1. **Odd Or Even**

**Activity\_main.xml**

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

<TableLayout 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">

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/first"

/>

<EditText

android:id="@+id/eid2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:inputType="text"/>

</TableRow>

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<Button

android:id="@+id/btn1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="odd/even"/>

<TextView

android:id="@+id/eid3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/res"

/>

</TableRow>

</TableLayout>

**Strings.xml**

<resources>

<string name="app\_name">New App</string>

<string name="first">Enter the Number:</string>

<string name="res">Result:</string>

</resources>

**AndroidManifest.xml**

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

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

package="com.example.newapp">

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.NewApp"

tools:targetApi="31">

<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>

**MainActivity.java**

package com.example.newapp;

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 {

Button b;

EditText e1;

TextView t1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

e1=findViewById(R.id.eid2);

t1=findViewById(R.id.eid3);

b=findViewById(R.id.btn1);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String val1=e1.getText().toString();

Integer a=Integer.parseInt(val1);

t1.setText("The result is:");

if(a % 2 == 0)

t1.setText(a + " is even");

else

t1.setText(a+ " is odd");

//Toast.makeText(MainActivity.this, "The sum is:"+sum, Toast.LENGTH\_SHORT).show();

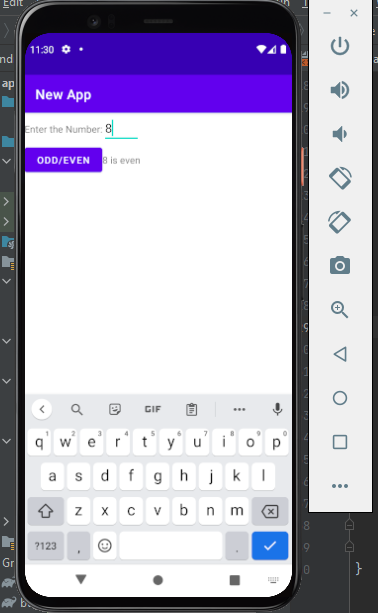
}

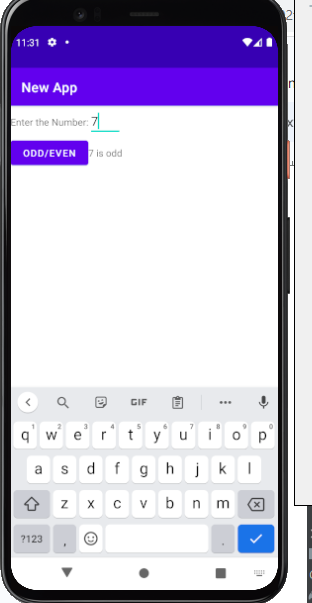
});

}

}

**Output**





**2. Login Form**

**Activity\_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:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/name" />

<EditText

android:id="@+id/user"

android:layout\_width="311dp"

android:layout\_height="wrap\_content"

android:hint="user" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/psw"

/>

<EditText

android:id="@+id/pass"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:hint="\*\*\*\*"

android:inputType="textPassword" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Login" />

</LinearLayout>

**Strings.xml**

<resources>

<string name="app\_name">Login</string>

<string name="name">username: </string>

<string name="psw">Password: </string>

</resources>

**Mainactivity.java**

package com.example.myapplication;

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;

public class MainActivity extends AppCompatActivity {

Button b;

EditText ed1, ed2;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ed1 = findViewById(R.id.user);

ed2 = findViewById(R.id.pass);

b = findViewById(R.id.btn);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String txt1 = ed1.getText().toString().trim();

String txt2 = ed2.getText().toString().trim();

if(txt1.isEmpty() || txt2.isEmpty()){

Toast.makeText(MainActivity.this, "Please enter Username and Password", Toast.LENGTH\_SHORT).show();

}

else if(txt1.equals("Rijul") || txt2.equals("root")) {

Toast.makeText(MainActivity.this, "Login Successful", Toast.LENGTH\_LONG).show();

}

else{

Toast.makeText(MainActivity.this, "Login Failed", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

**Manifest.xml**

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

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

package="com.example.myapplication">

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.MyApplication"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

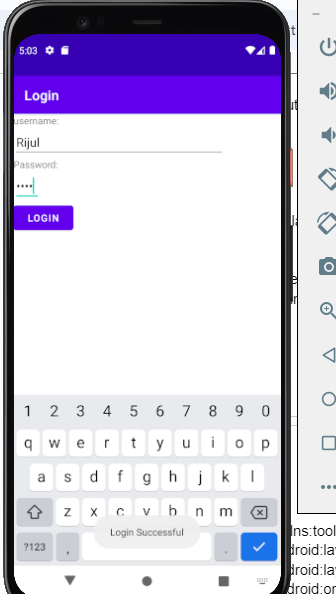
</intent-filter>

</activity>

</application>

</manifest>

**Output**



**3. Calculator**

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

<TableLayout 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">

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/num1"

/>

<EditText

android:id="@+id/num1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

/>

</TableRow>

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/num2"

/>

<EditText

android:id="@+id/num2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

/>

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<Button

android:id="@+id/plus"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="+" />

<Button

android:id="@+id/minus"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="-" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<Button

android:id="@+id/star"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="\*" />

<Button

android:id="@+id/slash"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="/" />

</TableRow>

<TableRow

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<Button

android:id="@+id/equal"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="=" />

<Button

android:id="@+id/C"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="C" />

</TableRow>

<TableRow>

<TextView

android:id="@+id/res"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:text="Result: " />

</TableRow>

</TableLayout>

<resources>

<string name="app\_name">App Record</string>

<string name="num1">Enter the first number:</string>

<string name="num2">Enter the second number:</string>

<string name="res">Result: </string>

</resources>

package com.example.apprecord;

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;

public class MainActivity extends AppCompatActivity {

EditText ed1, ed2;

Button plus, minus, multiply, divide, clear, equal;

TextView result;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ed1 = findViewById(R.id.num1);

ed2 = findViewById(R.id.num2);

plus = findViewById(R.id.plus);

minus = findViewById(R.id.minus);

multiply = findViewById(R.id.star);

divide = findViewById(R.id.slash);

clear = findViewById(R.id.C);

equal = findViewById(R.id.equal);

result = findViewById(R.id.res);

plus.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

calculate('+');

}

});

minus.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

calculate('-');

}

});

multiply.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

calculate('\*');

}

});

divide.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

calculate('/');

}

});

clear.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

ed1.setText("");

ed2.setText("");

result.setText("Result: ");

}

});

equal.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

calculate('=');

}

});

}

private void calculate(char operator) {

String num1Str = ed1.getText().toString();

String num2Str = ed2.getText().toString();

if (num1Str.isEmpty() || num2Str.isEmpty()) {

result.setText("Result: Please enter both numbers.");

return;

}

double num1 = Double.parseDouble(num1Str);

double num2 = Double.parseDouble(num2Str);

double resultValue = 0.0;

switch (operator) {

case '+':

resultValue = num1 + num2;

break;

case '-':

resultValue = num1 - num2;

break;

case '\*':

resultValue = num1 \* num2;

break;

case '/':

if (num2 == 0) {

result.setText("Result: Cannot divide by zero.");

return;

}

resultValue = num1 / num2;

break;

case '=':

break;

}

result.setText("Result: " + resultValue);

}

}

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

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

package="com.example.apprecord">

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.AppRecord"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

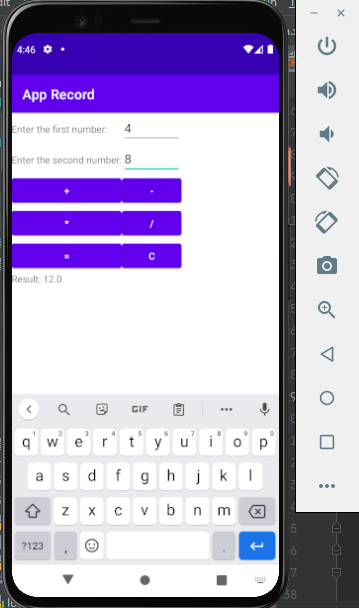
</intent-filter>

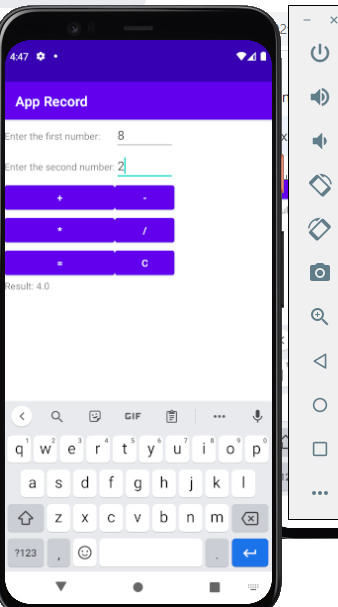
</activity>

</application>

</manifest>

**Output**





**4. . Write a program to display following output using Table layout.**

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

<TableLayout 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">

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/name" />

<EditText

android:id="@+id/user"

android:layout\_width="311dp"

android:layout\_height="wrap\_content"

android:hint="user" />

</TableRow>

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/psw"

/>

<EditText

android:id="@+id/pass"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:hint="\*\*\*\*"

android:inputType="textPassword" />

</TableRow>

<TableRow

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

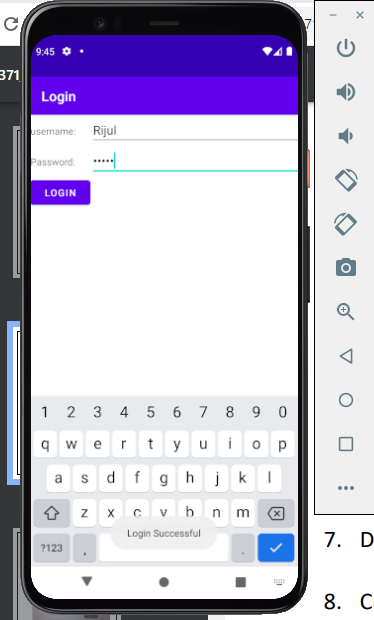
android:layout\_height="wrap\_content"

android:text="Login" />

</TableRow>

</TableLayout>

**Output**

****

**5. ActivityLifeCycle**

**ActivityMain.java**

**package com.example.activitylifecycle;**

**import androidx.appcompat.app.AppCompatActivity;**

**import android.os.Bundle;**

**import android.util.Log;**

**public class MainActivity extends AppCompatActivity {**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**Log.d("lifecycle","onCreate invoked");**

