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Android widgets

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">

    <EditText
        android:id="@+id/name"
        android:layout_width="252dp"
        android:layout_height="57dp"
        android:ems="10"
        android:fontFamily="sans-serif-smallcaps"
        android:inputType="textPersonName"
        android:text="Enter your name"
        android:textSize="30sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.421"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.192" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Click"
        app:iconTint="#3F51B5"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.442"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/name"
        app:layout_constraintVertical_bias="0.093" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="280dp"
        android:layout_height="45dp"
        android:fontFamily="serif"
        android:text="Here it will be displayed"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```
    app:layout_constraintHorizontal_bias="0.469"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button"
    app:layout_constraintVertical_bias="0.127" />

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

Java code

```
package com.example.name162;

import androidx.appcompat.app.AppCompatActivity;

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

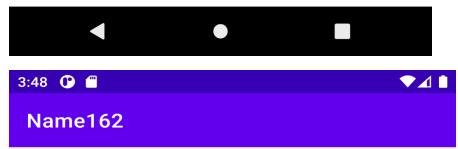
public class MainActivity extends AppCompatActivity {
    EditText name;
    Button button;
    TextView textView ;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        name = findViewById(R.id.name);
        button = findViewById(R.id.button);
        textView = findViewById(R.id.textView) ;
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String myStr = name.getText().toString();
                textView.setText(myStr);
                Toast.makeText(MainActivity.this, ":" + myStr,
Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

OUTPUT:



Here it will be displayed



SUCHITHRA|

CLICK

suchithra



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Alertdialog

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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <Button
        android:id="@+id/click"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="30dp"
        android:layout_marginRight="30dp"
        android:text="CLICK"

    />

</LinearLayout>
```

Java code:

```
package com.example.alertdialog162;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlertDialog;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Button alert;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        alert=findViewById(R.id.click);
        alert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                AlertDialog.Builder builder=new
                AlertDialog.Builder(MainActivity.this);
                builder.setIcon(R.drawable.ic_launcher_background);
```

```

        builder.setTitle("Alert Title");
        builder.setMessage("Shall I close this window");
        builder.setPositiveButton("Yes", new
DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int
i) {
                Toast.makeText(MainActivity.this,"you have pressed
yes",Toast.LENGTH_LONG).show();

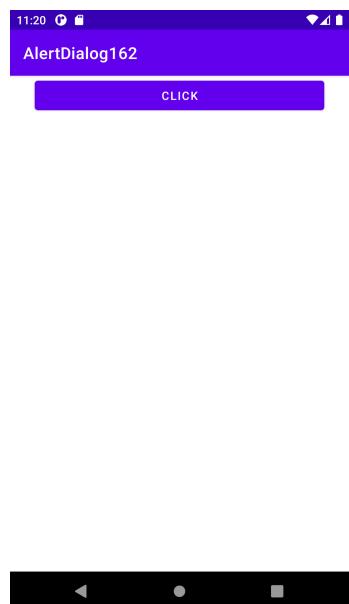
            }
        });
        builder.setNegativeButton("No", new
DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int
i) {
                finish();
            }
        });
        AlertDialog alertDialog=builder.create();
        alertDialog.show();
    }

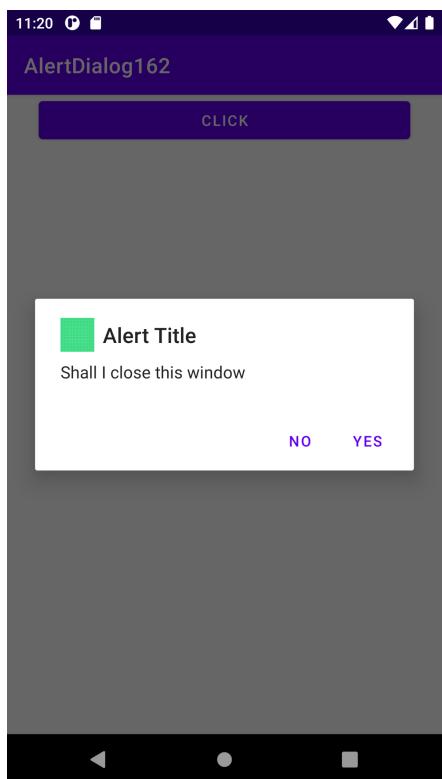
});;

}
}

```

OUTPUT





Imageview

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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <ImageView
        android:id="@+id/myImg"
        android:layout_width="match_parent"
        android:layout_height="400dp"
        android:src="@drawable/first"
        android:layout_margin="20dp"/>

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

</LinearLayout>
```

Java code

```
package com.example.image162;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    ImageView image;
    Button change;
    int flag=1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        image=findViewById(R.id.myImg);
```

```
change=findViewById(R.id.click);

change.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        if(flag==1){
            image.setImageResource(R.drawable.first);
            flag=2;
        }
        else{
            image.setImageResource(R.drawable.second);
        }
    }
});
```

OUTPUT:



2:44

Image162



CLICK



List View

String.xml

