Ex.No: 01

DEVELOP AN APPLICATION THAT USES GUI COMPONENTS, FONT AND COLORS

Aim:

To develop an application that uses GUI components fonts and colors.

Procedure:

- Open Android Studio and then click on File -> New -> New project**.**
- Type the Application name as "My Application**"** and click Next**.**
- Select the Empty Activity and click Next.
- Click Finish
- To design the layout: Click on app -> res -> layout -> activity_main.xml.
- Now click on Text and type the code given below
- Click on app -> java -> com.example.myapplication -> MainActivity and type the code given below
- Run the application to see the output in the android emulator.

Code:

Main Activity.java

```
package com.example.myapplication;
import android.graphics.Color;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity
{
   int ch=1;
   float font=30;
   @Override
   protected void onCreate(Bundle savedInstanceState)
   {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);
      final TextView t= (TextView) findViewById(R.id.textView);
```

```
Button b1= (Button) findViewById(R.id.button1);
b1.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
      t.setTextSize(font);
      font = font + 5;
      if (font == 50)
         font = 30;
   }
});
Button b2= (Button) findViewById(R.id.button2);
b2.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
      switch (ch) {
         case 1:
            t.setTextColor(Color.RED);
            break;
         case 2:
            t.setTextColor(Color.GREEN);
            break;
         case 3:
            t.setTextColor(Color.BLUE);
            break;
         case 4:
            t.setTextColor(Color.CYAN);
            break;
         case 5:
            t.setTextColor(Color.YELLOW);
            break;
         case 6:
            t.setTextColor(Color.MAGENTA);
            break;
      }
      ch++;
      if (ch == 7)
```

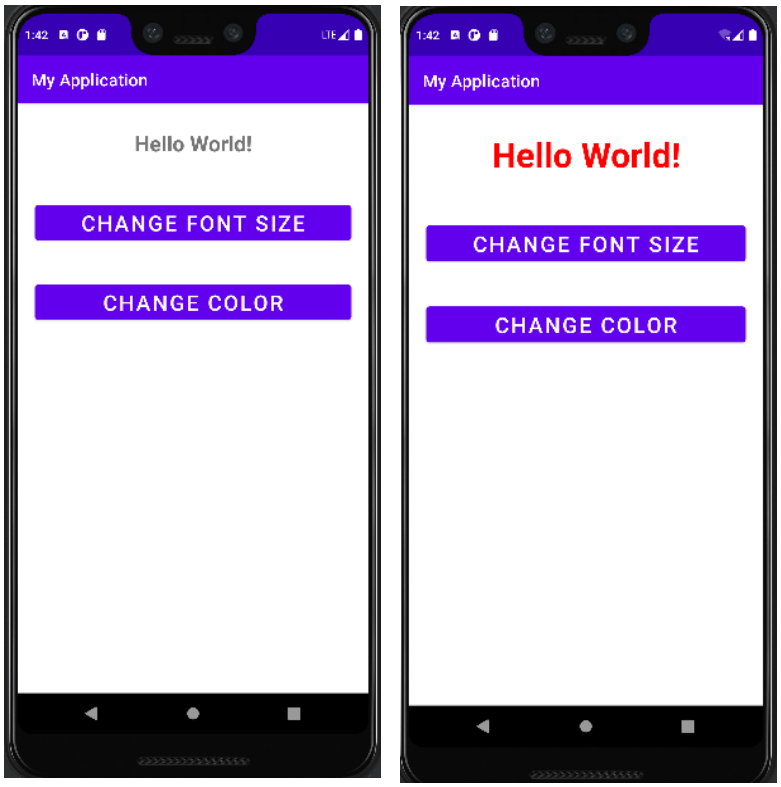
```
                ch = 1;
            }
        });
    }
}
```

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="30dp"
        android:gravity="center"
        android:text="Hello World!"
        android:textSize="25sp"
        android:textStyle="bold" />

    <Button
        android:id="@+id/button1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:gravity="center"
        android:text="Change font size"
        android:textSize="25sp" />
    <Button
        android:id="@+id/button2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
```

```
        android:gravity="center"
        android:text="Change color"
        android:textSize="25sp" />
</LinearLayout>
```

Output:



Result:

Thus, the application that uses GUI components fonts and colors has been implemented successfully.

Ex.No: 02

DEVELOP AN APPLICATION THAT USES LAYOUT MANAGERS AND EVENT LISTENERS

Aim:

To develop a Simple Android Application that uses Layout Managers and Event Listeners.

Procedure:

- Open Android Studio and then click on File -> New -> New project.
- Type the Application name as “My Application” and click Next.
- Select the Empty Activity and click Next.
- Click Finish
- To design the layout: Click on app -> res -> layout -> activity_main.xml.
- Now click on Text and type the code given below
- For creating the Second Activity, Click on File -> New -> Activity -> Empty Activity.
- Type the Activity Name as SecondActivity and click Finish button.
- Now click on Text and type the code given below
- Click on app -> java -> com.example.myapplication -> MainActivity and type the code given below
- Run the application to see the output in the android emulator.

Code:

MainActivity.java

```
package com.example.myapplication;

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

public class MainActivity extends AppCompatActivity {

   //Defining the Views
   EditText e1,e2;
   Button bt;
   Spinner s;

   //Data for populating in Spinner
   String [] dept_array={"CSE","ECE","IT","Mech","Civil"};
```

```
   String name,reg,dept;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);

      //Referring the Views
      e1= (EditText) findViewById(R.id.editText);
      e2= (EditText) findViewById(R.id.editText2);

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

      s= (Spinner) findViewById(R.id.spinner);

      //Creating Adapter for Spinner for adapting the data from array to Spinner
      ArrayAdapter adapter= new
ArrayAdapter(MainActivity.this,android.R.layout.simple_spinner_item,dept_array);
      s.setAdapter(adapter);

      //Creating Listener for Button
      bt.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {

            //Getting the Values from Views(Edittext & Spinner)
            name=e1.getText().toString();
            reg=e2.getText().toString();
            dept=s.getSelectedItem().toString();

            //Intent For Navigating to Second Activity
            Intent i = new Intent(MainActivity.this,SecondActivity.class);

            //For Passing the Values to Second Activity
            i.putExtra("name_key", name);
            i.putExtra("reg_key",reg);
            i.putExtra("dept_key", dept);

            startActivity(i);