**}**

**@Override**

**protected void onStart()**

**{**

**super.onStart();**

**Log.d("lifecycle","onStart invoked");**

**}**

**@Override**

**protected void onResume()**

**{**

**super.onResume();**

**Log.d("lifecycle","onResume invoked");**

**}**

**@Override**

**protected void onPause()**

**{**

**super.onPause();**

**Log.d("lifecycle","onPause invoked");**

**}**

**@Override**

**protected void onStop()**

**{**

**super.onStop();**

**Log.d("lifecycle","onStop invoked");**

**}**

**@Override**

**protected void onRestart()**

**{**

**super.onRestart();**

**Log.d("lifecycle","onRestart invoked");**

**}**

**@Override**

**protected void onDestroy()**

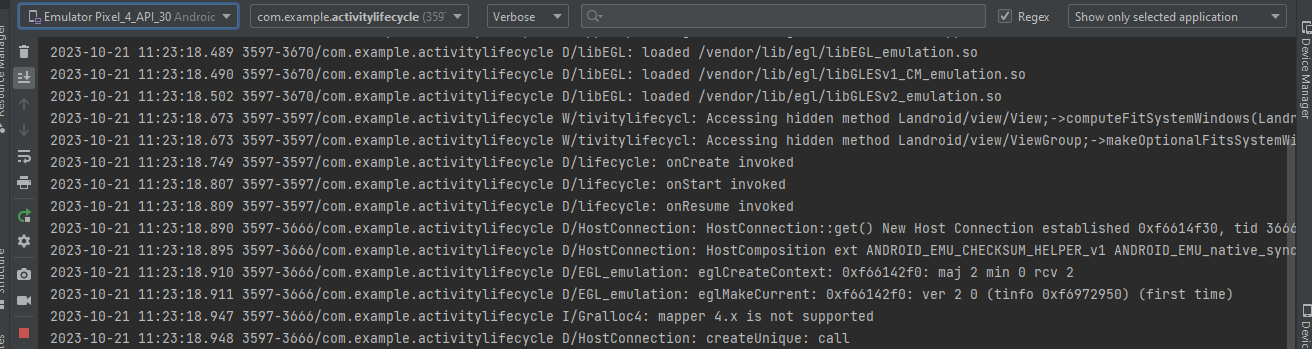
**{**

**super.onDestroy();**

**Log.d("lifecycle","onDestroy invoked");**

**}**

**}**

****

**6. Armstrong**

**<?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/textView2"**

**android:layout\_width="287dp"**

**android:layout\_height="30dp"**

**android:text="Check a number is Amstrong or Not..!"**

**android:textAlignment="center"**

**android:textColor="#0426DD"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintStart\_toStartOf="parent"**

**tools:layout\_editor\_absoluteY="46dp"**

**tools:ignore="MissingConstraints" />**

**<Button**

**android:id="@+id/b1"**

**android:layout\_width="136dp"**

**android:layout\_height="41dp"**

**android:text="Check"**

**app:layout\_constraintBottom\_toBottomOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintHorizontal\_bias="0.243"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintTop\_toTopOf="parent"**

**app:layout\_constraintVertical\_bias="0.298" />**

**<Button**

**android:id="@+id/button2"**

**android:layout\_width="137dp"**

**android:layout\_height="39dp"**

**android:text="Reset"**

**app:layout\_constraintBottom\_toBottomOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintHorizontal\_bias="0.806"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintTop\_toTopOf="parent"**

**app:layout\_constraintVertical\_bias="0.297" />**

**<EditText**

**android:id="@+id/mynum"**

**style="@style/Widget.Material3.AutoCompleteTextView.FilledBox"**

**android:layout\_width="291dp"**

**android:layout\_height="55dp"**

**android:layout\_marginTop="108dp"**

**android:background="#ECECEC"**

**android:ems="10"**

**android:inputType="textPersonName"**

**android:selectAllOnFocus="false"**

**android:singleLine="false"**

**android:textAllCaps="false"**

**android:textAppearance="@style/TextAppearance.AppCompat.Medium"**

**android:textColor="#978A8A"**

**android:textStyle="italic"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintTop\_toTopOf="parent" />**

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

**package com.example.armstrong;**

**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;**

**public class MainActivity extends AppCompatActivity {**

**EditText mynum;**

**Button b1;**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**mynum = findViewById(R.id.mynum);**

**b1 = findViewById(R.id.b1);**

**b1.setOnClickListener(new View.OnClickListener() {**

**@Override**

**public void onClick(View view) {**

**String n = mynum.getText().toString();**

**int num = Integer.parseInt(n);**

**int originalNum, remainder, result = 0;**

**originalNum = num;**

**while (originalNum != 0) {**

**remainder = originalNum % 10;**

**result += Math.pow(remainder, 3);**

**originalNum /= 10;**

**}**

**if (result == num) {**

**Toast.makeText(MainActivity.this, num + " is an Armstrong number", Toast.LENGTH\_SHORT).show();**

**} else {**

**Toast.makeText(MainActivity.this, num + " is not an Armstrong number", Toast.LENGTH\_SHORT).show();**

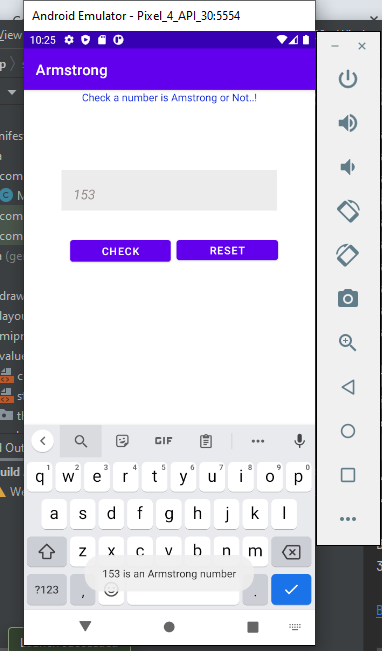
**}**

**}**

**});**

**}**

**}**



**7. Calculator(grid…)**

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

<TableLayout 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">

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="SIMPLE CALCULATOR"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Result"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<EditText

android:id="@+id/edit1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:inputType="text"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<Button

android:id="@+id/bseven"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="7"

/>

<Button

android:id="@+id/beight"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="8"

/>

<Button

android:id="@+id/bnine"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="9"

/>

<Button

android:id="@+id/bdiv"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="/"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<Button

android:id="@+id/bfour"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="4"

/>

<Button

android:id="@+id/bfive"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="5"

/>

<Button

android:id="@+id/bsix"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="6"

/>

<Button

android:id="@+id/bmultiply"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="\*"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<Button

android:id="@+id/bone"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="1"

/>

<Button

android:id="@+id/btwo"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="2"

/>

<Button

android:id="@+id/bthree"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="3"

/>

<Button

android:id="@+id/bsub"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="-"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<Button

android:id="@+id/bdot"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="."

/>

<Button

android:id="@+id/bzero"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="0"

/>

<Button

android:id="@+id/bequal"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="="

/>

<Button

android:id="@+id/badd"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="+"

/>

</TableRow>

<TableRow

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content">

<Button

android:id="@+id/bclear"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_weight="1"

android:text="C"

/>

</TableRow>

</TableLayout>

package com.example.calculatorgrid;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

double input1=0, input2=0;

boolean Addition, Subtract, Multiplication, Division, decimal;

Button b0,b1, b2, b3, b4,b5,b6,b7,b8,b9,bc,beq,bdott,bdivision,bplus,bminus,bproduct;

EditText e1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

e1 = findViewById(R.id.edit1);

b0 = findViewById(R.id.bzero);

b1 = findViewById(R.id.bone);

b2 = findViewById(R.id.btwo);

b3 = findViewById(R.id.bthree);

b4 = findViewById(R.id.bfour);

b5 = findViewById(R.id.bfive);

b6 = findViewById(R.id.bsix);

b7 = findViewById(R.id.bseven);

b8 = findViewById(R.id.beight);

b9 = findViewById(R.id.bnine);

bdivision = findViewById(R.id.bdiv);

bproduct = findViewById(R.id.bmultiply);

bminus = findViewById(R.id.bsub);

bplus = findViewById(R.id.badd);

bc = findViewById(R.id.bclear);

bdott = findViewById(R.id.bdot);

beq = findViewById(R.id.bequal);

b0.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"0");

}

});

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"1");

}

});

b2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"2");

}

});

b3.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"3");

}

});

b4.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"4");

}

});

b5.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"5");

}

});

b6.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"6");

}

});

b7.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"7");

}

});

b8.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"8");

}

});

b9.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText(e1.getText()+"9");

}

});

bplus.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (e1.getText().length() != 0) {

input1 = Float.parseFloat(e1.getText() + "");

Addition = true;

decimal = false;

e1.setText(null);

}

}

});

bminus.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (e1.getText().length() != 0) {

input1 = Float.parseFloat(e1.getText() + "");

Subtract = true;

decimal = false;

e1.setText(null);

}

}

});

bproduct.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (e1.getText().length() != 0) {

input1 = Float.parseFloat(e1.getText() + "");

Multiplication = true;

decimal = false;

e1.setText(null);

}

}

});

bdivision.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (e1.getText().length() != 0) {

input1 = Float.parseFloat(e1.getText() + "");