```
<resources>
    <string name="app_name">Listview162</string>
    <string-array name="country">
        <item>India</item>
        <item>China</item>
        <item>Pakistan</item>
        <item>USA</item>
        <item>UK</item>
    </string-array>
</resources>
```

Textview_layout.xml

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

<TextView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:text="Content"
    android:textSize="40dp"
    />
```

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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <ListView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/list"/>

</LinearLayout>
```

Java code

```
package com.example.listview162;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
```

```

import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    ListView myList;
    String countryList[];

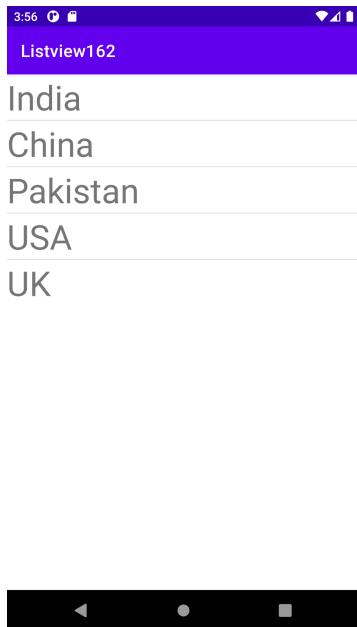
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        myList = findViewById(R.id.list);
        countryList = getResources().getStringArray(R.array.country);

        ArrayAdapter<String> arrayAdapter = new ArrayAdapter<String>(this,
R.layout.textview_layout, countryList);
        myList.setAdapter(arrayAdapter);

        myList.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
                Toast.makeText(MainActivity.this, "you have clicked:" +
adapterView.getItemAtPosition(i), Toast.LENGTH_LONG).show();
            }
        });
    }
}

```

OUTPUT:





you have clicked:India

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Explicit Intents

Mainactivity.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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/name"
        android:hint="Enter your name"/>

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

</LinearLayout>
```

Mainactivity.java

```
package com.example.explicitintent162;

import androidx.appcompat.app.AppCompatActivity;

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 {
    EditText name;
    Button click;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name=findViewById(R.id.name);
```

```

        click=findViewById(R.id.click);

        click.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent it=new Intent(MainActivity.this,MainActivity2.class);
                Bundle b=new Bundle();
                b.putString("name",name.getText().toString());
                it.putExtras(b);
                startActivity(it);
            }
        });
    }
}

```

Mainactivity2.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"
    tools:context=".MainActivity2"
    android:orientation="vertical">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/mytext"
        android:text="NAME COMES HERE"
        android:textSize="40dp"
        android:textAlignment="center"/>

</LinearLayout>

```

Mainactivity2.java

```

package com.example.explicitintent162;

import androidx.appcompat.app.AppCompatActivity;

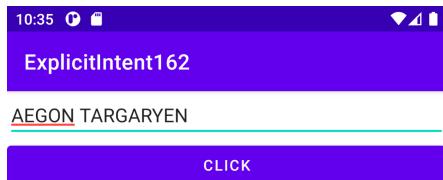
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    TextView myName;
    String namefromfirst=" ";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }
}

```

```
    myName=findViewById(R.id.mytext);
    namefromfirst=getIntent().getStringExtra("name");
    myName.setText(namefromfirst);
}
}
```

OUTPUT:



IMPLICIT INTENTS

PERMISSION:

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.implicitintent162">
<uses-permission android:name="android.permission.CALL_PHONE"/>
<application
    android:allowBackup="true"
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app_name"
    android:roundIcon="@mipmap/ic_launcher_round"
    android:supportsRtl="true"
    android:theme="@style/Theme.ImplicitIntent162">
    <activity
        android:name=".MainActivity"
        android:exported="true">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
</application>

</manifest>
```

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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/myphone"
        android:hint="Enter the phone number"
        android:layout_margin="20dp"/>

    <Button
        android:id="@+id/call"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```
        android:text="CALL"
        android:layout_margin="20dp"/>
</LinearLayout>
```

Java code:

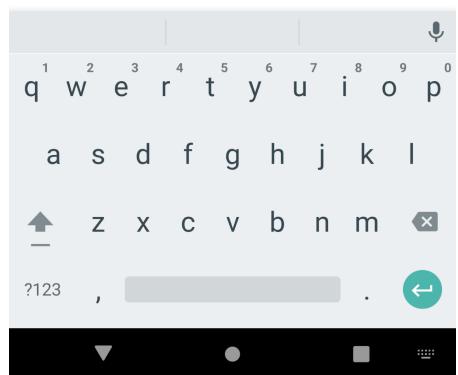
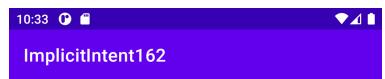
```
package com.example.implicitintent162;