         }
      });
   }
}
```

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity">

   <LinearLayout
      android:layout_width="match_parent"
      android:layout_height="100dp">
      <TextView
         android:id="@+id/textView"
         android:layout_width="match_parent"
         android:layout_height="wrap_content"
         android:layout_margin="30dp"
         android:text="Details Form"
         android:textSize="25sp"
         android:gravity="center"/>
   </LinearLayout>

   <GridLayout
      android:id="@+id/gridLayout"
      android:layout_width="match_parent"
      android:layout_height="match_parent"
      android:layout_marginTop="100dp"
      android:layout_marginBottom="200dp"
      android:columnCount="2"
      android:rowCount="3">
      <TextView
         android:id="@+id/textView1"
         android:layout_width="wrap_content"
         android:layout_height="wrap_content"
         android:layout_margin="10dp"
         android:layout_row="0"
         android:layout_column="0"
         android:text="Name"
         android:textSize="20sp"
         android:gravity="center"/>

      <EditText
         android:id="@+id/editText"
         android:layout_width="wrap_content"
         android:layout_height="wrap_content"
         android:layout_margin="10dp"
         android:layout_row="0"
         android:layout_column="1"
```

```
        android:ems="10"/>

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="1"
        android:layout_column="0"
        android:text="Reg.No"
        android:textSize="20sp"
        android:gravity="center"/>

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="1"
        android:layout_column="1"
        android:inputType="number"
        android:ems="10"/>

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="2"
        android:layout_column="0"
        android:text="Dept"
        android:textSize="20sp"
        android:gravity="center"/>

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_row="2"
        android:layout_column="1"
        android:spinnerMode="dropdown"/>

</GridLayout>

<Button
```

```
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_centerInParent="true"
    android:layout_marginBottom="150dp"
    android:text="Submit"/>

</RelativeLayout>
```

SecondActivity.java

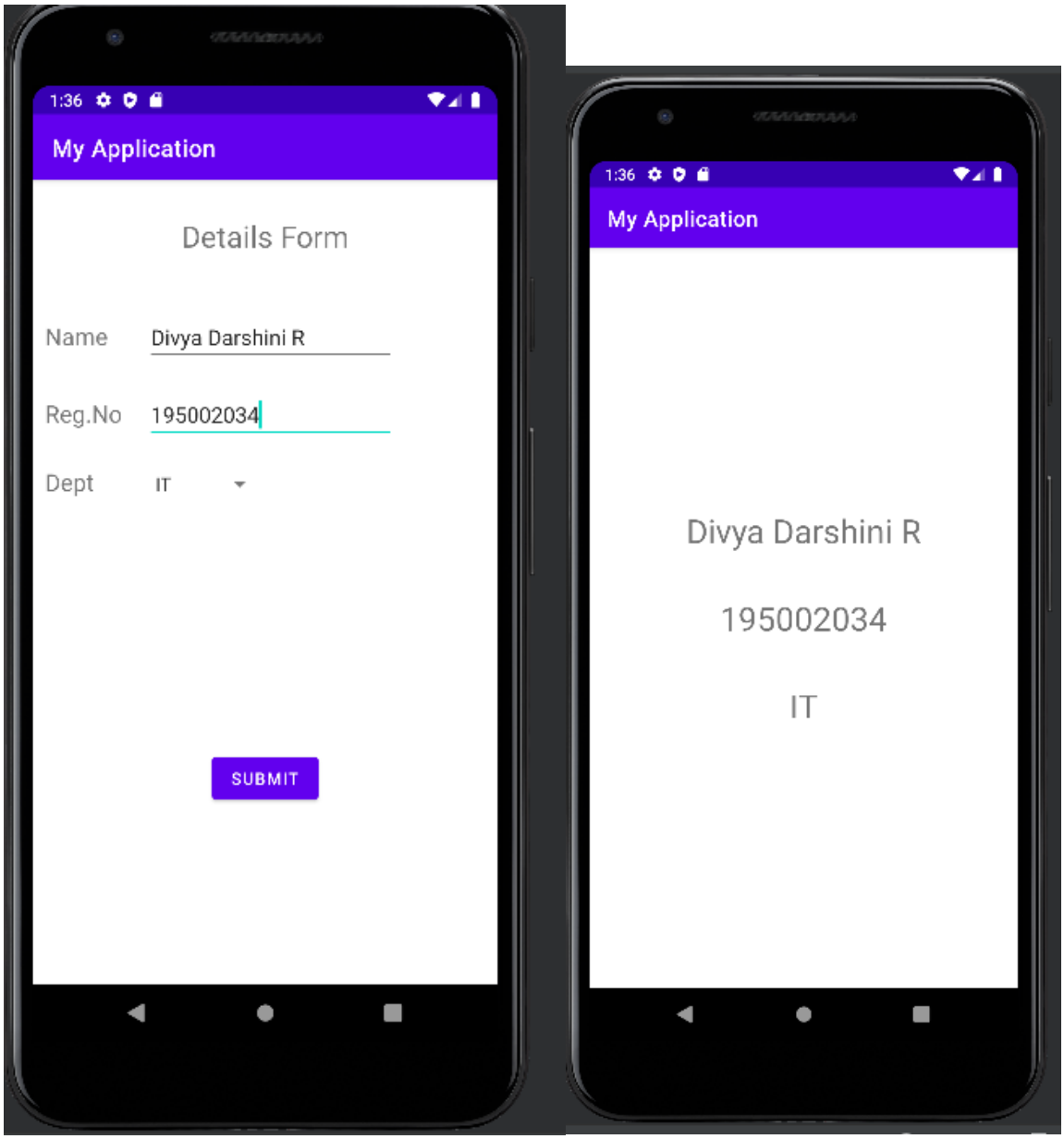
```
package com.example.myapplication;

import android.content.Intent;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {

   TextView t1,t2,t3;

   String name,reg,dept;

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

      t1= (TextView) findViewById(R.id.textView1);
      t2= (TextView) findViewById(R.id.textView2);
      t3= (TextView) findViewById(R.id.textView3);

      //Getting the Intent
      Intent i = getIntent();

      //Getting the Values from First Activity using the Intent received
      name=i.getStringExtra("name_key");
      reg=i.getStringExtra("reg_key");
      dept=i.getStringExtra("dept_key");

      //Setting the Values to Intent
      t1.setText(name);
      t2.setText(reg);
```

```
        t3.setText(dept);

    }
}
```

Activity_second.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="com.example.myapplication.SecondActivity"
    android:orientation="vertical"
    android:gravity="center">

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="New Text"
        android:textSize="30sp"/>