Division = true;

decimal = false;

e1.setText(null);

}

}

});

beq.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (Addition || Subtract || Multiplication || Division ) {

input2 = Float.parseFloat(e1.getText() + "");

}

if (Addition) {

e1.setText(input1 + input2 + "");

Addition = false;

}

if (Subtract) {

e1.setText(input1 - input2 + "");

Subtract = false;

}

if (Multiplication) {

e1.setText(input1 \* input2 + "");

Multiplication = false;

}

if (Division) {

e1.setText(input1 / input2 + "");

Division = false;

}

}

});

bdott.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (decimal) {

//do nothing or you can show the error

} else {

e1.setText(e1.getText() + ".");

decimal = true;

}

}

});

bc.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

e1.setText("");

input1 = 0.0;

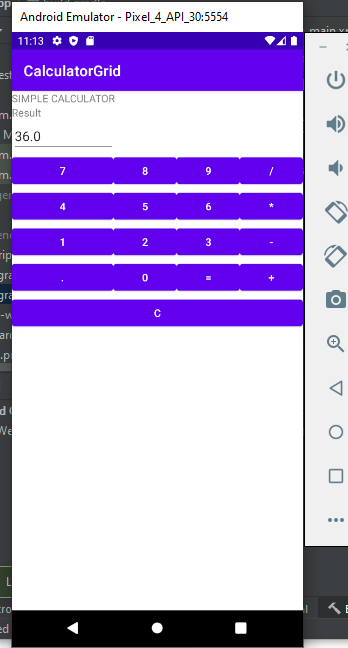
input2 = 0.0;

}

});

}

}



**7. Palindrome**

<?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/editTextNumber"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="number"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.104" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Check Palindrome"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/editTextNumber"

app:layout\_constraintVertical\_bias="0.051" />

<TextView

android:id="@+id/textViewResult"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

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/button"

app:layout\_constraintVertical\_bias="0.077" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.palindrome;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.annotation.NonNull;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private Button b;

private EditText editTextNumber;

private TextView textViewResult;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editTextNumber = findViewById(R.id.editTextNumber);

textViewResult = findViewById(R.id.textViewResult);

b = findViewById(R.id.button);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Get the number from the EditText

String inputNumber = editTextNumber.getText().toString();

// Check if the input is not empty

if (!inputNumber.isEmpty()) {

// Check if the number is a palindrome

boolean isPalindrome = isPalindrome(inputNumber);

// Display the result

if (isPalindrome) {

textViewResult.setText("Palindrome!");

} else {

textViewResult.setText("Not a Palindrome!");

}

} else {

// Handle the case when the input is empty

textViewResult.setText("Please enter a number");

}

}

});

}

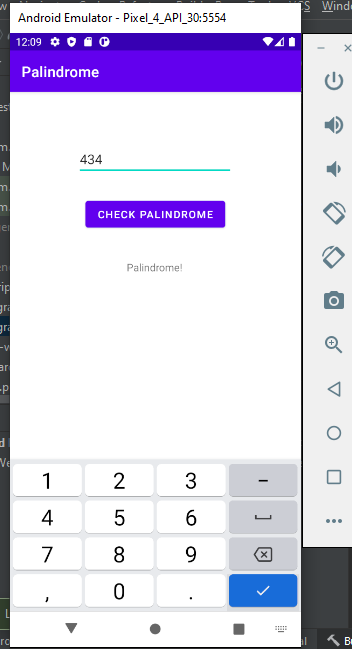
private boolean isPalindrome(@NonNull String number) {

// Compare the original string with its reverse

return number.equals(new StringBuilder(number).reverse().toString());

}

}



8. **SUM OF DIGITS**

**<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**xmlns:tools="http://schemas.android.com/tools"**

**android:id="@+id/activity\_main"**

**android:layout\_width="match\_parent"**

**android:layout\_height="match\_parent"**

**tools:context=".MainActivity">**

**<EditText**

**android:id="@+id/editTextNumber"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="32dp"**

**android:ems="10"**

**android:hint="@string/enter\_number"**

**android:inputType="number" />**

**<Button**

**android:id="@+id/buttonCalculate"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_below="@+id/editTextNumber"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="16dp"**

**android:text="@string/calculate"**

**android:onClick="calculateSum" />**

**<TextView**

**android:id="@+id/textViewResult"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:layout\_below="@+id/buttonCalculate"**

**android:layout\_centerHorizontal="true"**

**android:layout\_marginTop="16dp"**

**android:text="@string/result" />**

**</RelativeLayout>**

**STRINGS.XML**

**<resources>**

**<string name="app\_name">Sumofdigits</string>**

**<string name="calculate">Calculate</string>**

**<string name="enter\_number">Enter number:</string>**

**<string name="result">Result:</string>**

**</resources>**

**MAINACTIVITY.JAVA**

**package com.example.sumofdigits;**

**import android.os.Bundle;**

**import android.view.View;**

**import android.widget.EditText;**

**import android.widget.TextView;**

**import androidx.appcompat.app.AppCompatActivity;**

**public class MainActivity extends AppCompatActivity {**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**}**

**public void calculateSum(View view) {**

**EditText editText = findViewById(R.id.editTextNumber);**

**String numberString = editText.getText().toString();**

**int number = Integer.parseInt(numberString);**

**int sum = 0;**

**while (number > 0) {**

**sum += number % 10;**

**number /= 10;**

**}**

**TextView textView = findViewById(R.id.textViewResult);**

**textView.setText(String.valueOf(sum));**

**}**

**}**

**MAINIFEST.XML**

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

**<manifest xmlns:android="http://schemas.android.com/apk/res/android"**

**xmlns:tools="http://schemas.android.com/tools"**

**package="com.example.sumofdigits">**

**<application**

**android:allowBackup="true"**

**android:dataExtractionRules="@xml/data\_extraction\_rules"**

**android:fullBackupContent="@xml/backup\_rules"**

**android:icon="@mipmap/ic\_launcher"**

**android:label="@string/app\_name"**

**android:roundIcon="@mipmap/ic\_launcher\_round"**

**android:supportsRtl="true"**

**android:theme="@style/Theme.Sumofdigits"**

**tools:targetApi="31">**

**<activity**

**android:name=".MainActivity"**

**android:exported="true">**

**<intent-filter>**

**<action android:name="android.intent.action.MAIN" />**

**<category android:name="android.intent.category.LAUNCHER" />**

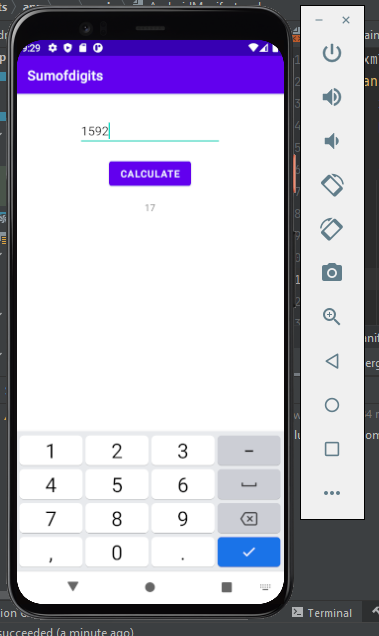
**</intent-filter>**

**</activity>**

**</application>**

**</manifest>**

**OUTPUT**

****

**9. REGISTRATION FORM**

**<?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/editTextName"**

**android:layout\_width="0dp"**

**android:layout\_height="wrap\_content"**

**android:hint="@string/name\_hint"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintTop\_toTopOf="parent" />**

**<EditText**

**android:id="@+id/editTextUsername"**

**android:layout\_width="0dp"**

**android:layout\_height="wrap\_content"**

**android:hint="@string/username\_hint"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintTop\_toBottomOf="@id/editTextName" />**

**<EditText**

**android:id="@+id/editTextPassword"**

**android:layout\_width="0dp"**

**android:layout\_height="wrap\_content"**

**android:hint="@string/password\_hint"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintTop\_toBottomOf="@id/editTextUsername" />**

**<EditText**

**android:id="@+id/editTextEmail"**

**android:layout\_width="0dp"**

**android:layout\_height="wrap\_content"**

**android:hint="@string/email\_hint"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintTop\_toBottomOf="@id/editTextPassword" />**

**<Button**

**android:id="@+id/btnSubmit"**

**android:layout\_width="wrap\_content"**

**android:layout\_height="wrap\_content"**

**android:text="@string/submit\_button"**

**app:layout\_constraintTop\_toBottomOf="@id/editTextEmail"**

**app:layout\_constraintEnd\_toEndOf="parent"**

**app:layout\_constraintStart\_toStartOf="parent"**

**app:layout\_constraintBottom\_toBottomOf="parent" />**

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

**STRINGS.XML**

**<resources>**

**<string name="app\_name">ApplicationForm</string>**

**<string name="name\_hint">Name</string>**

**<string name="username\_hint">Username</string>**

**<string name="password\_hint">Password</string>**

**<string name="email\_hint">Email</string>**

**<string name="submit\_button">Submit</string>**

**</resources>**

**MAINACTIVITY.JAVA**

**package com.example.applicationform;**

**import android.os.Bundle;**

**import android.view.View;**

**import android.widget.Button;**

**import android.widget.EditText;**

**import android.widget.Toast;**

**import androidx.appcompat.app.AppCompatActivity;**

**public class MainActivity extends AppCompatActivity {**

**private EditText editTextName, editTextUsername, editTextPassword, editTextEmail;**

**private Button btnSubmit;**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**editTextName = findViewById(R.id.editTextName);**

