Program No: 1

Program Name: Write a program to change the size and colour of text.

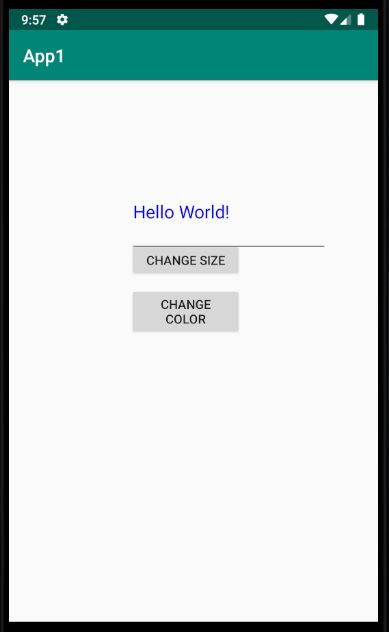
XML Code:

<?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">  
  
 <EditText  
 android:id="@+id/text"  
 android:layout\_width="162dp"  
 android:layout\_height="51dp"  
 android:layout\_marginLeft="135dp"  
 android:layout\_marginTop="100dp"  
 android:text="Hello World!"  
 android:textAppearance="@style/TextAppearance.AppCompat.Large"  
 android:textSize="10dp"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:visibility="visible" />  
  
 <Button  
 android:id="@+id/button1"  
 android:layout\_width="125dp"  
 android:layout\_height="40dp"  
 android:layout\_marginTop="180dp"  
 android:layout\_marginLeft="135dp"  
 android:text="Change Size"  
 android:onClick="Change\_Size"/>  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="125dp"  
 android:layout\_height="55dp"  
 android:layout\_marginLeft="135dp"  
 android:layout\_marginTop="230dp"  
 android:onClick="Change\_Color"  
 android:text="Change Color" />  
  
</RelativeLayout>

Java Code:

package com.example.app1;  
  
import android.graphics.Color;  
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  
{  
 EditText ts;  
 Button b1, b2;  
 int c=0, d=0;  
 @Override  
 protected void onCreate(Bundle savedInstanceState)  
 {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 ts = (EditText)findViewById(R.id.*text*);  
 b1 = (Button)findViewById(R.id.*button1*);  
 b2 = (Button)findViewById(R.id.*button2*);  
  
 }  
  
 public void Change\_Size(View cs)  
 {  
 while(c<=2)  
 {  
 if(c==0)  
 {  
 ts.setTextSize(10);  
 c++;  
 break;  
 }  
 else if(c==1)  
 {  
 ts.setTextSize(20);  
 c++;  
 break;  
 }  
 else if(c==2)  
 {  
 ts.setTextSize(30);  
 c=0;  
 break;  
 }  
 }  
 }  
  
 public void Change\_Color(View cc)  
 {  
 while(d<=3)  
 {  
 if(d==0)  
 {  
 ts.setTextColor(Color.*BLUE*);  
 d++;  
 break;  
 }  
 else if(d==1)  
 {  
 ts.setTextColor(Color.*RED*);  
 d++;  
 break;  
 }  
 else if(d==2)  
 {  
 ts.setTextColor(Color.*GREEN*);  
 d++;  
 break;  
 }  
 else if(d==3)  
 {  
 ts.setTextColor(Color.*CYAN*);  
 d=0;  
 break;  
 }  
 }  
 }  
}

Result



Program No: 2

Program Name: Write a program to add two numbers and show the result via Toast

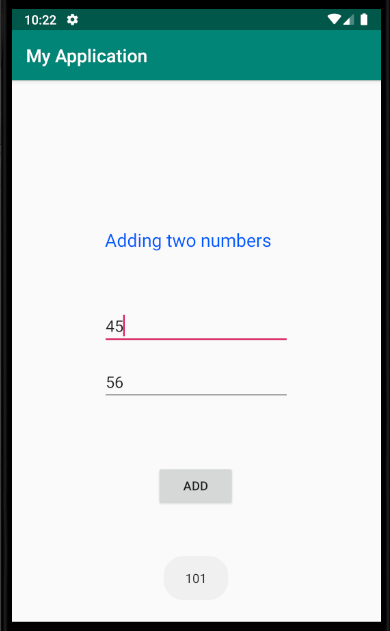
XML Code:

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/tex"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="207dp"  
 android:layout\_height="35dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginBottom="8dp"  
 android:text="Adding two numbers"  
 android:textColor="#0058FF"  
 android:textSize="20dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.488"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.283" />  
  
 <EditText  
 android:id="@+id/text1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text=""  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView"  
 app:layout\_constraintVertical\_bias="0.128"  
 android:autofillHints="" />  
  
 <EditText  
 android:id="@+id/text2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text=""  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/text1"  
 app:layout\_constraintVertical\_bias="0.039" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:onClick="logInClicked"  
 android:text="Add"  
  
 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/text2"  
 app:layout\_constraintVertical\_bias="0.337" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

Java Code:

package com.example.myapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.app.Notification;  
import android.os.Bundle;  
import android.util.Log;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.EditText;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
  
  
 public void logInClicked (View view){  
 EditText e1 = (EditText) findViewById(R.id.*text1*);  
 EditText e2 = (EditText) findViewById(R.id.*text2*);  
  