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="New Text"
        android:textSize="30sp"/>

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="New Text"
        android:textSize="30sp"/>

</LinearLayout>
```

Output:



Result:

Thus, a Simple Android Application that uses Layout Managers and Event Listeners has been implemented successfully.

Ex.No: 03

DEVELOP A NATIVE CALCULATOR APPLICATION

Aim:

To develop a Simple Android Application for Native Calculator.

Procedure:

- Open Android Studio and then click on File -> New -> New project**.**
- Type the Application name as "My Application**"** and click Next**.**
- Select the Empty Activity and click Next.
- Click Finish
- To design the layout: Click on app -> res -> layout -> activity_main.xml.
- Now click on Text and type the code given below
- Click on app -> java -> com.example.myapplication -> MainActivity and type the code given below
- Run the application to see the output in the android emulator.

Code:

MainActivity.java

```
package com.example.myapplication;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.text.TextUtils;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity implements OnClickListener
{
  //Defining the Views
  EditText Num1;
  EditText Num2;
  Button Add;
  Button Sub;
```

```
Button Mul;
Button Div;
TextView Result;

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

   //Referring the Views
   Num1 = (EditText) findViewById(R.id.editText1);
   Num2 = (EditText) findViewById(R.id.editText2);
   Add = (Button) findViewById(R.id.Add);
   Sub = (Button) findViewById(R.id.Sub);
   Mul = (Button) findViewById(R.id.Mul);
   Div = (Button) findViewById(R.id.Div);
   Result = (TextView) findViewById(R.id.textView);

   // set a listener
   Add.setOnClickListener(this);
   Sub.setOnClickListener(this);
   Mul.setOnClickListener(this);
   Div.setOnClickListener(this);
}

@Override
public void onClick (View v)
{

   float num1 = 0;
   float num2 = 0;
   float result = 0;
   String oper = "";
```

```
//check if the fields are empty
if(TextUtils.isEmpty(Num1.getText().toString())||TextUtils.isEmpty(Num2.getText().toString()))
        return;

    // read EditText and fill variables with numbers
    num1 = Float.parseFloat(Num1.getText().toString());
    num2 = Float.parseFloat(Num2.getText().toString());

    // defines the button that has been clicked and performs the corresponding operation

    // write operation into oper, we will use it later for output

    switch (v.getId())
    {
      case R.id.Add:
        oper = "+";
        result = num1 + num2;
        break;
      case R.id.Sub:
        oper = "-";
        result = num1 - num2;
        break;
      case R.id.Mul:
        oper = "*";
        result = num1 * num2;
        break;
      case R.id.Div:
        oper = "/";
        result = num1 / num2;
        break;
      default:
        break;
    }


    // form the output line
```

```
        Result.setText(num1 + " " + oper + " " + num2 + " = " + result);
    }
}
```

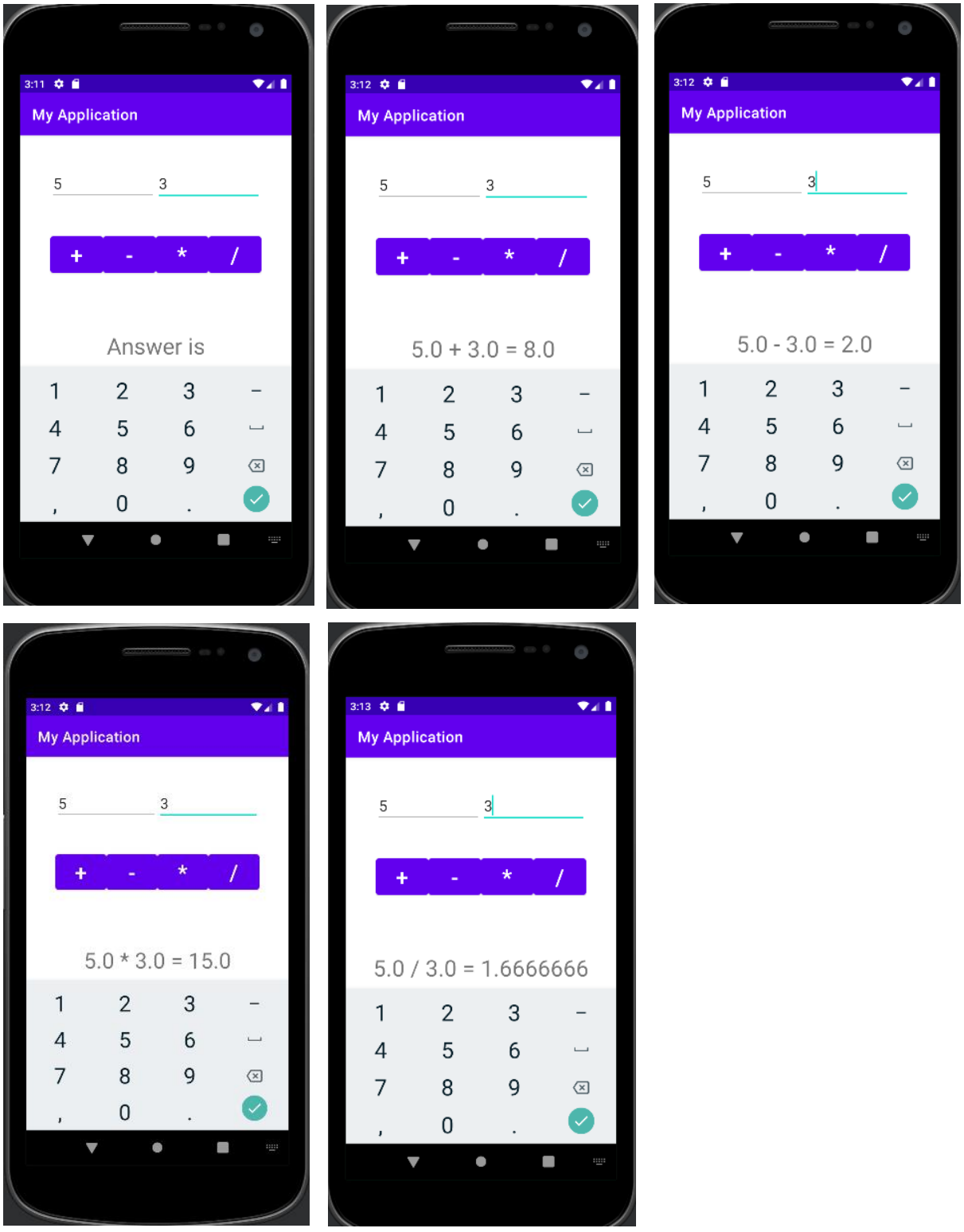
Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="20dp">

    <LinearLayout
        android:id="@+id/linearLayout1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp">

        <EditText
            android:id="@+id/editText1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:inputType="numberDecimal"
            android:textSize="20sp" />

        <EditText
            android:id="@+id/editText2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
```

```
        android:layout_weight="1"
        android:inputType="numberDecimal"
        android:textSize="20sp" />
</LinearLayout>

<LinearLayout
    android:id="@+id/linearLayout2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="20dp">

    <Button
        android:id="@+id/Add"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="+"
        android:textSize="30sp"/>

    <Button
        android:id="@+id/Sub"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="-"
        android:textSize="30sp"/>

    <Button
        android:id="@+id/Mul"
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="*"
        android:textSize="30sp"/>

    <Button
        android:id="@+id/Div"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="/"
        android:textSize="30sp"/>

  </LinearLayout>
  <TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="50dp"
    android:text="Answer is"
    android:textSize="30sp"
    android:gravity="center"/>
</LinearLayout>
```