**editTextUsername = findViewById(R.id.editTextUsername);**

**editTextPassword = findViewById(R.id.editTextPassword);**

**editTextEmail = findViewById(R.id.editTextEmail);**

**btnSubmit = findViewById(R.id.btnSubmit);**

**btnSubmit.setOnClickListener(new View.OnClickListener() {**

**@Override**

**public void onClick(View view) {**

**String name = editTextName.getText().toString();**

**String username = editTextUsername.getText().toString();**

**String password = editTextPassword.getText().toString();**

**String email = editTextEmail.getText().toString();**

**String message = "Name: " + name + "\nUsername: " + username + "\nPassword: " + password + "\nEmail: " + email;**

**Toast.makeText(getApplicationContext(), message, Toast.LENGTH\_LONG).show();**

**}**

**});**

**}**

**}**

**MAINFEST.XML**

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

**<manifest xmlns:android="http://schemas.android.com/apk/res/android"**

**xmlns:tools="http://schemas.android.com/tools"**

**package="com.example.applicationform">**

**<application**

**android:allowBackup="true"**

**android:dataExtractionRules="@xml/data\_extraction\_rules"**

**android:fullBackupContent="@xml/backup\_rules"**

**android:icon="@mipmap/ic\_launcher"**

**android:label="@string/app\_name"**

**android:roundIcon="@mipmap/ic\_launcher\_round"**

**android:supportsRtl="true"**

**android:theme="@style/Theme.ApplicationForm"**

**tools:targetApi="31">**

**<activity**

**android:name=".MainActivity"**

**android:exported="true">**

**<intent-filter>**

**<action android:name="android.intent.action.MAIN" />**

**<category android:name="android.intent.category.LAUNCHER" />**

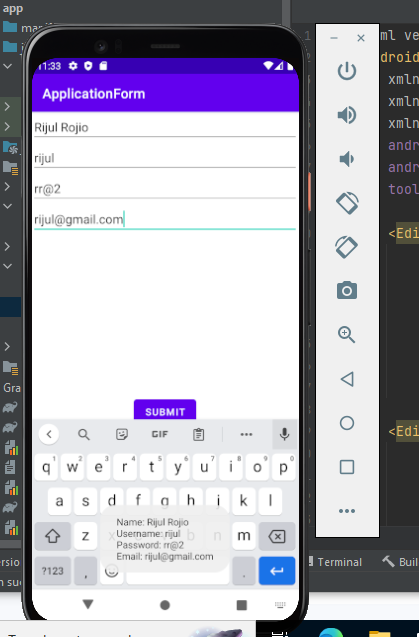
**</intent-filter>**

**</activity>**

**</application>**

**</manifest>**

**OUTPUT**

****

**10. Intents**

1. **package com.example.intents;(Implicit Intent)**

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;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button b=findViewById(R.id.button);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Intent i=new Intent(Intent.ACTION\_VIEW, Uri.parse("https://mail.google.com/"));

startActivity(i);

}

});

}

}

1. **//package com.example.intents;(Explicit)**

**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;**

**public class MainActivity extends AppCompatActivity {**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**Button b=findViewById(R.id.button);**

**b.setOnClickListener(new View.OnClickListener() {**

**@Override**

**public void onClick(View view) {**

**//implicit Intent i=new Intent(Intent.ACTION\_VIEW, Uri.parse("https://mail.google.com/"));**

**//startActivity(i);**

**Intent i=new Intent(MainActivity.this,MainActivity2.class);**

**startActivity(i);**

**}**

**});**

**}**

**}**

1. **package com.example.intents;(Explicit)**

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;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

EditText ed1 = findViewById(R.id.user);

Button b=findViewById(R.id.btn);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

//implicit Intent i=new Intent(Intent.ACTION\_VIEW, Uri.parse("https://mail.google.com/"));

//startActivity(i);

//Intent i=new Intent(MainActivity.this,MainActivity2.class);

// startActivity(i);

String txt1 = ed1.getText().toString().trim();

if(txt1.isEmpty()){

Toast.makeText(MainActivity.this, "Please enter Username", Toast.LENGTH\_SHORT).show();

}

else {

Toast.makeText(MainActivity.this,txt1, Toast.LENGTH\_LONG).show();

}

Intent i=new Intent(MainActivity.this,MainActivity2.class);

i.putExtra("abc",txt1);

startActivity(i);

}

});

}

}

**3. package com.example.intents;(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 {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main2);

TextView t = findViewById(R.id.textView2);

Intent i=getIntent();

String s=i.getStringExtra("abc");

t.setText("Username:"+s);

}

}

**3. <?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:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/name" />

<EditText

android:id="@+id/user"

android:layout\_width="311dp"

android:layout\_height="wrap\_content"

android:hint="username" />

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

</LinearLayout>

**3. <?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">

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

tools:layout\_editor\_absoluteX="130dp"

tools:layout\_editor\_absoluteY="195dp" />

</LinearLayout>

**NEXT Q**

1. **<?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:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/fn" />

<EditText

android:id="@+id/usr"

android:layout\_width="311dp"

android:layout\_height="wrap\_content"

android:hint="fname" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/name" />

<EditText

android:id="@+id/user"

android:layout\_width="311dp"

android:layout\_height="wrap\_content"

android:hint="username" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/psw"

/>

<EditText

android:id="@+id/pass"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:hint="\*\*\*\*"

android:inputType="textPassword" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="@string/mail"

/>

<EditText

android:id="@+id/editTextEmail"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:hint="email"/>

<Button

android:id="@+id/btn"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

</LinearLayout>

**4. package com.example.intents;(Explicit)**

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;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

EditText ed1 = findViewById(R.id.user);

EditText ed2=findViewById(R.id.usr);

EditText ed3=findViewById(R.id.pass);

EditText ed4=findViewById(R.id.editTextEmail);

Button b=findViewById(R.id.btn);

b.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

//implicit Intent i=new Intent(Intent.ACTION\_VIEW, Uri.parse("https://mail.google.com/"));

//startActivity(i);

//Intent i=new Intent(MainActivity.this,MainActivity2.class);

// startActivity(i);

String txt1 = ed1.getText().toString().trim();

String txt2 = ed2.getText().toString().trim();

String txt3 = ed3.getText().toString().trim();

String txt4 = ed4.getText().toString().trim();

Toast.makeText(MainActivity.this,txt1, Toast.LENGTH\_LONG).show();

Toast.makeText(MainActivity.this,txt2, Toast.LENGTH\_LONG).show();

Toast.makeText(MainActivity.this,txt3, Toast.LENGTH\_LONG).show();

Toast.makeText(MainActivity.this,txt4, Toast.LENGTH\_LONG).show();

Intent i=new Intent(MainActivity.this,MainActivity2.class);

i.putExtra("abc",txt1);

i.putExtra("def",txt2);

i.putExtra("ghi",txt3);

i.putExtra("jkl",txt4);

startActivity(i);

}

});

}

}

**4. <?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">

<TextView

android:id="@+id/pass"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

tools:layout\_editor\_absoluteX="130dp"

tools:layout\_editor\_absoluteY="195dp" />

<TextView

android:id="@+id/usr"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

tools:layout\_editor\_absoluteX="130dp"

tools:layout\_editor\_absoluteY="195dp" />

<TextView

android:id="@+id/user"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

tools:layout\_editor\_absoluteX="130dp"

tools:layout\_editor\_absoluteY="195dp" />

<TextView

android:id="@+id/editTextEmail"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

tools:layout\_editor\_absoluteX="130dp"

tools:layout\_editor\_absoluteY="195dp" />

</LinearLayout>

**4. package com.example.intents;**

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 {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main2);

TextView t = findViewById(R.id.pass);

TextView o = findViewById(R.id.user);

TextView r = findViewById(R.id.usr);

TextView u = findViewById(R.id.editTextEmail);

Intent i=getIntent();

String s=i.getStringExtra("abc");

o.setText("name:"+s);

String s2=i.getStringExtra("def");

r.setText("Username:"+s2);

String s3=i.getStringExtra("ghi");

t.setText("password:"+s3);

String s4=i.getStringExtra("jkl");

u.setText("Email:"+s4);

}

}

<resources>

<string name="app\_name">Intents</string>

<string name="name">username: </string>

<string name="fn">Name:</string>

<string name="psw">Password:</string>

<string name="mail">EmailId:</string>

</resources>

**11. package com.example.framelayout;**

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ImageView i1=findViewById(R.id.imageView5);

ImageView i2=findViewById(R.id.imageView6);

i2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

i1.setVisibility(View.VISIBLE);

i2.setVisibility(View.GONE);

}

});

i1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

i2.setVisibility(View.VISIBLE);

i1.setVisibility(View.GONE);

}

});

}

}

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

<FrameLayout 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">

<ImageView

android:id="@+id/imageView5"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:scaleType="fitXY"

app:srcCompat="@drawable/img" />

<ImageView

android:id="@+id/imageView6"

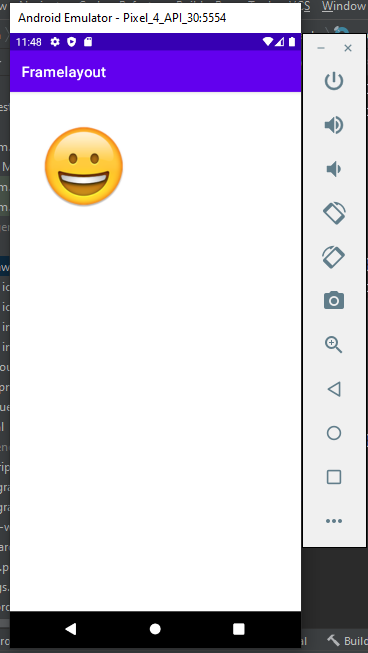
android:layout\_width="190dp"