 String value1=e1.getText().toString();  
 String value2=e2.getText().toString();  
 int a=Integer.*parseInt*(value1);  
 int b=Integer.*parseInt*(value2);  
 int sum=a+b;  
  
 Toast.*makeText*(MainActivity.this, String.*valueOf*(sum), Toast.*LENGTH\_SHORT*).show();  
 }  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
}

Result



Program No: 3

Program Name: Write a program to create a calculator

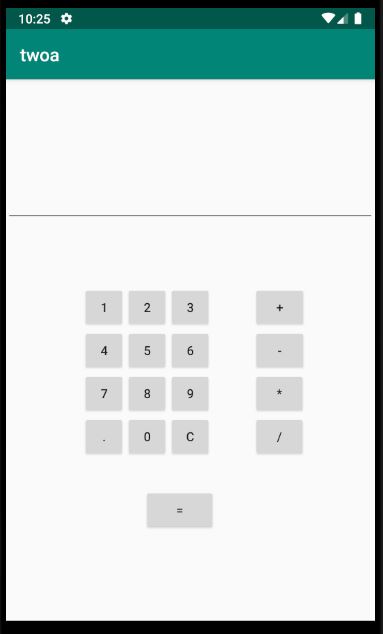
XML Code:

<?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:id="@+id/relative1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/edt1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentTop="true"  
 android:layout\_marginTop="115dp" />  
  
  
 <Button  
 android:id="@+id/button1"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/edt1"  
 android:layout\_alignEnd="@+id/button4"  
 android:layout\_alignRight="@+id/button4"  
 android:layout\_marginTop="70dp"  
 android:text="1" />  
  
 <Button  
 android:id="@+id/button2"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignTop="@+id/button1"  
 android:layout\_toStartOf="@+id/button3"  
 android:layout\_toLeftOf="@+id/button3"  
 android:text="2" />  
  
 <Button  
 android:id="@+id/button3"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignTop="@+id/button2"  
 android:layout\_centerHorizontal="true"  
 android:text="3" />  
  
 <Button  
 android:id="@+id/button4"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button1"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginRight="0dp"  
 android:layout\_toLeftOf="@+id/button2"  
 android:text="4" />  
  
 <Button  
 android:id="@+id/button5"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignStart="@+id/button2"  
 android:layout\_alignLeft="@+id/button2"  
 android:layout\_alignBottom="@+id/button4"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginBottom="0dp"  
 android:text="5" />  
  
 <Button  
 android:id="@+id/button6"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button3"  
 android:layout\_alignStart="@+id/button3"  
 android:layout\_alignLeft="@+id/button3"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:text="6" />  
  
 <Button  
 android:id="@+id/button7"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button4"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginRight="0dp"  
 android:layout\_toLeftOf="@+id/button2"  
 android:text="7" />  
  
 <Button  
 android:id="@+id/button8"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button5"  
 android:layout\_alignStart="@+id/button5"  
 android:layout\_alignLeft="@+id/button5"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:text="8" />  
  
 <Button  
 android:id="@+id/button9"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button6"  
 android:layout\_alignStart="@+id/button6"  
 android:layout\_alignLeft="@+id/button6"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:text="9" />  
  
 <Button  
 android:id="@+id/buttonadd"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="71dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignTop="@+id/button3"  
 android:layout\_alignEnd="@+id/edt1"  
 android:layout\_alignRight="@+id/edt1"  
 android:layout\_marginStart="46dp"  
 android:layout\_marginLeft="46dp"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginEnd="76dp"  
 android:layout\_marginRight="76dp"  
 android:layout\_toRightOf="@+id/button3"  
 android:text="+" />  
  
 <Button  
 android:id="@+id/buttonsub"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="72dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/buttonadd"  
 android:layout\_alignStart="@+id/buttonadd"  
 android:layout\_alignLeft="@+id/buttonadd"  
 android:layout\_alignEnd="@+id/buttonadd"  
 android:layout\_alignRight="@+id/buttonadd"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginEnd="0dp"  
 android:layout\_marginRight="0dp"  
 android:text="-" />  
  
 <Button  
 android:id="@+id/buttonmul"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="58dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/buttonsub"  
 android:layout\_alignStart="@+id/buttonsub"  
 android:layout\_alignLeft="@+id/buttonsub"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentRight="true"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginEnd="77dp"  
 android:layout\_marginRight="77dp"  
 android:text="\*" />  
  
 <Button  
 android:id="@+id/button10"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button7"  
 android:layout\_marginTop="0dp"  
 android:layout\_marginRight="0dp"  
 android:layout\_toLeftOf="@+id/button2"  
 android:text="." />  
  
 <Button  
 android:id="@+id/button0"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button8"  
 android:layout\_alignStart="@+id/button8"  
 android:layout\_alignLeft="@+id/button8"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:text="0" />  
  
 <Button  
 android:id="@+id/buttonC"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button9"  
 android:layout\_alignStart="@+id/button9"  
 android:layout\_alignLeft="@+id/button9"  
 android:layout\_marginStart="0dp"  
 android:layout\_marginLeft="0dp"  
 android:layout\_marginTop="0dp"  
 android:text="C" />  
  
 <Button  
 android:id="@+id/buttondiv"  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/buttonmul"  
 android:layout\_alignStart="@+id/buttonmul"  
 android:layout\_alignLeft="@+id/buttonmul"  
 android:layout\_alignEnd="@+id/buttonmul"  
 android:layout\_alignRight="@+id/buttonmul"  
 android:text="/" />  
  