Output:



Result:

Thus, a Simple Android Application for Native Calculator has been implemented successfully.

Ex.No: 04

WRITE AN APPLICATION THAT DRAWS BASIC GRAPHICAL PRIMITIVES ON THE SCREEN

Aim:

To develop a Simple Android Application that draws basic Graphical Primitives on the screen.

Procedure:

- Open Android Studio and then click on File -> New -> New project**.**
- Type the Application name as "My Application**"** and click Next**.**
- Select the Empty Activity and click Next.
- Click Finish
- To design the layout: Click on app -> res -> layout -> activity_main.xml.
- Now click on Text and type the code given below
- Click on app -> java -> com.example.myapplication -> MainActivity and type the code given below
- Run the application to see the output in the android emulator.

Code:

MainActivity.java

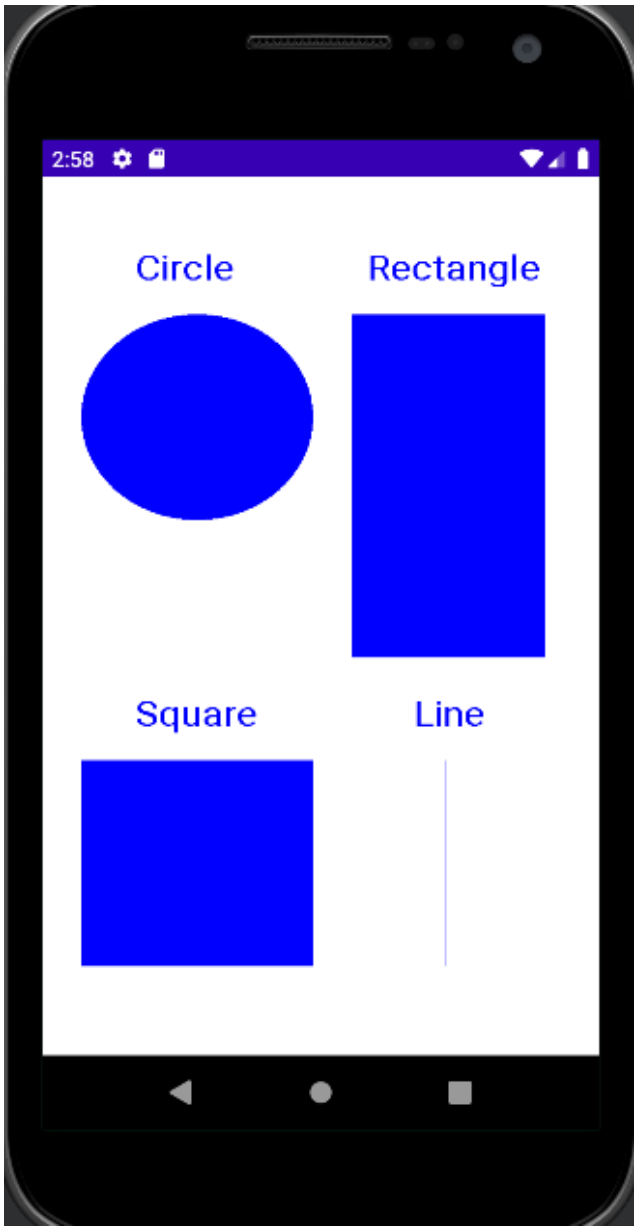
```
package com.example.myapplication;

import android.app.Activity;
import android.graphics.Bitmap;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.drawable.BitmapDrawable;
import android.os.Bundle;
import android.widget.ImageView;

public class MainActivity extends Activity
{
   @Override
   public void onCreate(Bundle savedInstanceState)
   {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);

      //Creating a Bitmap
```

```
        Bitmap bg = Bitmap.createBitmap(720, 1280, Bitmap.Config.ARGB_8888);

        //Setting the Bitmap as background for the ImageView
        ImageView i = (ImageView) findViewById(R.id.imageView);
        i.setBackgroundDrawable(new BitmapDrawable(bg));

        //Creating the Canvas Object
        Canvas canvas = new Canvas(bg);

        //Creating the Paint Object and set its color & TextSize
        Paint paint = new Paint();
        paint.setColor(Color.BLUE);
        paint.setTextSize(50);

        //To draw a Rectangle
        canvas.drawText("Rectangle", 420, 150, paint);
        canvas.drawRect(400, 200, 650, 700, paint);

        //To draw a Circle
        canvas.drawText("Circle", 120, 150, paint);
        canvas.drawCircle(200, 350, 150, paint);

        //To draw a Square
        canvas.drawText("Square", 120, 800, paint);
        canvas.drawRect(50, 850, 350, 1150, paint);

        //To draw a Line
        canvas.drawText("Line", 480, 800, paint);
        canvas.drawLine(520, 850, 520, 1150, paint);
    }
}
```

activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/imageView" />
</RelativeLayout>
```

Output:



Result:

Thus, a Simple Android Application that draws basic Graphical Primitives on the screen has been implemented successfully.

Ex.No: 05

DEVELOP AN APPLICATION THAT MAKES USE OF DATABASE

Aim:

To develop a Simple Android Application that makes use of Database.

Procedure:

- Open Android Studio and then click on File -> New -> New project**.**
- Type the Application name as "My Application**"** and click Next**.**
- Select the Empty Activity and click Next.
- Click Finish
- To design the layout: Click on app -> res -> layout -> activity_main.xml.
- Now click on Text and type the code given below
- Click on app -> java -> com.example.myapplication -> MainActivity and type the code given below
- Run the application to see the output in the android emulator

Code:

MainActivity.java