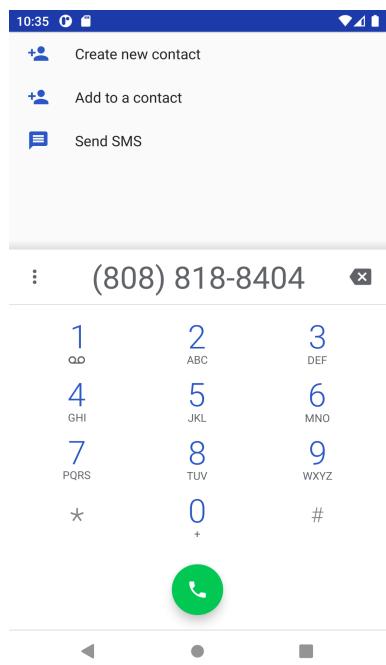
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    EditText phoneNumber;
    Button call;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        call=findViewById(R.id.call);
        phoneNumber=findViewById(R.id.myphone);

        call.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Uri myUri=Uri.parse("tel:"+phoneNumber.getText().toString());
                Intent it=new Intent(Intent.ACTION_DIAL, myUri);
                startActivity(it);
            }
        });
    }
}
```

OUTPUT:





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Lab program 1 Activity Lifecycle

MainActivity.java

```
package com.example.activitylifecycle162;

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_LONG).show();
    }

    @Override
    protected void onStart() {
        super.onStart();
        Toast.makeText(this, "ACTIVITY STARTED", Toast.LENGTH_LONG).show();
    }

    @Override
    protected void onPause() {
        super.onPause();
        Toast.makeText(this, "PAUSED STATE", Toast.LENGTH_LONG).show();
    }

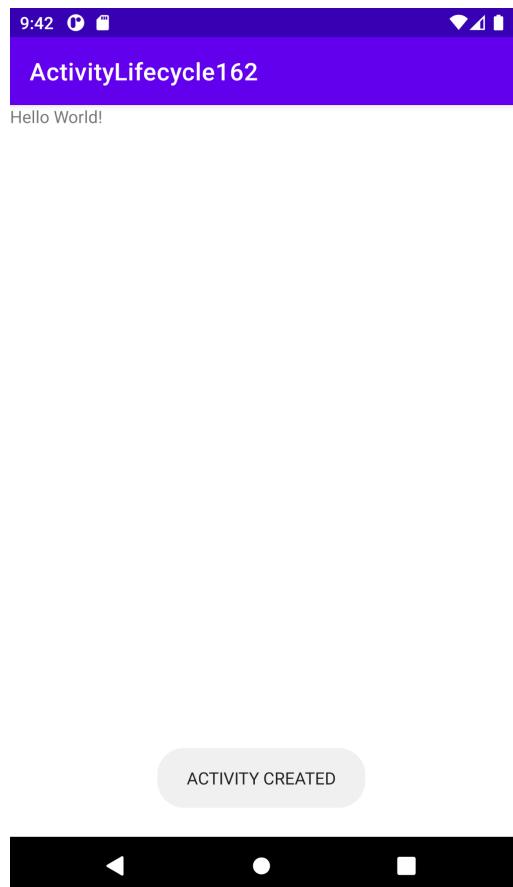
    @Override
    protected void onResume() {
        super.onResume();
        Toast.makeText(this, "RESUMED STATE", Toast.LENGTH_LONG).show();
    }

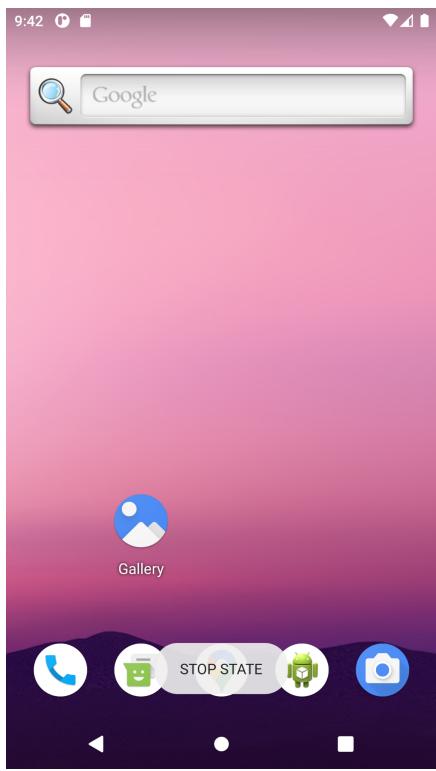
    @Override
    protected void onStop() {
        super.onStop();
        Toast.makeText(this, "STOP STATE", Toast.LENGTH_LONG).show();
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Toast.makeText(this, "DESTROYED STATE", Toast.LENGTH_LONG).show();
    }
}
```

}

OUTPUT:





ACTIVITY STARTED