 <Button  
 android:id="@+id/buttoneql"  
 android:layout\_width="81dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/button0"  
 android:layout\_alignLeft="@+id/button10"  
 android:layout\_alignRight="@+id/buttondiv"  
 android:layout\_marginLeft="68dp"  
 android:layout\_marginTop="34dp"  
 android:layout\_marginRight="100dp"  
 android:text="=" />  
  
</RelativeLayout>

Java Code:

package com.example.twoa;  
  
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 {  
  
 Button button0, button1, button2, button3, button4, button5, button6,  
 button7, button8, button9, buttonAdd, buttonSub, buttonDivision,  
 buttonMul, button10, buttonC, buttonEqual;  
 EditText et;  
  
 float mValueOne, mValueTwo;  
  
 boolean isAddition, isSubtract, isMultiplication, isDivision;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 button0 = (Button) findViewById(R.id.*button0*);  
 button1 = (Button) findViewById(R.id.*button1*);  
 button2 = (Button) findViewById(R.id.*button2*);  
 button3 = (Button) findViewById(R.id.*button3*);  
 button4 = (Button) findViewById(R.id.*button4*);  
 button5 = (Button) findViewById(R.id.*button5*);  
 button6 = (Button) findViewById(R.id.*button6*);  
 button7 = (Button) findViewById(R.id.*button7*);  
 button8 = (Button) findViewById(R.id.*button8*);  
 button9 = (Button) findViewById(R.id.*button9*);  
 button10 = (Button) findViewById(R.id.*button10*);  
 buttonAdd = (Button) findViewById(R.id.*buttonadd*);  
 buttonSub = (Button) findViewById(R.id.*buttonsub*);  
 buttonMul = (Button) findViewById(R.id.*buttonmul*);  
 buttonDivision = (Button) findViewById(R.id.*buttondiv*);  
 buttonC = (Button) findViewById(R.id.*buttonC*);  
 buttonEqual = (Button) findViewById(R.id.*buttoneql*);  
 et = (EditText) findViewById(R.id.*edt1*);  
  
  
 button1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "1");  
 }  
 });  
  
 button2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "2");  
 }  
 });  
  
 button3.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "3");  
 }  
 });  
  
 button4.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "4");  
 }  
 });  
  
 button5.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "5");  
 }  
 });  
  
 button6.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "6");  
 }  
 });  
  
 button7.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "7");  
 }  
 });  
  
 button8.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "8");  
 }  
 });  
  
 button9.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "9");  
 }  
 });  
  
 button0.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + "0");  
 }  
 });  
  
 buttonAdd.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 if (et == null) {  
 et.setText("");  
 } else {  
 mValueOne = Float.*parseFloat*(et.getText() + "");  
 isAddition = true;  
 et.setText(null);  
 }  
 }  
 });  
  
 buttonSub.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 mValueOne = Float.*parseFloat*(et.getText() + "");  
 isSubtract = true;  
 et.setText(null);  
 }  
 });  
  
 buttonMul.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 mValueOne = Float.parseFloat(et.getText() + "");  
 isMultiplication = true;  
 et.setText(null);  
 }  
 });  
  
 buttonDivision.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 mValueOne = Float.parseFloat(et.getText() + "");  
 isDivision = true;  
 et.setText(null);  
 }  
 });  
  
 buttonEqual.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 mValueTwo = Float.parseFloat(et.getText() + "");  
  
 if (isAddition == true) {  
 et.setText(mValueOne + mValueTwo + "");  
 isAddition = false;  
 }  
  
 if (isSubtract == true) {  
 et.setText(mValueOne - mValueTwo + "");  
 isSubtract = false;  
 }  
  
 if (isMultiplication == true) {  
 et.setText(mValueOne \* mValueTwo + "");  
 isMultiplication = false;  
 }  
  
 if (isDivision == true) {  
 et.setText(mValueOne / mValueTwo + "");  
 isDivision = false;  
 }  
 }  
 });  
  
 buttonC.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText("");  
 }  
 });  
  
 button10.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 et.setText(et.getText() + ".");  
 }  
 });  
 }  
}

Result



Program No: 4

Program Name: Develop an Android login Page app with active validation of credentials using explicit intents functionalities:

1. Validation of username and password
2. Invalid credentials: Toast message to say invalid username/password
3. 3 invalid attempts: Toast Message to say you have exceeded max attempts
4. Reset button for resetting text fields to empty string

XML Code:

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/username"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Username"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.117" />  
  
 <EditText  
 android:id="@+id/password"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:ems="10"  
 android:hint="Password"  
 android:inputType="textPassword"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.231" />  
  
 <Button  
 android:id="@+id/login"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:text="Log In"  
 android:onClick="logging"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.353" />  
  
 <Button  
 android:id="@+id/reset"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:text="Reset"  
 android:onClick="resetting"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.468" />  
  
 <Spinner  
 android:id="@+id/spinner"  
 android:layout\_width="173dp"  
 android:layout\_height="59dp"  
 tools:layout\_editor\_absoluteX="119dp"  
 tools:layout\_editor\_absoluteY="456dp"  
 android:entries="@array/spinboi"  
 />  
</androidx.constraintlayout.widget.ConstraintLayout>