```
package com.example.myapplication;

import android.app.Activity;
import android.app.AlertDialog.Builder;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends Activity implements OnClickListener
{
   EditText Rollno,Name,Marks;
   Button Insert,Delete,Update,View,ViewAll;
   SQLiteDatabase db;
```

```
  /** Called when the activity is first created. */
  @Override
  public void onCreate(Bundle savedInstanceState)
  {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    Rollno=(EditText)findViewById(R.id.Rollno);
    Name=(EditText)findViewById(R.id.Name);
    Marks=(EditText)findViewById(R.id.Marks);
    Insert=(Button)findViewById(R.id.Insert);
    Delete=(Button)findViewById(R.id.Delete);
    Update=(Button)findViewById(R.id.Update);
    View=(Button)findViewById(R.id.View);
    ViewAll=(Button)findViewById(R.id.ViewAll);

    Insert.setOnClickListener(this);
    Delete.setOnClickListener(this);
    Update.setOnClickListener(this);
    View.setOnClickListener(this);
    ViewAll.setOnClickListener(this);

    // Creating database and table
    db=openOrCreateDatabase("StudentDB", Context.MODE_PRIVATE, null);
    db.execSQL("CREATE TABLE IF NOT EXISTS student(rollno VARCHAR,name VARCHAR,marks
VARCHAR);");
  }
  public void onClick(View view)
  {
    // Inserting a record to the Student table
    if(view==Insert)
    {
      // Checking for empty fields
      if(Rollno.getText().toString().trim().length()==0||
          Name.getText().toString().trim().length()==0||
          Marks.getText().toString().trim().length()==0)
```

```
    {
       showMessage("Error", "Please enter all values");
       return;
    }
    db.execSQL("insert into students ('"+Rollno.getText()+"','"+Name.getText()+
          "','"+Marks.getText()+"');");
    showMessage("Success", "Record added");
    clearText();
}
// Deleting a record from the Student table
if(view==Delete)
{
    // Checking for empty roll number
    if(Rollno.getText().toString().trim().length()==0)
    {
       showMessage("Error", "Please enter Rollno");
       return;
    }
    Cursor c=db.rawQuery("SELECT * FROM student WHERE rollno='"+Rollno.getText()+"'", null);
    if(c.moveToFirst())
    {
       db.execSQL("DELETE FROM student WHERE rollno='"+Rollno.getText()+"'");
       showMessage("Success", "Record Deleted");
    }
    else
    {
       showMessage("Error", "Invalid Rollno");
    }
    clearText();
}
// Updating a record in the Student table
if(view==Update)
{
    // Checking for empty roll number
    if(Rollno.getText().toString().trim().length()==0)
    {
```

```
            showMessage("Error", "Please enter Rollno");
            return;
        }
        Cursor c=db.rawQuery("SELECT * FROM student WHERE rollno='"+Rollno.getText()+"'", null);
        if(c.moveToFirst()) {
            db.execSQL("UPDATE student SET name='" + Name.getText() + "',marks='" + Marks.getText()
+
                  "' WHERE rollno='"+Rollno.getText()+"'");
            showMessage("Success", "Record Modified");
        }
        else {
            showMessage("Error", "Invalid Rollno");
        }
        clearText();
    }
    // Display a record from the Student table
    if(view==View)
    {
        // Checking for empty roll number
        if(Rollno.getText().toString().trim().length()==0)
        {
            showMessage("Error", "Please enter Rollno");
            return;
        }
        Cursor c=db.rawQuery("SELECT * FROM student WHERE rollno='"+Rollno.getText()+"'", null);
        if(c.moveToFirst())
        {
            Name.setText(c.getString(1));
            Marks.setText(c.getString(2));
        }
        else
        {
            showMessage("Error", "Invalid Rollno");
            clearText();
        }
    }
```

```
        // Displaying all the records
        if(view==ViewAll)
        {
            Cursor c=db.rawQuery("SELECT * FROM student", null);
            if(c.getCount()==0)
            {
                showMessage("Error", "No records found");
                return;
            }
            StringBuffer buffer=new StringBuffer();
            while(c.moveToNext())
            {
                buffer.append("Rollno: "+c.getString(0)+"\n");
                buffer.append("Name: "+c.getString(1)+"\n");
                buffer.append("Marks: "+c.getString(2)+"\n\n");
            }
            showMessage("Student Details", buffer.toString());
        }
    }
    public void showMessage(String title,String message)
    {
        Builder builder=new Builder(this);
        builder.setCancelable(true);
        builder.setTitle(title);
        builder.setMessage(message);
        builder.show();
    }
    public void clearText()
    {
        Rollno.setText("");
        Name.setText("");
        Marks.setText("");
        Rollno.requestFocus();
    }
}.
```

activity_main.xml:

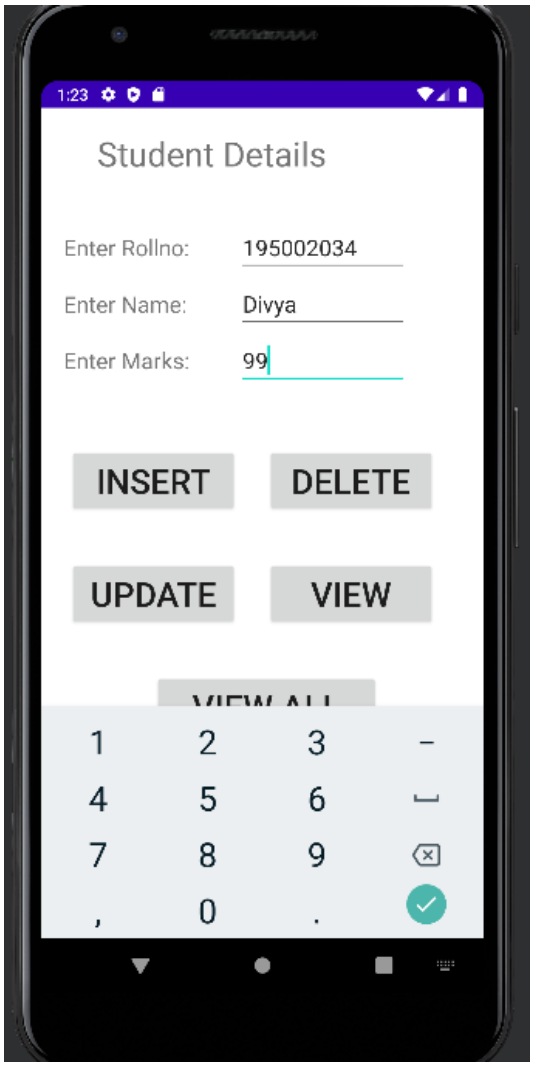
```
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:layout_width="match_parent"
   android:layout_height="match_parent">
   <TextView
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_x="50dp"
      android:layout_y="20dp"
      android:text="Student Details"
      android:textSize="30sp" />

