3. Calculator prog

<?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">

<EditText

android:id="@+id/num1"

android:layout\_width="match\_parent"

android:layout\_height="79dp"

android:ems="10"

android:hint="First Number"

android:inputType="numberDecimal" />

<EditText

android:id="@+id/num2"

android:layout\_width="match\_parent"

android:layout\_height="87dp"

android:ems="10"

android:hint="Second Number"

android:inputType="numberDecimal" />

<TextView

android:id="@+id/result"

android:layout\_width="match\_parent"

android:layout\_height="99dp"

android:text="TextView"

android:textSize="35dp"/>

<Button

android:id="@+id/add"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="+(Addition)" />

<Button

android:id="@+id/subtract"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="-(Subtraction) " />

<Button

android:id="@+id/multiply"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="\*(Multiplication)" />

<Button

android:id="@+id/divide"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="/(Division)" />

<Button

android:id="@+id/modulus"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="%(Modulus)" />

</LinearLayout>

package com.example.simplecalculator;

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 {

TextView result;

EditText num1 , num2 ;

Button add, subtract, divide, multiply, modulus;

double ans;

double n1,n2;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

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

num1 = (EditText)findViewById(R.id.num1);

num2 = (EditText)findViewById(R.id.num2);

add = (Button)findViewById(R.id.add);

subtract=(Button)findViewById(R.id.subtract);

multiply = (Button)findViewById(R.id.multiply);

divide = (Button)findViewById(R.id.divide);

modulus = (Button)findViewById(R.id.modulus);

add.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

n1 = Integer.parseInt(num1.getText().toString());

n2 = Integer.parseInt(num2.getText().toString());

ans = n1+n2;

result.setText(String.valueOf(ans));

}

});

subtract.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

n1 = Integer.parseInt(num1.getText().toString());

n2 = Integer.parseInt(num2.getText().toString());

ans = n1-n2;

result.setText(String.valueOf(ans));

}

});

multiply.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

n1 = Integer.parseInt(num1.getText().toString());

n2 = Integer.parseInt(num2.getText().toString());

ans = n1\*n2;

result.setText(String.valueOf(ans));

}

});

divide.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

n1 = Integer.parseInt(num1.getText().toString());

n2 = Integer.parseInt(num2.getText().toString());

ans = n1/n2;

result.setText(String.valueOf(ans));

}

});

modulus.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

n1 = Integer.parseInt(num1.getText().toString());

n2 = Integer.parseInt(num2.getText().toString());

ans = n1%n2;

result.setText(String.valueOf(ans));

}

});

}

}

PROG2

ACTIVITYMain.java

**package** com.example.second;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 EditText **name**;  
 Button **navigate** ;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **name** = findViewById(R.id.***name***);  
 **navigate** = findViewById(R.id.***navigate***);  
 **navigate**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Toast.*makeText*(MainActivity.**this**, **"Here"**, Toast.***LENGTH\_SHORT***).show();  
 String myName = **name**.getText().toString();  
 Intent it = **new** Intent(MainActivity.**this**,SecondFragment.**class**);  
 it.putExtra(**"name"**,myName);  
 startActivity(it);  
 }  
 });  
 }  
  
}

activitymain.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"  
 android:orientation="vertical"**>  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Enter your Name"  
 android:id="@+id/name"  
 android:layout\_margin="30dp"**/>  
 <**Button  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="30dp"  
 android:id="@+id/navigate"  
 android:text="NAVIGATE"** />  
</**LinearLayout**>

Secondfragment.java

**package** com.example.second;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.widget.TextView;  
  
**public class** SecondFragment **extends** AppCompatActivity {  
 TextView **echoText**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***fragment\_second***);  
 **echoText** = findViewById(R.id.***echotext***);  
 Bundle myBundle = getIntent().getExtras();  
 **while**(myBundle!=**null**){  
 String myechotext = myBundle.getString(**"name"**);  
 **echoText**.setText(myechotext);  
 }  
 }  
}

secondfragment.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".SecondFragment"  
 android:orientation="vertical"**>  
  
 <**TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="SAMPLE TEXT"  
 android:id="@+id/echotext"  
 android:layout\_margin="30dp"  
 android:fontFamily="cursive"  
 android:textStyle="bold"  
 android:textSize="30dp"**/>  
</**LinearLayout**>

Prog 4(part a)

Mainactivity.java

**package** com.example.program4;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.ContentValues;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
**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 btn\_Insert, btn\_Delete, btn\_Update;  
 EditText Id, Name, Email, Phone;  
  
 SQLiteOpenHelper openHelper;  
 SQLiteDatabase db;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
 btn\_Insert = (Button)findViewById(R.id.btnInsert);  
 btn\_Delete = (Button)findViewById(R.id.btnDelete);  
 btn\_Update = (Button)findViewById(R.id.btnUpdate);  
  