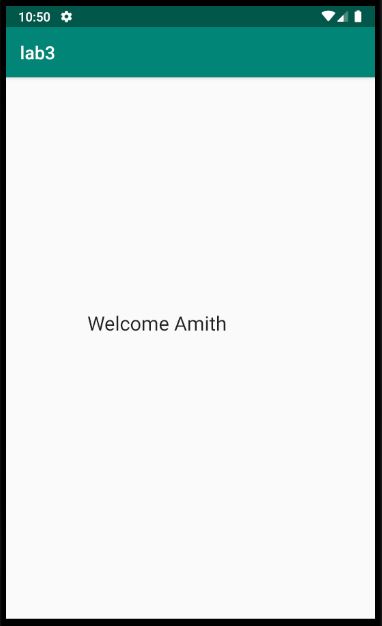
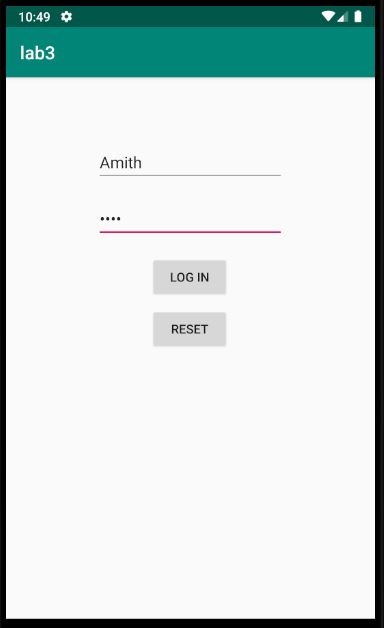
<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".welcomeScreen">  
  
 <TextView  
 android:id="@+id/tview"  
 android:layout\_width="224dp"  
 android:layout\_height="50dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginBottom="8dp"  
 android:textAppearance="@style/TextAppearance.AppCompat.Large"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.462"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.466" />  
  
 <TextView  
 android:id="@+id/tv2"  
 android:layout\_width="135dp"  
 android:layout\_height="38dp"  
 tools:layout\_editor\_absoluteX="109dp"  
 tools:layout\_editor\_absoluteY="477dp" />  
</androidx.constraintlayout.widget.ConstraintLayout>

Java Code:

package com.example.lab3;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.Spinner;  
import android.widget.Toast;  
public class MainActivity extends AppCompatActivity {  
  
 int c=0;  
 public void logging(View view){  
 EditText un = (EditText) findViewById(R.id.*username*);  
 EditText pw = (EditText) findViewById(R.id.*password*);  
 Spinner sp = (Spinner) findViewById(R.id.*spinner*);  
 int f=0;  
 String value1=un.getText().toString();  
 String value2=pw.getText().toString();  
 if(value1.equalsIgnoreCase("Amith") && value2.equals("pass") && c<=3)  
 {  
 Toast.*makeText*(MainActivity.this,"VALID CREDENTIALS", Toast.*LENGTH\_SHORT*).show();  
 Intent i = new Intent(MainActivity.this, welcomeScreen.class);  
 i.putExtra("blah",value1);  
 i.putExtra("passy", value2);  
 i.putExtra("string", sp.getSelectedItem().toString());  
  
 startActivity(i);  
 }  
  
 else  
 {  
 c=c+1;  
 if(c<=3)  
 Toast.*makeText*(MainActivity.this,"ERROR: WRONG CREDENTIALS", Toast.*LENGTH\_SHORT*).show();  
  
 else if(c>3)  
 {  
 Toast.*makeText*(MainActivity.this,"EXCEEDED MAX ATTEMPTS", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
  
 }  
  
 public void resetting(View view)  
 {  
 EditText un = (EditText) findViewById(R.id.*username*);  
 EditText pw = (EditText) findViewById(R.id.*password*);  
 un.setText("");  
 pw.setText("");  
 }  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
}

package com.example.lab3;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.TextView;  
  
public class welcomeScreen extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_welcome\_screen*);  
  
 Intent intent = getIntent();  
 TextView tv = (TextView)findViewById(R.id.*tview*);  
 TextView tv3 = (TextView)findViewById(R.id.*tv2*);  
 String s = intent.getStringExtra("blah");  
 String t = intent.getStringExtra("passy");  
 String p = intent.getStringExtra("string");  
 tv3.setText(p);  
 tv.setText("Welcome "+s);  
  
 }  
}

Result



Program No: 5

Program Name: Develop an Android Page app for storing student details (signup page) using database to fill the following functionalities:

1. Min 4 records of students to be stored using Insert Button
2. Delete duplicate students details based on ID using delete button
3. Retrieve all the details of students whose percentage greater than 70% using view button