   <TextView
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_x="20dp"
      android:layout_y="110dp"
      android:text="Enter Rollno:"
      android:textSize="20sp" />

   <EditText
      android:id="@+id/Rollno"
      android:layout_width="150dp"
      android:layout_height="wrap_content"
      android:layout_x="175dp"
      android:layout_y="100dp"
      android:inputType="number"
      android:textSize="20sp" />

   <TextView
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_x="20dp"
      android:layout_y="160dp"
      android:text="Enter Name:"
      android:textSize="20sp" />

   <EditText
      android:id="@+id/Name"
      android:layout_width="150dp"
      android:layout_height="wrap_content"
      android:layout_x="175dp"
      android:layout_y="150dp"
```

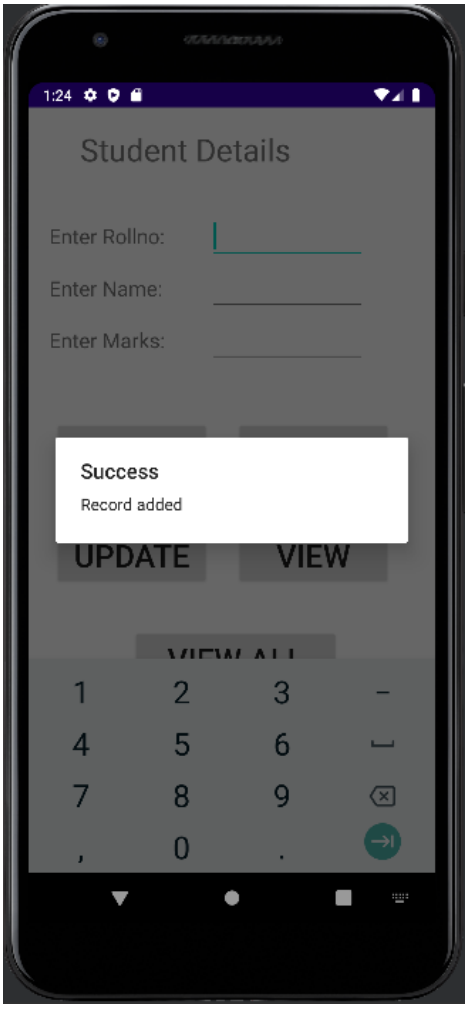
```
   android:inputType="text"
   android:textSize="20sp" />

<TextView
   android:layout_width="wrap_content"
   android:layout_height="wrap_content"
   android:layout_x="20dp"
   android:layout_y="210dp"
   android:text="Enter Marks:"
   android:textSize="20sp" />

<EditText
   android:id="@+id/Marks"
   android:layout_width="150dp"
   android:layout_height="wrap_content"
   android:layout_x="175dp"
   android:layout_y="200dp"
   android:inputType="number"
   android:textSize="20sp" />

<Button
   android:id="@+id/Insert"
   android:layout_width="150dp"
   android:layout_height="wrap_content"
   android:layout_x="25dp"
   android:layout_y="300dp"
   android:text="Insert"
   android:textSize="30dp" />

<Button
   android:id="@+id/Delete"
   android:layout_width="150dp"
   android:layout_height="wrap_content"
   android:layout_x="200dp"
   android:layout_y="300dp"
   android:text="Delete"
   android:textSize="30dp" />

<Button
   android:id="@+id/Update"
   android:layout_width="150dp"
   android:layout_height="wrap_content"
   android:layout_x="25dp"
   android:layout_y="400dp"
   android:text="Update"
   android:textSize="30dp" />
```

```
    <Button
        android:id="@+id/View"
        android:layout_width="150dp"
        android:layout_height="wrap_content"
        android:layout_x="200dp"
        android:layout_y="400dp"
        android:text="View"
        android:textSize="30dp" />

    <Button
        android:id="@+id/ViewAll"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_x="100dp"
        android:layout_y="500dp"
        android:text="View All"
        android:textSize="30dp" />