 Id = (EditText)findViewById(R.id.ID);  
 Name = (EditText)findViewById(R.id.Name);  
 Email = (EditText)findViewById(R.id.Email);  
 Phone = (EditText)findViewById(R.id.Phone);  
  
 openHelper = **new** Database(**this**);  
 btn\_Insert.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String name = Name.getText().toString();  
 String email = Email.getText().toString();  
 String phone = Phone.getText().toString();  
  
 db = openHelper.getWritableDatabase();  
 insertData(name,email,phone);  
 Toast.makeText(getApplicationContext(), **"Insert Success"** , Toast.LENGTH\_SHORT ).show();  
 }  
 });  
 btn\_Delete.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 db=openHelper.getWritableDatabase();  
 String name = Name.getText().toString();  
 deleteData(name);  
 Toast.makeText(getApplicationContext(),**"Delete success"**, Toast.LENGTH\_LONG).show();  
 }  
 });  
 btn\_Update.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String name = Name.getText().toString();  
 String email = Email.getText().toString();  
 String phone = Phone.getText().toString();  
  
 db = openHelper.getWritableDatabase();  
 updateData(name,email,phone);  
 Toast.makeText(getApplicationContext(), **"updated Successfully"** , Toast.LENGTH\_SHORT ).show();  
  
 }  
 });  
 }  
 **public void** insertData (String name, String email, String phone)  
 {  
 ContentValues contentValues = **new** ContentValues();  
 contentValues.put(Database.Name, name);  
 contentValues.put(Database.Email, email);  
 contentValues.put(Database.PhoneNO, phone);  
  
 **long** id = db.insert(Database.TABLE\_NAME, **null**, contentValues );  
  
 }  
**public boolean** deleteData(String name){  
 **return** db.delete(Database.TABLE\_NAME, Database.Name + **"=?"**, **new** String[]{name})>0;  
}  
**public boolean** updateData(String name, String email, String phone) {  
  
 ContentValues contentValues = **new** ContentValues();  
 contentValues.put(Database.Name, name);  
 contentValues.put(Database.Email, email);  
 contentValues.put(Database.PhoneNO, phone);  
 **return** db.update(Database.TABLE\_NAME, contentValues, Database.Name + **"=?"**, **new** String[]{name})>0;  
}  
 }

main\_activity.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**EditText  
 android:id="@+id/Name"  
 android:layout\_width="0dp"  
 android:layout\_height="58dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginTop="66dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginBottom="12dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="Name"  
 app:layout\_constraintBottom\_toBottomOf="@+id/Email"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="1.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.387"** />  
  
 <**EditText  
 android:id="@+id/Email"  
 android:layout\_width="0dp"  
 android:layout\_height="58dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginBottom="12dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="Email Id"  
 app:layout\_constraintBottom\_toTopOf="@+id/Phone"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**EditText  
 android:id="@+id/Phone"  
 android:layout\_width="393dp"  
 android:layout\_height="63dp"  
 android:layout\_marginStart="7dp"  
 android:layout\_marginLeft="7dp"  
 android:layout\_marginTop="276dp"  
 android:layout\_marginEnd="7dp"  
 android:layout\_marginRight="7dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="Phone Number"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="1.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**Button  
 android:id="@+id/btnInsert"  
 android:layout\_width="96dp"  
 android:layout\_height="41dp"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginLeft="16dp"  
 android:text="Add"  
 app:layout\_constraintBaseline\_toBaselineOf="@+id/btnDelete"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**Button  
 android:id="@+id/btnDelete"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="40dp"  
 android:layout\_marginRight="40dp"  
 android:text="Delete"  
 app:layout\_constraintEnd\_toStartOf="@+id/btnUpdate"  
 tools:layout\_editor\_absoluteY="375dp"** />  
  
 <**Button  
 android:id="@+id/btnUpdate"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="44dp"  
 android:layout\_marginRight="44dp"  
 android:text="Update"  
 app:layout\_constraintBaseline\_toBaselineOf="@+id/btnDelete"  
 app:layout\_constraintEnd\_toEndOf="parent"** />  
  
 <**EditText  
 android:id="@+id/ID"  
 android:layout\_width="391dp"  
 android:layout\_height="49dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginRight="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="ID"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 tools:layout\_editor\_absoluteY="46dp"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

Database.java

**package** com.example.program4;  
  
**import** android.content.Context;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
  
**import** androidx.annotation.Nullable;  
  
**public class** Database **extends** SQLiteOpenHelper {  
 **public static final** String ***DATABASE\_NAME*** = **"Proj4.db"**;  
 **public static final** String ***TABLE\_NAME*** = **"Proj4"**;  
  
 **public static final** String ***Id*** = **"ID"**;  
 **public static final** String ***Name*** = **"name"**;  
 **public static final** String ***Email*** = **"email"**;  
 **public static final** String ***PhoneNO*** = **"phoneNo"**;;  
  
  
 **public** Database(@Nullable Context context) {  
 **super**(context, ***DATABASE\_NAME***, **null** , 1);  
 }  
  
 @Override  
 **public void** onCreate(SQLiteDatabase db) {  
 db.execSQL(**"CREATE TABLE "**+ ***TABLE\_NAME*** + **"(ID INTEGER PRIMARY KEY AUTOINCREMENT, name TEXT, email TEXT, phoneNo TEXT )"**);  
 }  
  
 @Override  
 **public void** onUpgrade(SQLiteDatabase db, **int** oldVersion, **int** newVersion) {  
 db.execSQL(**"DROP TABLE IF EXISTS "** + ***TABLE\_NAME*** );  
 onCreate(db);  
 }  
}