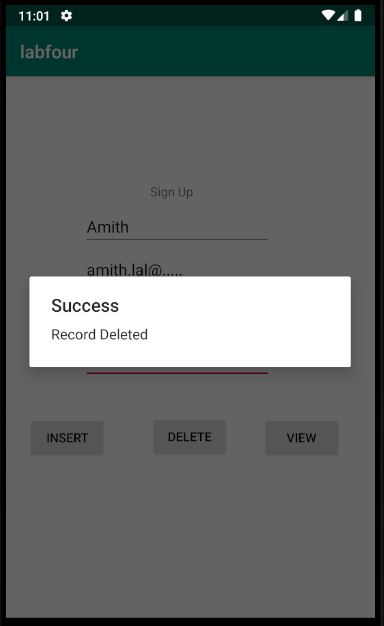
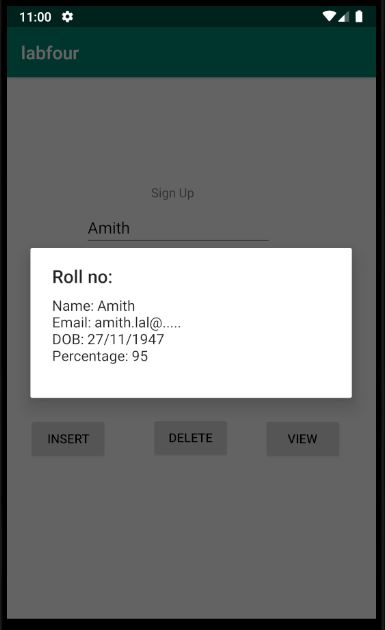
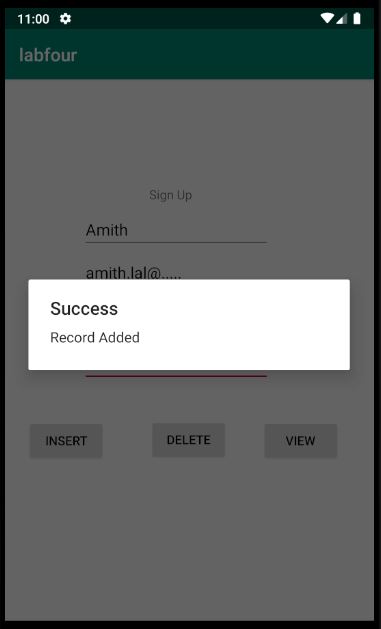
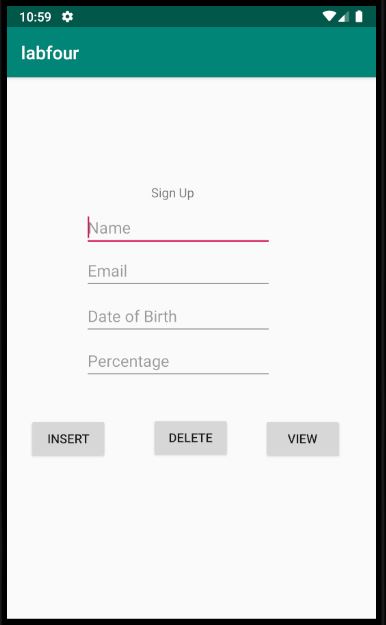
XML Code:

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Sign Up"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.443"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.203" />  
  
 <EditText  
 android:id="@+id/mail"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Email"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.423"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.351" />  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Name"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.423"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.264" />  
  
 <Button  
 android:id="@+id/ins"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:text="INSERT"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.055"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.677" />  
  
 <Button  
 android:id="@+id/view"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:text="VIEW"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/del"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.677" />  
  
 <EditText  
 android:id="@+id/dob"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Date of Birth"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.423"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.443" />  
  
 <EditText  
 android:id="@+id/percent"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:hint="Percentage"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.423"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.519" />  
  
 <Button  
 android:id="@+id/del"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginBottom="8dp"  
 android:text="DELETE"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.685" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

Java Code:

package com.example.labfour;  
  
import androidx.appcompat.app.AlertDialog;  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
 SQLiteDatabase db;  
  
 public void showMessage(String title, String message)  
 {  
 AlertDialog.Builder builder = new AlertDialog.Builder(this);  
 builder.setCancelable(true);  
 builder.setTitle(title);  
 builder.setMessage(message);  
 builder.show();  
 }  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 final EditText e1 = (EditText) findViewById(R.id.*name*);  
 final EditText e2 = (EditText) findViewById(R.id.*mail*);  
 final EditText e3 = (EditText) findViewById(R.id.*dob*);  
 final EditText e4 = (EditText) findViewById(R.id.*percent*);  
  
 Button b1 = (Button)findViewById(R.id.*ins*);  
 Button b2 = (Button)findViewById(R.id.*del*);  
 Button b3 = (Button)findViewById(R.id.*view*);  
  
  
 db = this.openOrCreateDatabase("student",*MODE\_PRIVATE*,null);  
 db.execSQL("CREATE TABLE IF NOT EXISTS data (NAME VARCHAR, EMAIL VARCHAR, DOB VARCHAR, PERC DECIMAL(3,2))");  
  
 ///db.execSQL("CREATE TABLE IF NOT EXISTS data (NAME VARCHAR, EMAIL VARCHAR, DOB VARCHAR, PERC VARCHAR)");  
  
 b1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 //db.execSQL("INSERT INTO data VALUES('"+e1.getText().toString()+"','"+e2.getText().toString()+"')");  
 db.execSQL("INSERT INTO data VALUES('"+e1.getText().toString()+"','"+e2.getText().toString()+"','"+e3.getText().toString()+"','"+e4.getText().toString()+"')");  
 showMessage("Success", "Record Added");  
 }  
 });  
  
 b2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String s = e1.getText().toString();  
 db.execSQL("DELETE FROM data WHERE NAME='"+s+"'");  
 showMessage("Success", "Record Deleted");  
 }  
 });  
  
 b3.setOnClickListener(new View.OnClickListener()  
 {  
 @Override  
 public void onClick(View v){  
 Cursor c = db.rawQuery("SELECT \* FROM data WHERE PERC>'"+70+"'", null);  
 c.moveToFirst();  
 if(c.getCount()==0)  
 {  
 showMessage("Error", "No records found");  
 return;  
 }  
  