</AbsoluteLayout>
```

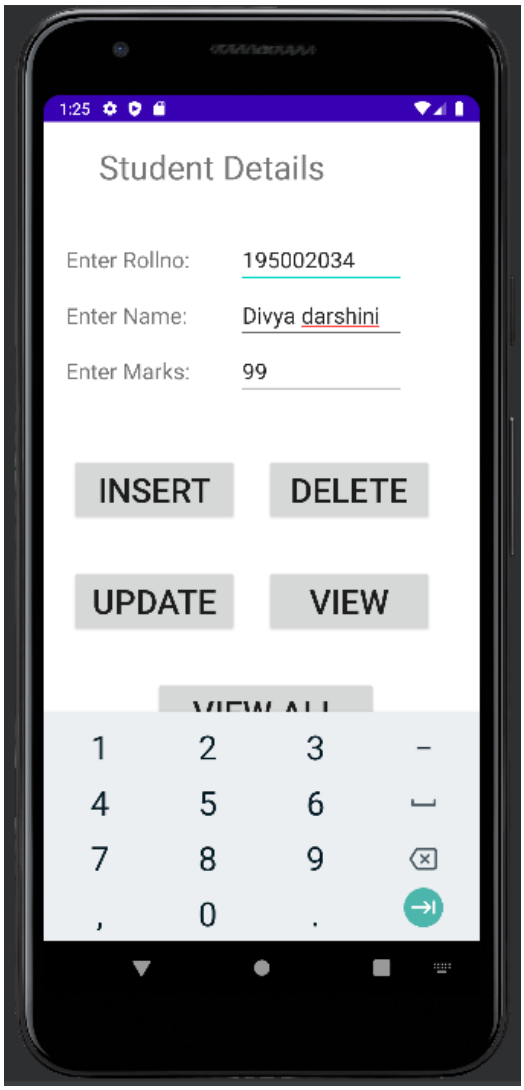
Output:

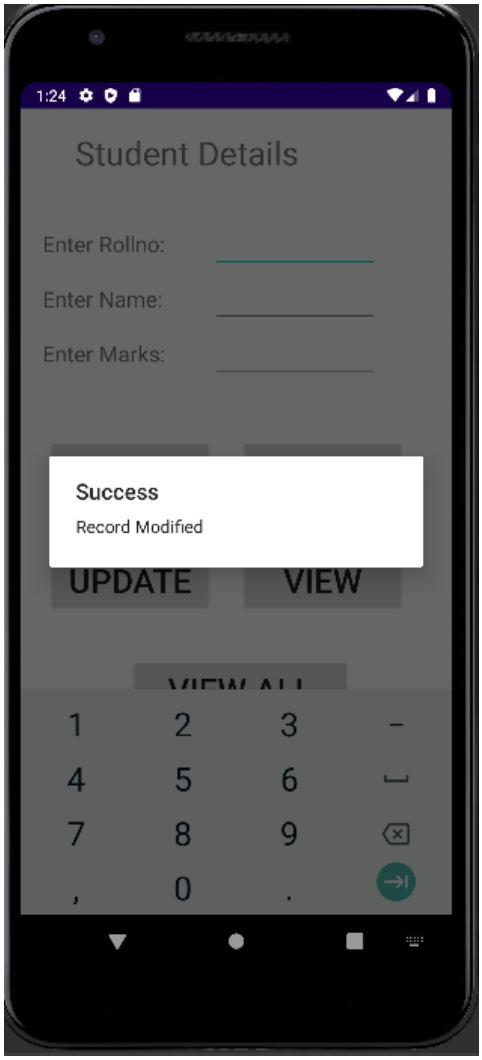
Insertion

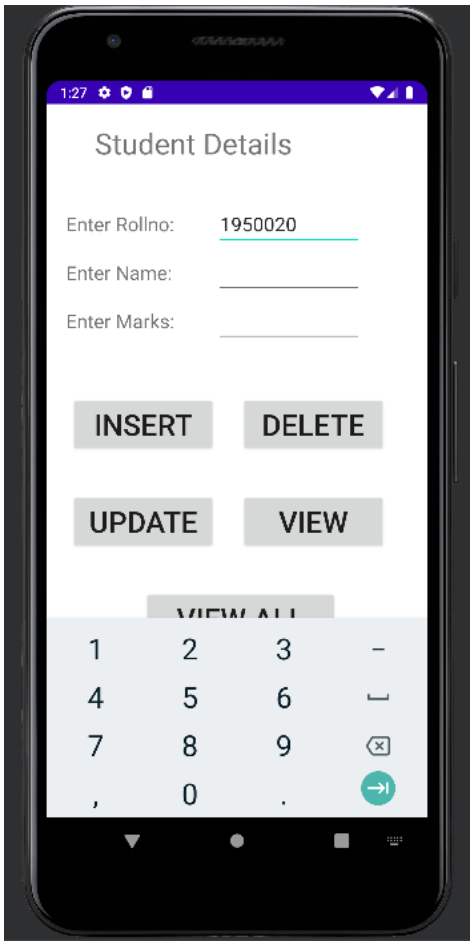

1:23
Student Details
Enter Rollno:
195002034
Enter Name:
Divya
Enter Marks:
99
INSERT
DELETE
UPDATE
VIEW

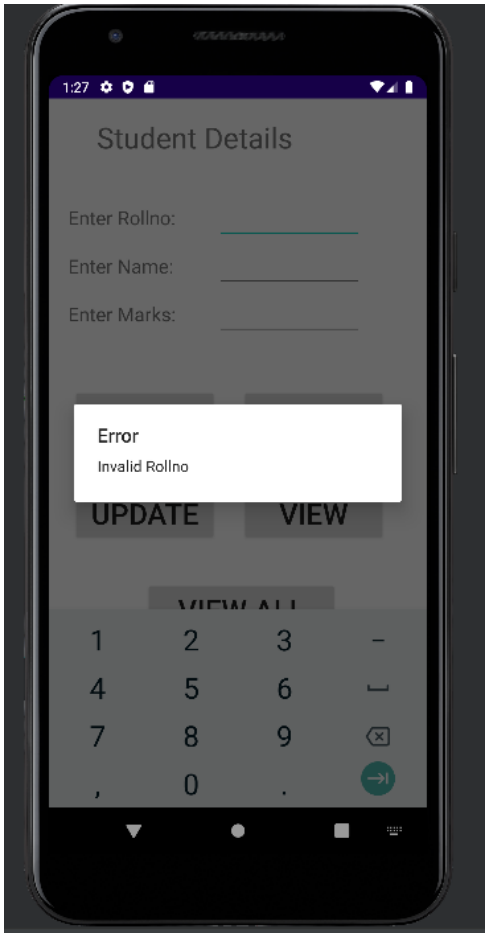

1:24
Student Details
Enter Rollno:
Enter Name:
Enter Marks:
Success
Record added
UPDATE
VIEW

Updation

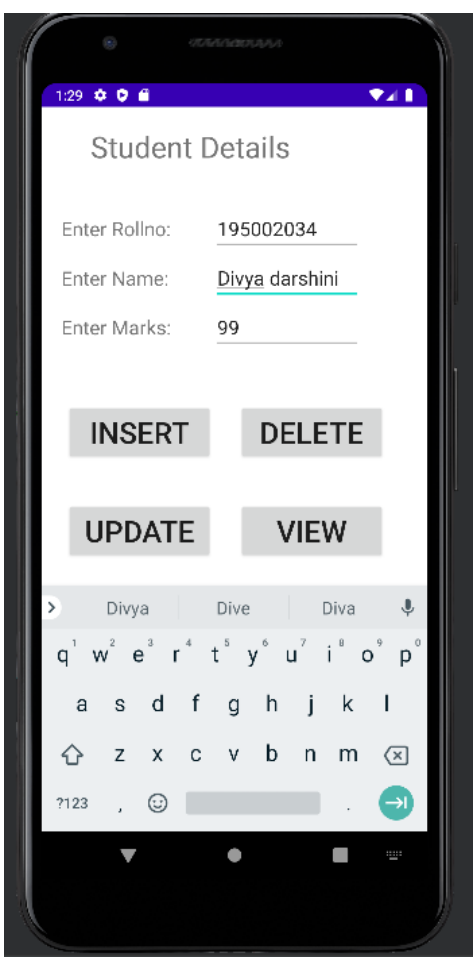

1:25
Student Details
Enter Rollno:
195002034
Enter Name:
Divya darshini
Enter Marks:
99
INSERT
DELETE
UPDATE
VIEW
1 2 3
4 5 6
7 8 9
, 0 .

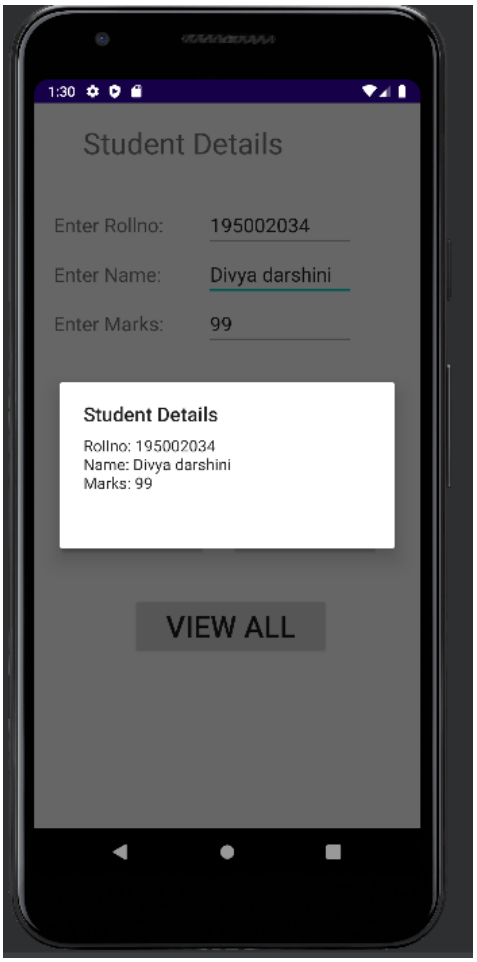

1:24
Student Details
Enter Rollno:
Enter Name:
Enter Marks:
Success
Record Modified
UPDATE
VIEW
1 2 3
4 5 6
7 8 9