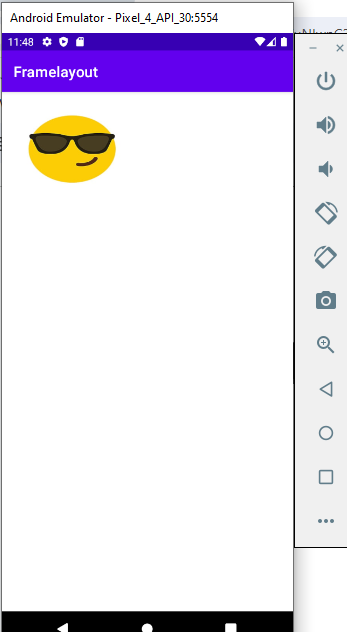
android:layout\_height="147dp"

android:scaleType="fitXY"

app:srcCompat="@drawable/img\_1" />

</FrameLayout>





12.

package com.example.co4;

import android.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;

import android.content.DialogInterface;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

public class MainActivity extends AppCompatActivity {

private Context context=this;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button b1=findViewById(R.id.button2);

b1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

AlertDialog.Builder alert=new AlertDialog.Builder(context);

alert.setTitle("AlertBox");

alert.setMessage("Do You Want to Close").setPositiveButton("yes",new DialogInterface.OnClickListener()

{

@Override

public void onClick(DialogInterface dialogInterface, int i)

{

MainActivity.this.finish();

}

}).setNegativeButton("No", new DialogInterface.OnClickListener() {

@Override

public void onClick(DialogInterface dialogInterface, int i) {

}

});

AlertDialog obj= alert.create();

obj.show();

}

});

}

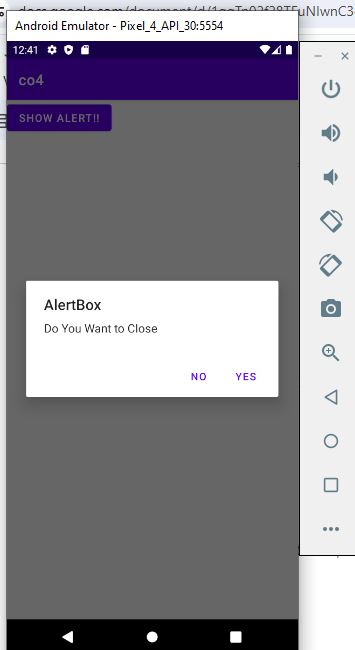
public void setC(Context c)

{

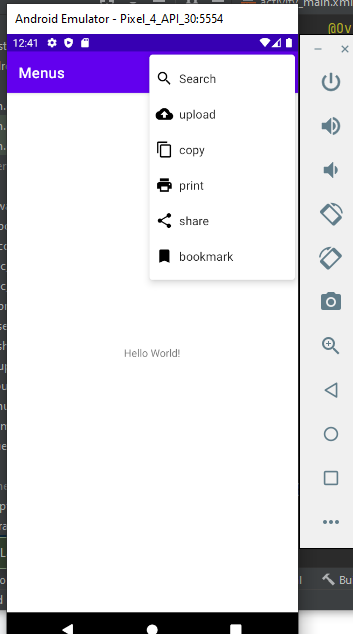
this.context=c;

}

}



**13.Android Menus**



package com.example.menus;

import androidx.annotation.NonNull;

import androidx.appcompat.app.AppCompatActivity;

import androidx.appcompat.view.menu.MenuBuilder;

import android.annotation.SuppressLint;

import android.content.ClipData;

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);

}

@SuppressLint("RestrictedApi")

@Override

public boolean onCreateOptionsMenu(Menu menu) {

MenuInflater inflater = getMenuInflater();

inflater.inflate(R.menu.option\_menus,menu);

if(menu instanceof MenuBuilder){

MenuBuilder m= (MenuBuilder) menu;

m.setOptionalIconsVisible(true);

}

return super.onCreateOptionsMenu(menu);

}

@Override

public boolean onOptionsItemSelected(@NonNull MenuItem item) {

Toast.makeText(this,"Selected item:" +item.getTitle(),Toast.LENGTH\_SHORT).show();

switch (item.getItemId()){

case R.id.search\_item:

return true;

case R.id.upload\_item:

return true;

case R.id.copy\_item:

return true;

case R.id.print\_item:

return true;

case R.id.share\_item:

return true;

case R.id.bookmark\_item:

return true;

default:

return super.onOptionsItemSelected(item);

}

}

}

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

<menu xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools"

tools:content=".MainActivity">

<item android:id="@+id/search\_item"

android:title="Search"

android:icon="@drawable/search"/>

<item android:id="@+id/upload\_item"

android:title="upload"

android:icon="@drawable/upload"/>

<item android:id="@+id/copy\_item"

android:title="copy"

android:icon="@drawable/copy"/>

<item android:id="@+id/print\_item"

android:title="print"

android:icon="@drawable/print"/>

<item android:id="@+id/share\_item"

android:title="share"

android:icon="@drawable/share"/>

<item android:id="@+id/bookmark\_item"

android:title="bookmark"

android:icon="@drawable/bookmark"/>

</menu>

**14. Validations**   
  
<?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">

<androidx.constraintlayout.widget.Guideline

android:id="@+id/guideline"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:orientation="horizontal"

app:layout\_constraintGuide\_percent=".15" />

<com.google.android.material.textview.MaterialTextView

android:id="@+id/textView\_loginTitle"

style="@style/TextAppearance.MaterialComponents.Headline4"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="login"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="@+id/guideline" />

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/inputLayout\_username"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

app:endIconMode="clear\_text"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/textView\_loginTitle">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/inputEditText\_username"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="text"

android:hint="username"

android:nextFocusForward="@id/inputEditText\_mobile"

android:singleLine="true" />

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/inputLayout\_mobile"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

app:endIconMode="clear\_text"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/inputLayout\_username">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/inputEditText\_mobile"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="number"

android:hint="contact"

android:nextFocusForward="@id/inputLayout\_email"

android:singleLine="true" />

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/inputLayout\_email"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

app:endIconMode="clear\_text"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/inputLayout\_mobile">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/inputEditText\_email"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="email"

android:inputType="textEmailAddress"

android:nextFocusForward="@id/inputLayout\_password"

android:singleLine="true" />

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.textfield.TextInputLayout

android:id="@+id/inputLayout\_password"

style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

app:endIconMode="password\_toggle"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/inputLayout\_email">

<com.google.android.material.textfield.TextInputEditText

android:id="@+id/inputEditText\_password"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="password"

android:imeOptions="actionDone"

android:inputType="textPassword"

android:singleLine="true" />

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.button.MaterialButton

android:id="@+id/button\_login"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="32dp"

android:insetTop="0dp"

android:insetBottom="0dp"

android:text="login"

android:textAllCaps="false"

android:onClick="Validate"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/inputLayout\_password" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.formvalidation;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import com.google.android.material.textfield.TextInputLayout;

import java.util.regex.Pattern;

public class MainActivity extends AppCompatActivity {

TextInputLayout Username,Email,Mobile,Password;

private static final Pattern PASSWORD\_PATTERN =

Pattern.compile("^" +

"(?=.\*[0-9])" + //at least 1 digit

"(?=.\*[a-z])" + //at least 1 lower case letter

"(?=.\*[A-Z])" + //at least 1 upper case letter

"(?=.\*[a-zA-Z])" + //any letter

"(?=.\*[@#$%^&+=])" + //at least 1 special character

"(?=S+$)" + //no white spaces

".{4,}" + //at least 4 characters

"$");

// Pattern.compile("^" +

// "(?=.\*[@#$%^&+=])" + // at least 1 specialcharacter

// "(?=\\S+$)" + // no white spaces

// ".{4,}" + // at least 4 characters

// "$");

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Username=findViewById(R.id.inputLayout\_username);

Email=findViewById(R.id.inputLayout\_email);

Mobile=findViewById(R.id.inputLayout\_mobile);

Password=findViewById(R.id.inputLayout\_password);

}

public void Validate(View view){

if (!validatePhoneNumber() | !validateUsername() | !validateEmail()

| !validatePassword()) {

return;

}

}

private boolean validateUsername() {

String val = Username.getEditText().getText().toString().trim();

String checkspaces = "^[A-Za-z][A-Za-z0-9\_]{1,20}$";

if (val.isEmpty()) {

Username.setError("Field can not be empty");

return false;

} else if (val.length() > 20) {

Username.setError("Username is too large!");

return false;

} else if (!val.matches(checkspaces)) {

Username.setError("No White spaces are allowed!");

return false;

} else {

Username.setError(null);

Username.setErrorEnabled(false);

return true;

}

}

private boolean validateEmail() {

String val = Email.getEditText().getText().toString().trim();

String checkEmail = "[a-zA-Z0-9.\_-]+@[a-z]+.+[a-z]+";

if (val.isEmpty()) {

Email.setError("Field can not be empty");

return false;

} else if (!val.matches(checkEmail)) {

Email.setError("Invalid Email!");

return false;

} else {

Email.setError(null);

Email.setErrorEnabled(false);

return true;

}

}

// private boolean validatePassword() {

// String val = Password.getEditText().getText().toString().trim();

// String checkPassword = "^" +

// //"(?=.\*[0-9])" + //at least 1 digit

// //"(?=.\*[a-z])" + //at least 1 lower case letter

// //"(?=.\*[A-Z])" + //at least 1 upper case letter

// "(?=.\*[a-zA-Z])" + //any letter

// //"(?=.\*[@#$%^&+=])" + //at least 1 special character

// "(?=S+$)" + //no white spaces

// ".{4,}" + //at least 4 characters

// "$";

//

// if (val.isEmpty()) {

// Password.setError("Field can not be empty");

// return false;

// } else if (!val.matches(checkPassword)) {

// Password.setError("Password should contain 4 characters!");

// return false;

// } else {

// Password.setError(null);

// Password.setErrorEnabled(false);

// return true;

// }

// }

private boolean validatePhoneNumber() {

String val = Mobile.getEditText().getText().toString().trim();

String MobilePattern = "[0-9]{10}";

if (val.isEmpty()) {

Mobile.setError("Enter valid phone number");

return false;

