```

```
@Override  
public void onItemSelected(AdapterView<?> arg0, View arg1, int position,  
long id) {  
    Toast.makeText(getApplicationContext(), animalList[position],  
Toast.LENGTH_LONG).show();  
}
```

```
@Override  
public void onNothingSelected(AdapterView<?> arg0) {  
  
}  
}
```

9.Fragment

fragment2.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:background="#FF03DAC5"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".fragment2">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Fragment2"
        android:textSize="50dp"
        android:layout_centerInParent="true"
    />
</RelativeLayout>
```

fragment1.java

```
package com.example.fragmentdemo;

import android.os.Bundle;

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



```

        // Inflate the layout for this fragment
        view= inflater.inflate(R.layout.fragment_fragment2, container, false);
        return view;
    }
}

```

Mainactivity.java

mainactivity.java

```

package com.example.fragmentdemo;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentTransaction;

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

public class MainActivity extends AppCompatActivity {
    Button first,second;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        first=findViewById(R.id.button);
        second=findViewById(R.id.button2);
        first.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

```

```

        replaceFragment(new fragment1());
    }
});
second.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        replaceFragment(new fragment2());
    }
});
}

```

```

private void replaceFragment(Fragment fragment) {
    FragmentManager fragmentmanager =getSupportFragmentManager();
    FragmentTransaction
fragmentTransaction=fragmentmanager.beginTransaction();
    fragmentTransaction.replace(R.id.framelayout,fragment);
    fragmentTransaction.commit();

}
}

```