 StringBuffer buffer = new StringBuffer();  
 while(c.moveToNext())  
 {  
 buffer.append("Name: "+c.getString(0)+"\n");  
 buffer.append("Email: "+c.getString(1)+"\n");  
 buffer.append("DOB: "+c.getString(2)+"\n");  
 buffer.append("Percentage: "+c.getString(3)+"\n");  
 }  
 showMessage("Roll no:", buffer.toString());  
 }  
  
 }  
 );  
 }  
}

Result



Program No: 6

Program Name: Write a program to create a web service

Code:

public class Ecom {

public String productName(int price,int ram)

{

int sprice[]= {200,300,400};

int sram[]= {8,16,16};

String proName[]= {"Dell","HP","ACER"};

for(int i=0;i<3;i++)

{

if(price==sprice[i]&&ram==sram[i])

{

return proName[i];

}

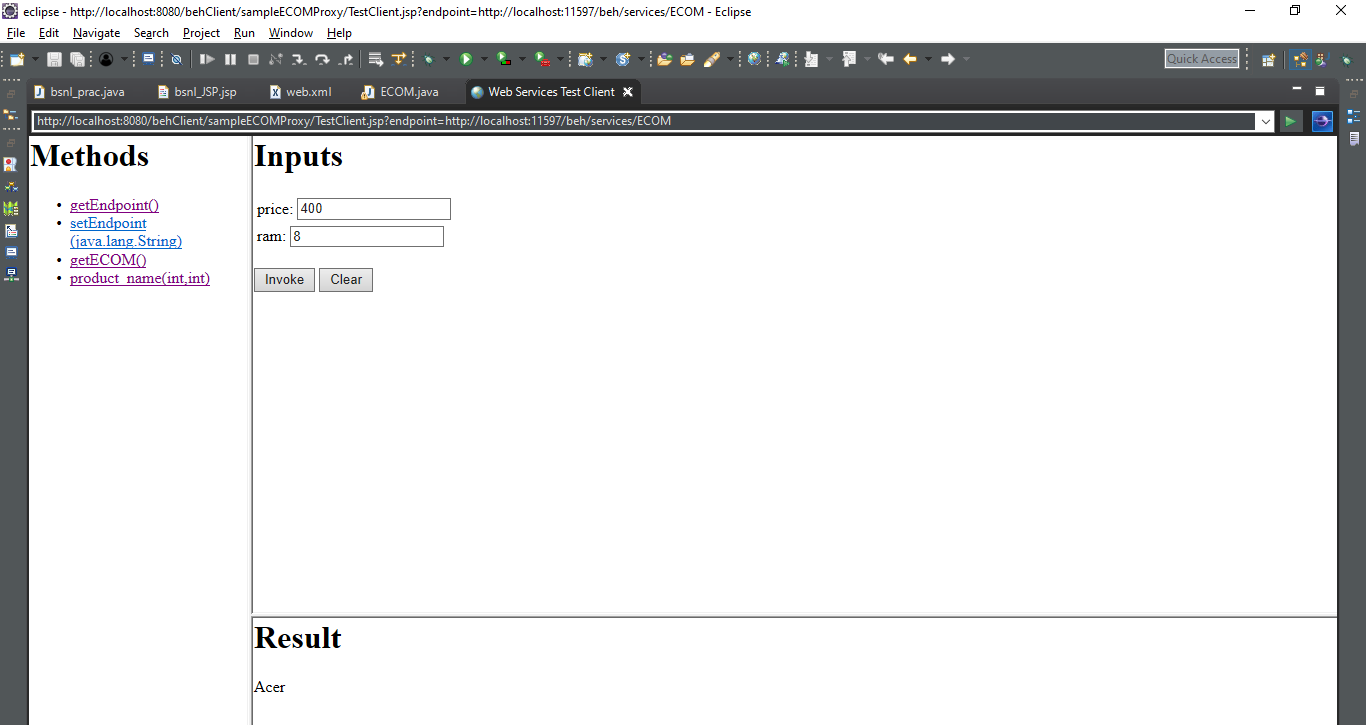
}

return "No such Product Available";

}

}

Result



Program No: 7

Program Name: Write a program to use maps on Android.