} else if (!val.matches(MobilePattern)) {

Mobile.setError("No White spaces are allowed!");

return false;

} else {

Mobile.setError(null);

Mobile.setErrorEnabled(false);

return true;

}

}

private boolean validatePassword() {

String passwordInput =

Password.getEditText().getText().toString().trim();

// if password field is empty

// it will display error message "Field can not be empty"

if (passwordInput.isEmpty()) {

Password.setError("Field can not be empty");

return false;

}

// if password does not matches to the pattern

// it will display an error message "Password is too weak"

else if (!PASSWORD\_PATTERN.matcher(passwordInput).matches()) {

Password.setError("Password is too weak");

return false;

} else {

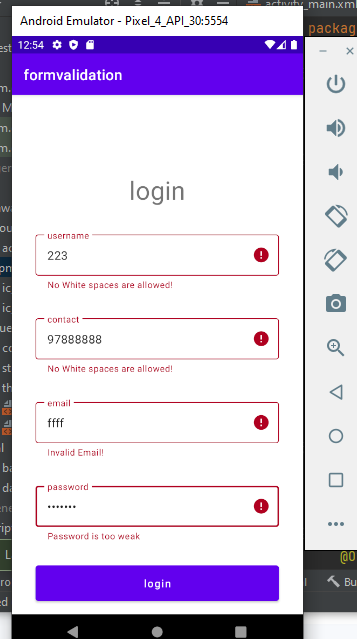
Password.setError(null);

return true;

}

}

}



**SharedPreferences**

import android.content.Intent;

import android.content.SharedPreferences;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class LoginActivity extends AppCompatActivity {

private EditText usernameEditText;

private EditText passwordEditText;

private Button loginButton;

private SharedPreferences sharedPreferences;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_login);

usernameEditText = findViewById(R.id.usernameEditText);

passwordEditText = findViewById(R.id.passwordEditText);

loginButton = findViewById(R.id.loginButton);

sharedPreferences = getSharedPreferences("MyPrefs", MODE\_PRIVATE);

loginButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

login();

}

});

}

private void login() {

String username = usernameEditText.getText().toString();

String password = passwordEditText.getText().toString();

String savedUsername = sharedPreferences.getString("username", "rijul");

String savedPassword = sharedPreferences.getString("password", "101");

if (username.equals(savedUsername) && password.equals(savedPassword)) {

// Login successful, navigate to WelcomeActivity

Intent intent = new Intent(LoginActivity.this, WelcomeActivity.class);

intent.putExtra("username", username);

startActivity(intent);

} else {

// Login failed, display a toast

Toast.makeText(LoginActivity.this, "Invalid username or password", Toast.LENGTH\_SHORT).show();

}

}

}

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class WelcomeActivity extends AppCompatActivity {

private TextView welcomeTextView;

private Button logoutButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_welcome);

welcomeTextView = findViewById(R.id.welcomeTextView);

logoutButton = findViewById(R.id.logoutButton);

// Get the username from the intent

String username = getIntent().getStringExtra("username");

// Display welcome message

welcomeTextView.setText("Welcome, " + username + "!");

logoutButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

logout();

}

});

}

private void logout() {

// Navigate back to LoginActivity

Intent intent = new Intent(WelcomeActivity.this, LoginActivity.class);

startActivity(intent);

finish(); // Close the current activity to prevent going back to it using the back button

}

}

<?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=".LoginActivity">

<EditText

android:id="@+id/usernameEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Username"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

<EditText

android:id="@+id/passwordEditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Password"

android:layout\_below="@id/usernameEditText"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"

android:inputType="textPassword"/>

<Button

android:id="@+id/loginButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Login"

android:layout\_below="@id/passwordEditText"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

</RelativeLayout>

<?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=".WelcomeActivity">

<TextView

android:id="@+id/welcomeTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

<Button

android:id="@+id/logoutButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Logout"

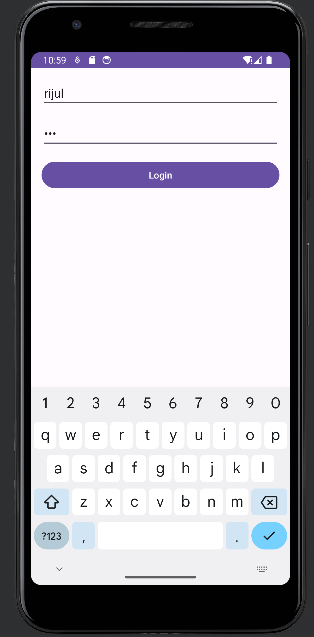
android:layout\_below="@id/welcomeTextView"

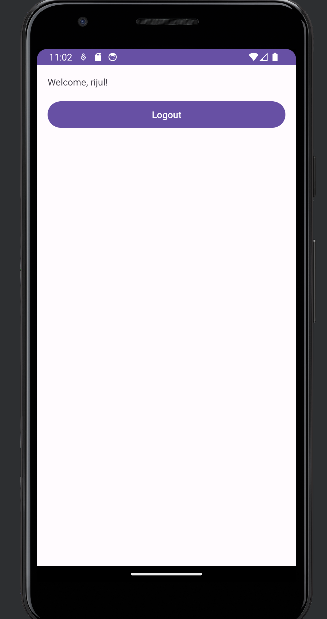
android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

</RelativeLayout>

**Output  
**

****

**ArrayAdapter**

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

<RelativeLayout 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">

<ListView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/simpleListView"

android:divider="#123"

android:dividerHeight="2dp" />

</RelativeLayout>

<?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=".item\_list">

<TextView

android:id="@+id/ListView"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:padding="12dp"

android:textColor="#123"

/>

</LinearLayout>

package com.example.adapter;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.Gravity;

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 simpleList;

String planet[]={

"earth","mars","jupiter","saturn","uranus","venus","neptune"

};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

simpleList=(ListView) findViewById(R.id.simpleListView);

ArrayAdapter< String > arrayAdapter = new ArrayAdapter< String >(this,R.layout.activity\_item\_list,R.id.ListView,planet);

simpleList.setAdapter(arrayAdapter);

simpleList.setOnItemClickListener(new AdapterView.OnItemClickListener() {

@Override

public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {

String item=(String)simpleList.getItemAtPosition(i);

Toast toast = Toast.makeText(getApplicationContext(),"Your seleted planet ="+item,Toast.LENGTH\_LONG);

toast.setGravity(Gravity.CENTER,30,150);

toast.show();

}

});

}

}

package com.example.adapter;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class item\_list extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

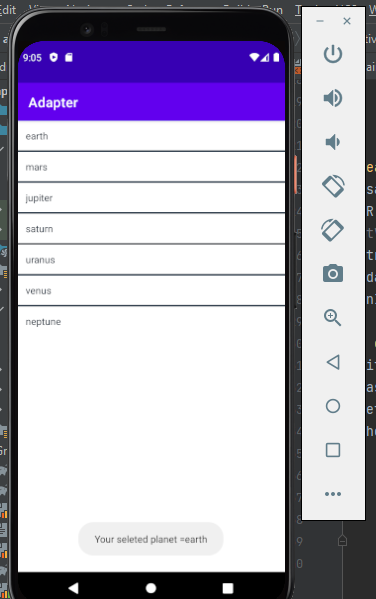
super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_item\_list);

}

}

**Output**

****

**Exception Handling(Sample)**

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText num1EditText;

private EditText num2EditText;

private TextView resultTextView;

private Button divideButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

num1EditText = findViewById(R.id.num1EditText);

num2EditText = findViewById(R.id.num2EditText);

resultTextView = findViewById(R.id.resultTextView);

divideButton = findViewById(R.id.divideButton);

divideButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

divideNumbers();

}

});

}

private void divideNumbers() {

try {

// Get the input numbers from the EditText fields

double num1 = Double.parseDouble(num1EditText.getText().toString());

double num2 = Double.parseDouble(num2EditText.getText().toString());

// Attempt to perform the division

double result = num1 / num2;

// Display the result

resultTextView.setText("Result: " + result);

} catch (NumberFormatException e) {

// Handle the case where the input is not a valid number

resultTextView.setText("Error: Please enter valid numbers");

} catch (ArithmeticException e) {

// Handle the case where division by zero occurs

resultTextView.setText("Error: Division by zero is not allowed");

}

}

}

<?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">

<EditText

android:id="@+id/num1EditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter number 1"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

<EditText

android:id="@+id/num2EditText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter number 2"

android:layout\_below="@id/num1EditText"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

<Button

android:id="@+id/divideButton"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Divide"

android:layout\_below="@id/num2EditText"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

<TextView

android:id="@+id/resultTextView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text=""

android:layout\_below="@id/divideButton"

android:layout\_marginTop="16dp"

android:layout\_marginLeft="16dp"

android:layout\_marginRight="16dp"/>

</RelativeLayout>

**GridView**<?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">

<GridView

android:id="@+id/gv1"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:verticalSpacing="2dip"

android:horizontalSpacing="5dip"

android:numColumns="auto\_fit"

android:columnWidth="130dip"

android:stretchMode="columnWidth"

android:gravity="center"/>

</LinearLayout>

<?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=".grid\_list">

<TextView

android:id="@+id/TextView"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:padding="12dp"

android:textColor="#123"

/>

</LinearLayout>

package com.example.gridview;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.GridView;

import android.widget.ArrayAdapter;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity implements AdapterView.OnItemClickListener {

TextView selectedopt;

String planet[] = {

"earth", "mars", "jupiter", "saturn", "uranus", "venus", "neptune"

};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

selectedopt = (TextView) findViewById(R.id.TextView);

GridView g = (GridView) findViewById(R.id.gv1);

ArrayAdapter< String > arrayAdapter = new ArrayAdapter<String>( this,R.layout.activity\_grid\_list,R.id.TextView,planet);

g.setAdapter(arrayAdapter);

g.setOnItemClickListener(this);