, 0 .


1:27
Student Details
Enter Rollno: 1950020
Enter Name:
Enter Marks:
INSERT
DELETE
UPDATE
VIEW
1 2 3 -
4 5 6
7 8 9
, 0 .

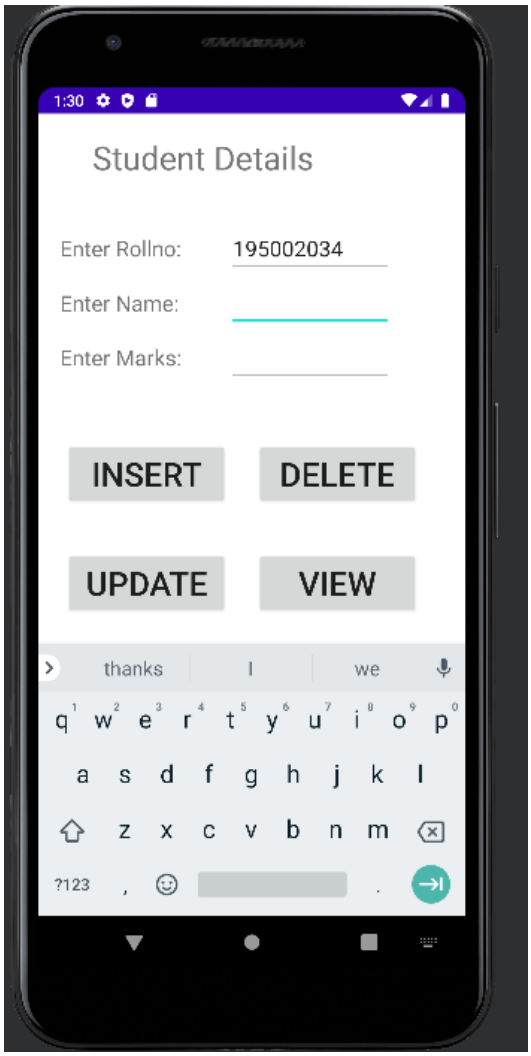

1:27
Student Details
Enter Rollno:
Enter Name:
Enter Marks:
Error
Invalid Rollno
UPDATE
VIEW
1 2 3 -
4 5 6
7 8 9
, 0 .

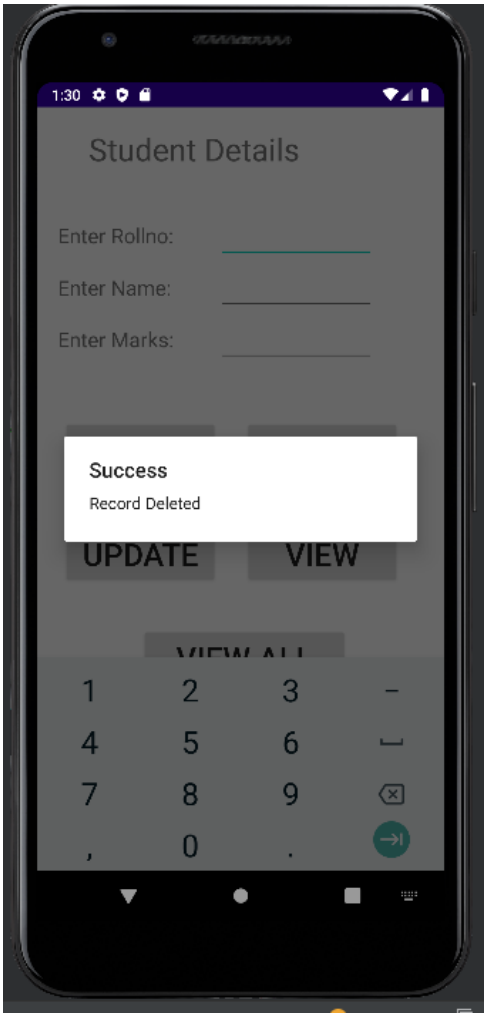
View


1:29
Student Details
Enter Rollno:
195002034
Enter Name:
Divya darshini
Enter Marks:
99
INSERT
DELETE
UPDATE
VIEW
Divya
Dive
Diva


1:30
Student Details
Enter Rollno:
195002034
Enter Name:
Divya darshini
Enter Marks:
99
Student Details
Rollno: 195002034
Name: Divya darshini
Marks: 99
VIEW ALL

Delete





Result:

Thus, a simple Android Application that makes use of Database has been implemented successfully.