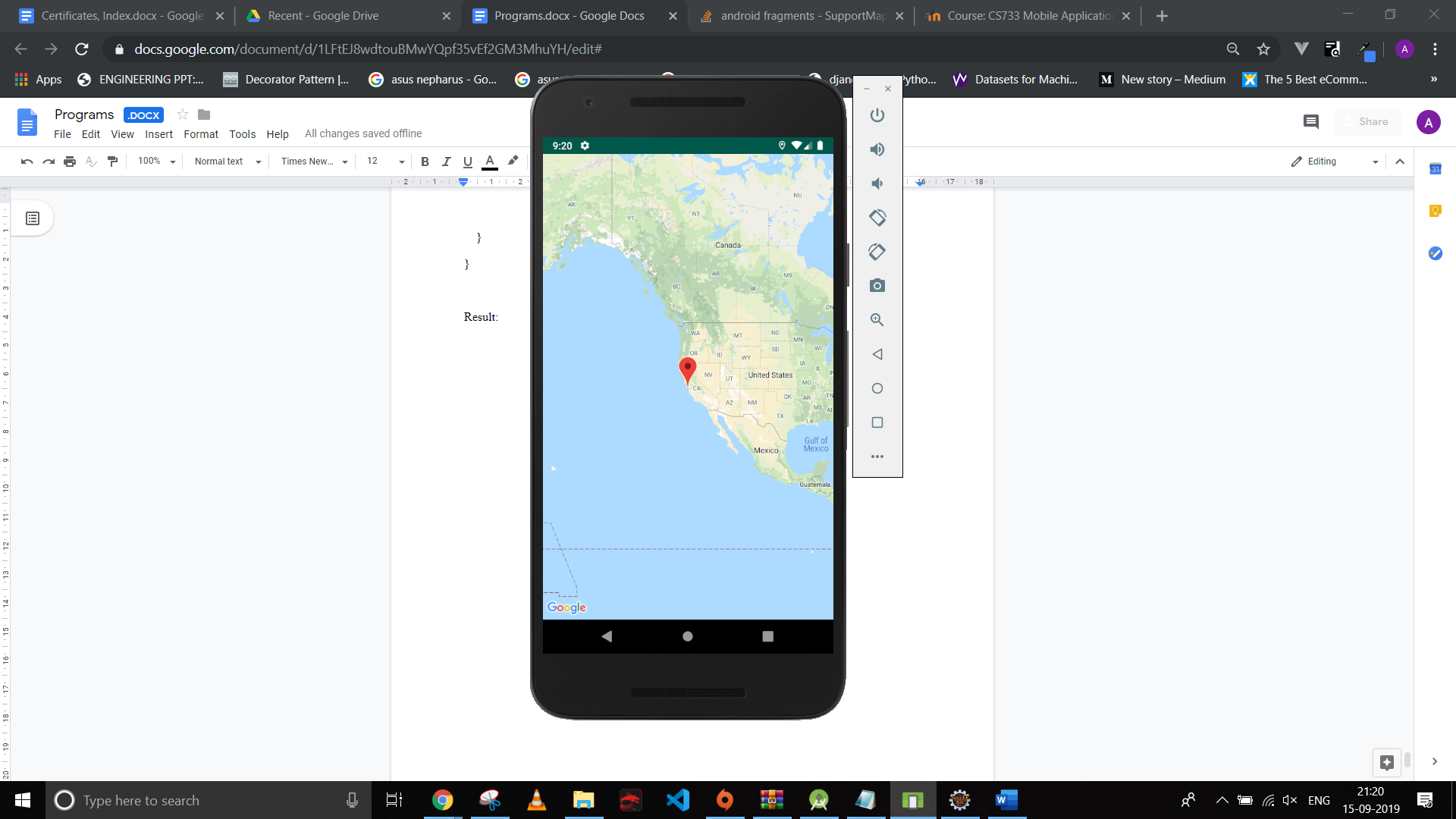
XML Code:

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.maps">  
  
 <!--  
 The ACCESS\_COARSE/FINE\_LOCATION permissions are not required to use  
 Google Maps Android API v2, but you must specify either coarse or fine  
 location permissions for the 'MyLocation' functionality.  
 -->  
 <uses-permission android:name="android.permission.ACCESS\_FINE\_LOCATION" />  
  
 <application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/AppTheme">  
  
 <meta-data  
 android:name="com.google.android.geo.API\_KEY"  
 android:value="@string/AIzaSyDYG39klUP4ofIfqjp4chL1PROMZP-hkOk" />  
  
 <activity  
 android:name=".MapsActivity"  
 android:label="@string/title\_activity\_maps">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
 </application>  
  
</manifest>

Java Code:

package com.example.maps;  
  
import android.support.v4.app.FragmentActivity;  
import android.os.Bundle;  
  
import com.google.android.gms.maps.CameraUpdateFactory;  
import com.google.android.gms.maps.GoogleMap;  
import com.google.android.gms.maps.OnMapReadyCallback;  
import com.google.android.gms.maps.SupportMapFragment;  
import com.google.android.gms.maps.model.LatLng;  
import com.google.android.gms.maps.model.MarkerOptions;  
  
public class MapsActivity extends FragmentActivity implements OnMapReadyCallback  
{  
  
 private GoogleMap mMap;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState)  
 {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_maps*);  
 // Obtain the SupportMapFragment and get notified when the map is ready to be used.  
 SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager().findFragmentById(R.id.*map*);  
 mapFragment.getMapAsync(this);  
 }  
  
@Override  
 public void onMapReady(GoogleMap googleMap) {  
 mMap = googleMap;  
  
 // Add a marker in Sydney and move the camera  
 LatLng sydney = new LatLng(-34, 151);  
 mMap.addMarker(new MarkerOptions().position(sydney).title("Marker in Sydney"));  
 mMap.moveCamera(CameraUpdateFactory.*newLatLng*(sydney));  
 }   
}

Result



Program No: 8

Program Name: Android Application that creates an alert upon receiving a message

XML Code:

<?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:layout\_margin="10dp"

    android:orientation="vertical">

    <TextView

        android:layout\_width="wrap\_content"

        android:layout\_height="wrap\_content"

        android:text="Message"

        android:textSize="30sp" />

    <EditText

        android:id="@+id/editText"

        android:layout\_width="match\_parent"

        android:layout\_height="wrap\_content"

        android:singleLine="true"

        android:textSize="30sp" />

    <Button

        android:id="@+id/button"

        android:layout\_width="wrap\_content"

        android:layout\_height="wrap\_content"

        android:layout\_margin="30dp"

        android:layout\_gravity="center"

        android:text="Notify"

        android:textSize="30sp"/>

</LinearLayout>

Java Code:

package com.example.exno10;

import android.app.Notification;

import android.app.NotificationManager;

import android.app.PendingIntent;

import android.content.Intent;

import android.os.Bundle;

import android.support.v7.app.AppCompatActivity;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity

{

    Button notify;

    EditText e;

    @Override

    protected void onCreate(Bundle savedInstanceState)

    {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity\_main);

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

        e= (EditText) findViewById(R.id.editText);

        notify.setOnClickListener(new View.OnClickListener()

        {

            @Override

            public void onClick(View v)

            {

                Intent intent = new Intent(MainActivity.this, SecondActivity.class);

                PendingIntent pending = PendingIntent.getActivity(MainActivity.this, 0, intent, 0);

                Notification noti = new Notification.Builder(MainActivity.this).setContentTitle("New Message").setContentText(e.getText().toString()).setSmallIcon(R.mipmap.ic\_launcher).setContentIntent(pending).build();

                NotificationManager manager = (NotificationManager) getSystemService(NOTIFICATION\_SERVICE);

                noti.flags |= Notification.FLAG\_AUTO\_CANCEL;

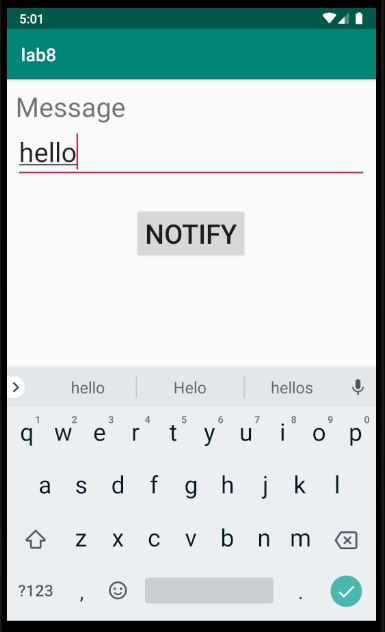
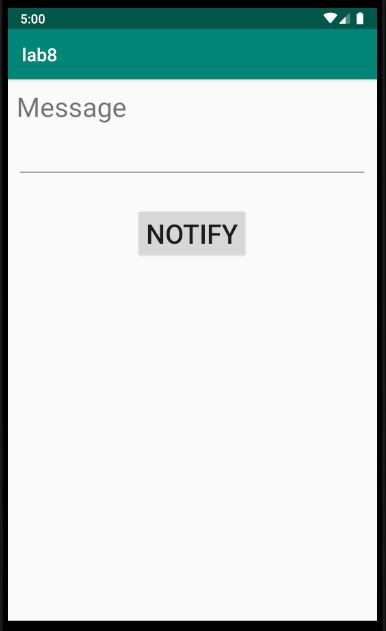
                manager.notify(0, noti);

            }

        });

    } }

Result



Program No: 9

Program Name: Android Application that implements Multi-threading

XML Code:

<?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" >

    <ImageView

        android:id="@+id/imageView"

        android:layout\_width="250dp"

        android:layout\_height="250dp"

        android:layout\_margin="50dp"

        android:layout\_gravity="center" />

    <Button

        android:id="@+id/button"

        android:layout\_width="wrap\_content"

        android:layout\_height="wrap\_content"

        android:layout\_margin="10dp"

        android:layout\_gravity="center"

        android:text="Load Image 1" />

    <Button

        android:id="@+id/button2"

        android:layout\_width="wrap\_content"

        android:layout\_height="wrap\_content"

        android:layout\_margin="10dp"

        android:layout\_gravity="center"

        android:text="Load image 2" />

</LinearLayout>

Java Code:

package com.example.lab9;

import android.os.Bundle;

import android.support.v7.app.AppCompatActivity;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity

{

    ImageView img;

    Button bt1,bt2;

    @Override

    protected void onCreate(Bundle savedInstanceState)

    {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity\_main);

        bt1 = (Button)findViewById(R.id.button);

        bt2= (Button) findViewById(R.id.button2);

        img = (ImageView)findViewById(R.id.imageView);

        bt1.setOnClickListener(new View.OnClickListener()

        {

            @Override

            public void onClick(View v)

            {

                new Thread(new Runnable()

                {

                    @Override

                    public void run()

                    {

                        img.post(new Runnable()

                        {

                            @Override

                            public void run()

                            {

                                img.setImageResource(R.drawable.india1);

                            }

                        });

                    }

                }).start();

            }

        });

        bt2.setOnClickListener(new View.OnClickListener()

        {

            @Override

            public void onClick(View v)

            {

                new Thread(new Runnable()

                {

                    @Override

                    public void run()

                    {

                        img.post(new Runnable()

                        {

                            @Override

                            public void run()

                            {

                                img.setImageResource(R.drawable.india2);

                            }

                        });

                    }

                }).start();

            }

        });

    }

}

Result