}

@Override

public void onItemClick(AdapterView<?> adapterView, View view, int position, long id) {

selectedopt.setText("You have selected " + planet[position]);

}

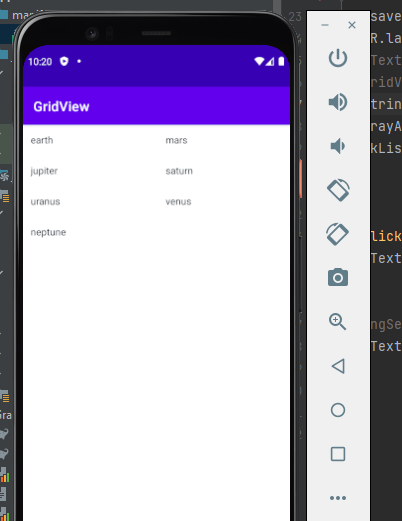
public void onNothingSelected(AdapterView<?> parent) {

selectedopt.setText("");

}

}

**Output**

****

**GridView(images)**<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout 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">

<GridView

android:id="@+id/gv1"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:verticalSpacing="2dip"

android:horizontalSpacing="5dip"

android:numColumns="3"

android:stretchMode="columnWidth"

android:gravity="center"

/>

</RelativeLayout>

<?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"

android:gravity="center"

tools:context=".grid\_list">

<ImageView

android:id="@+id/planet\_img"

android:layout\_width="100dp"

android:layout\_height="100dp"

android:scaleType="centerCrop"/>

<TextView

android:id="@+id/TextView"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_gravity="center"

android:padding="12dp"

android:textSize="18sp"

android:textColor="#123"

android:layout\_marginTop="5dp"

/>

</LinearLayout>

package com.example.gridview;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.view.ViewGroup;

import android.widget.AdapterView;

import android.widget.ImageView;

import android.widget.BaseAdapter;

import android.widget.GridView;

import android.widget.ArrayAdapter;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

String planet[] = {

"earth", "mars", "jupiter", "saturn"

};

int[] planetimages = {R.drawable.img, R.drawable.img\_1, R.drawable.img\_2, R.drawable.img\_3, R.drawable.img\_4};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

GridView g = findViewById(R.id.gv1);

CustomAdapter customAdapter = new CustomAdapter();

g.setAdapter(customAdapter);

}

private class CustomAdapter extends BaseAdapter {

@Override

public int getCount() {

return planet.length;

}

@Override

public Object getItem(int position) {

return null;

}

@Override

public long getItemId(int position) {

return 0;

}

@Override

public View getView(int position, View convertView, ViewGroup parent) {

View view = getLayoutInflater().inflate(R.layout.activity\_grid\_list, null);

TextView planetName = view.findViewById(R.id.TextView);

ImageView images = view.findViewById(R.id.planet\_img);

planetName.setText((planet[position]));

images.setImageResource(planetimages[position]);

images.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

Toast.makeText(MainActivity.this, planet[position], Toast.LENGTH\_SHORT).show();

}

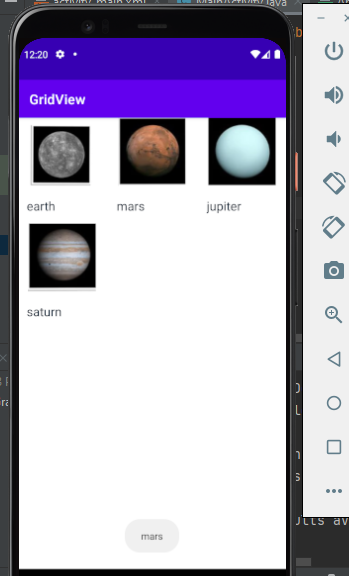
});

return view;

}

}

}

**Output  
  
**

**Fragment**

<?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"

android:padding="16dp">

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="0dp"

android:layout\_weight="1"

android:orientation="vertical"

android:gravity="center">

<Button

android:id="@+id/FragmentOne"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Fragment One" />

<Button

android:id="@+id/FragmentTwo"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Fragment Two" />

</LinearLayout>

<FrameLayout

android:id="@+id/fragment"

android:layout\_width="match\_parent"

android:layout\_height="0dp"

android:layout\_weight="1"/>

</LinearLayout>

<?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:gravity="center"

android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Active Fragment is FragmentOne"

android:textSize="24sp"/>

</LinearLayout>

<?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:gravity="center"

android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Active Fragment is FragmentTwo"

android:textSize="24sp"/>

</LinearLayout>

**package com.example.fragments;**

**import androidx.appcompat.app.AppCompatActivity;**

**import android.os.Bundle;**

**import android.view.LayoutInflater;**

**import android.view.View;**

**import android.view.ViewGroup;**

**import android.widget.Button;**

**public class MainActivity extends AppCompatActivity {**

**@Override**

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

**super.onCreate(savedInstanceState);**

**setContentView(R.layout.activity\_main);**

**Button FragmentOne = findViewById(R.id.FragmentOne);**

**Button FragmentTwo = findViewById(R.id.FragmentTwo);**

**FragmentOne.setOnClickListener(new View.OnClickListener() {**

**@Override**

**public void onClick(View v) {**

**loadFragment(new FragmentOne());**

**}**

**});**

**FragmentTwo.setOnClickListener(new View.OnClickListener() {**

**@Override**

**public void onClick(View v) {**

**loadFragment(new FragmentTwo());**

**}**

**});**

**}**

**private void loadFragment(androidx.fragment.app.Fragment fragment) {**

**getSupportFragmentManager().beginTransaction()**

**.replace(R.id.fragment, fragment)**

**.commit();**

**}**

**}**

package com.example.fragments;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import androidx.fragment.app.Fragment; // Import the correct Fragment class

public class fragmentone extends Fragment {

public fragmentone() {

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

return inflater.inflate(R.layout.activity\_fragmentone, container, false);

}

}

package com.example.fragments;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import androidx.fragment.app.Fragment; // Import the correct Fragment class

public class fragmenttwo extends Fragment {

public fragmenttwo() {

}

@Override

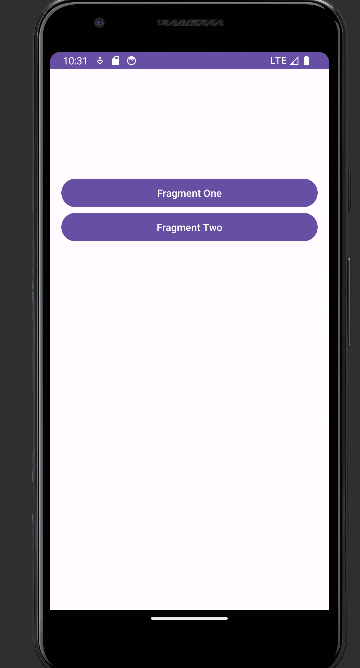
public View onCreateView(LayoutInflater inflater, ViewGroup container,

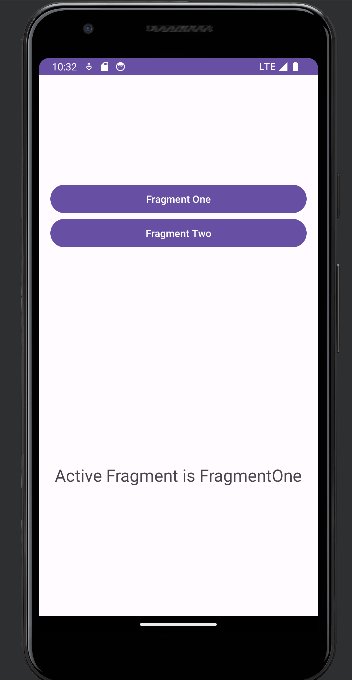
Bundle savedInstanceState) {

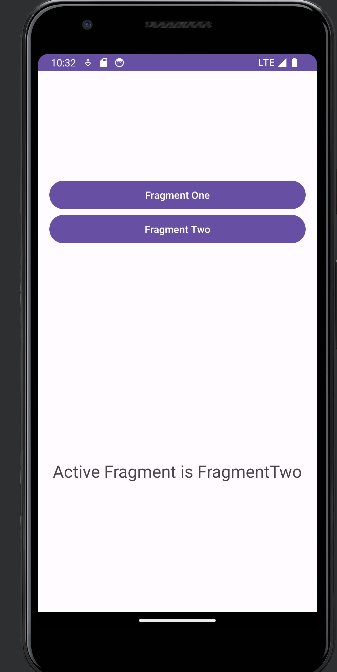
return inflater.inflate(R.layout.activity\_fragmenttwo, container, false);

}

}

**Output   
  
**

****

****

**Spinner**

<?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:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Spinner"

android:layout\_marginTop="102dp"

android:gravity="center"

/>

<Spinner

android:id="@+id/spinner"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_marginTop="35dp"/>

</LinearLayout>

package com.example.spinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.Spinner;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

Spinner spinner;

String[] courses={"Select a Course","JAVA","PYTHON","HTML","ANDROID","IOT"};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

spinner = findViewById(R.id.spinner);

ArrayAdapter<String> aa = new ArrayAdapter<>(this, android.R.layout.simple\_spinner\_item,courses);

aa.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);

spinner.setAdapter(aa);

spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {

@Override

public void onItemSelected(AdapterView<?> adapterView, View view, int i, long l) {

if(i !=0){

Toast.makeText(getApplicationContext(),"Selected Course is:"+ courses[i],

Toast.LENGTH\_LONG).show();

}

}

@Override

public void onNothingSelected(AdapterView<?> adapterView){

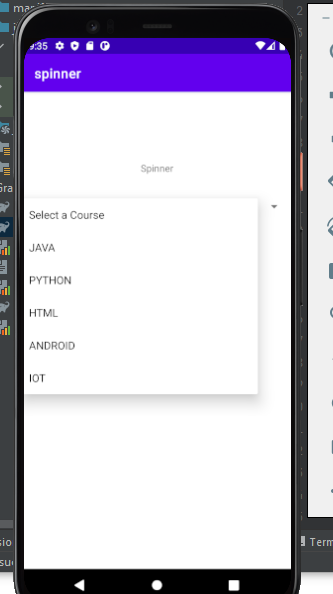
}

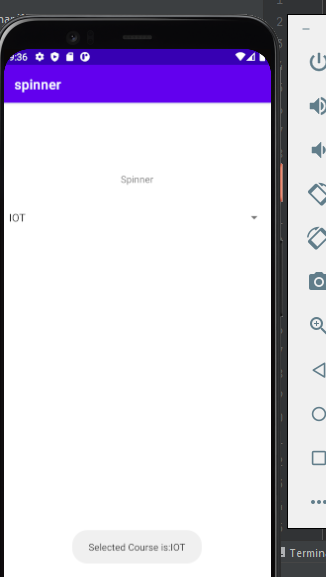
});

}

}

**Output**

****

****

**NavigationDrawer**

**Crud**

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp">

<EditText

android:id="@+id/Name"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Name"

android:inputType="text" />

<EditText

android:id="@+id/RollNo"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Roll Number"

android:inputType="number" />

<EditText

android:id="@+id/Address"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Address"

android:inputType="text" />

<Button

android:id="@+id/Insert"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Insert"

android:onClick="insertdb"/>

<Button

android:id="@+id/Update"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Update"

android:onClick="updatedb"/>

<Button

android:id="@+id/Delete"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Delete"

android:onClick="deletedb"/>

<Button

android:id="@+id/btnRead"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="View"

android:onClick="viewdb"/>

</LinearLayout>

package com.example.crud;

import androidx.appcompat.app.AppCompatActivity;

import android.content.ContentValues;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.os.Bundle;

import android.view.View;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

DbHelper helper=new DbHelper(this);

SQLiteDatabase db;

EditText sname,srollno,saddress;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

db=helper.getReadableDatabase();

db=helper.getWritableDatabase();

sname=findViewById(R.id.Name);

srollno=findViewById(R.id.RollNo);

saddress=findViewById(R.id.Address);

}

public void insertdb(View view) {

String n=sname.getText().toString();

String r=srollno.getText().toString();

String a=saddress.getText().toString();

if(n.equals("")||r.equals("")|| a.equals("")){

Toast.makeText(this, "please enter the data", Toast.LENGTH\_SHORT).show();

}

else {

ContentValues data=new ContentValues();

data.put("name",n);

data.put("rollno",r);

data.put("address",a);

db.insert("stud",null,data);

Toast.makeText(this, "Inserted...", Toast.LENGTH\_SHORT).show();

}}

public void updatedb(View view) {

String n=sname.getText().toString();

String r=srollno.getText().toString();

String a=saddress.getText().toString();

if(n.equals("")||r.equals("")|| a.equals("")){

Toast.makeText(this, "please enter the data", Toast.LENGTH\_SHORT).show();

}

else {

ContentValues data = new ContentValues();

data.put("name", n);

data.put("rollno", r);

data.put("address", a);

db.update("stud",data,"rollno="+r,null);

Toast.makeText(this, "Updated...", Toast.LENGTH\_SHORT).show();

}

}

public void deletedb(View view) {

String r=srollno.getText().toString();

if(r.equals("")){

Toast.makeText(this, "please enter the data", Toast.LENGTH\_SHORT).show();

}

else {

ContentValues data = new ContentValues();

data.put("rollno", r);

db.delete("stud","rollno="+r,null);

Toast.makeText(this, "Deleted...", Toast.LENGTH\_SHORT).show();

}

}

public void viewdb(View view) {

StringBuffer buffer=new StringBuffer();

Cursor c=db.rawQuery("select \* from stud",null);

while(c.moveToNext()){

buffer.append("ID:"+c.getString(0)+"\t");

buffer.append("Name"+c.getString(1)+"\t");

buffer.append("Address"+c.getString(2)+"\t");

}

Toast.makeText(this,buffer.toString(),Toast.LENGTH\_LONG).show();

}

}

package com.example.crud;

import android.content.Context;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class DbHelper extends SQLiteOpenHelper {

public DbHelper(@Nullable Context context) {

super(context, "student.db", null, 1);

}

@Override

public void onCreate(SQLiteDatabase sqLiteDatabase) {

sqLiteDatabase.execSQL("create table stud(name varchar(10),rollno int,address varchar(10))");

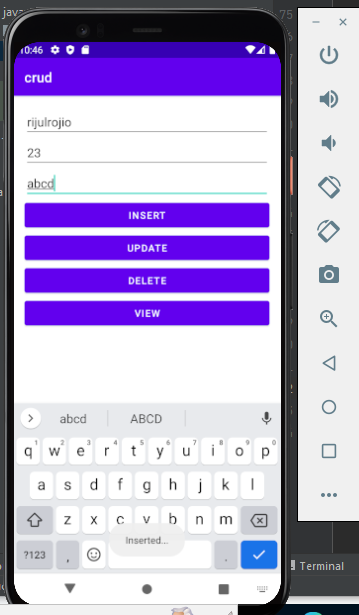
}

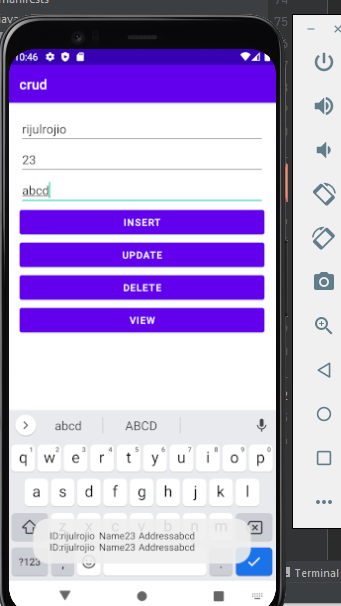
@Override

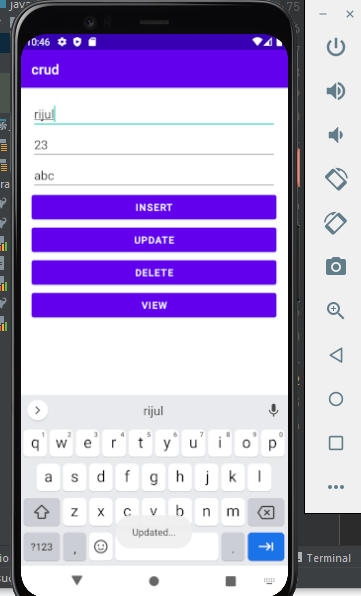
public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {

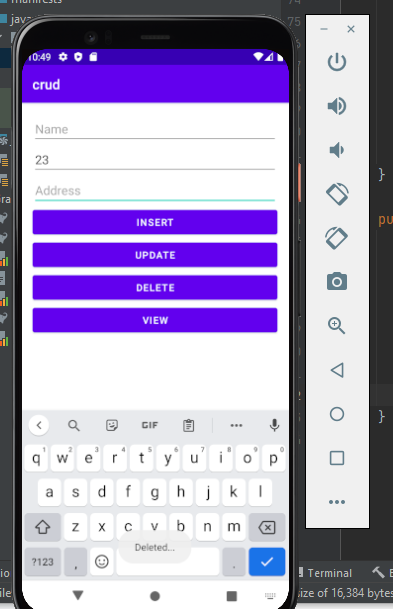
}

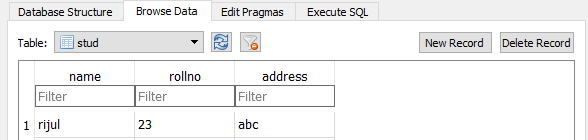
}

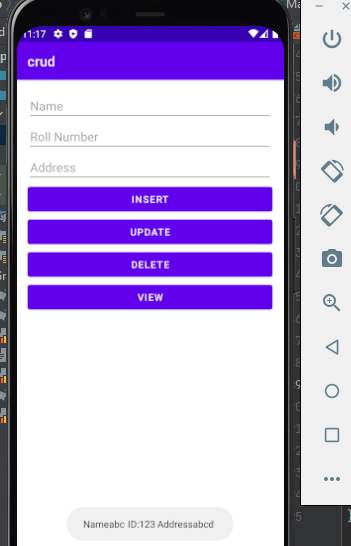
**Output  
  
**

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**package com.example.employee;**

**import android.content.Context;**

**import android.database.sqlite.SQLiteDatabase;**

**import android.database.sqlite.SQLiteOpenHelper;**

**import androidx.annotation.Nullable;**

**public class DbHelper extends SQLiteOpenHelper {**

**public DbHelper(@Nullable Context context) {**

**super(context, "employee.db", null, 1);**

**}**

**@Override**

**public void onCreate(SQLiteDatabase sqLiteDatabase) {**

**sqLiteDatabase.execSQL("create table emp(empid integer primary key AUTOINCREMENT,name varchar(10),department varchar(10),address varchar(10))");**

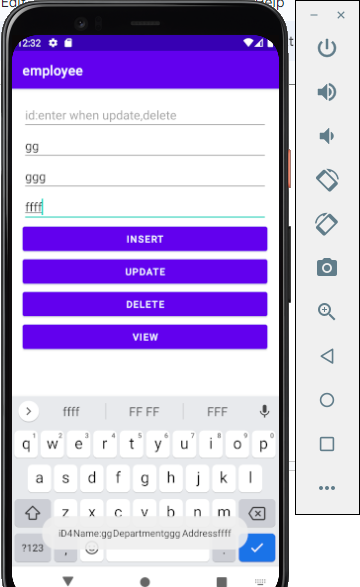
**}**

**@Override**

**public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {**

**}**

**}**

****