

EXPERIMENT NO:06

DATE:

AIM: Find Sum of Two Numbers and Display the Value on Toast.

MainActivity.java file

```
public class MainActivity extends AppCompatActivity
```

```
{
```

```
private EditText value1,value2;
```

```
private Button sum;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState)
```

```
{
```

```
    super.onCreate(savedInstanceState)
```

```
    ;
```

```
    setContentView(R.layout.activity_
```

```
    main);addListenerOnButton();
```

```
}
```

```
public void addListenerOnButton()
```

```
{
```

```
    value1=(EditText)findViewById(R.i  
    d.entry1);
```

```
    value2=(EditText)findViewById(R.i  
    d.entry2);
```

```
    sum=(Button)findViewById(R.id.bu  
    tton);
```

```
    sum.setOnClickListener(new View.OnClickListener()
```

```
{
```

```

@Override
public void onClick(View v) {
    String e1=value1.getText().toString();
    String e2=value2.getText().toString();
    int a=Integer.parseInt(e1);
    int sum=a+b;

    Toast.makeText(getApplicationContext(),String.valueOf(sum),Toast.LENGTH_LONG).show(
);
}
});
}
}

```

activity_main.xml

```

<?xmlversion="1.0"encoding="utf-8"?>

<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:orientation="vertical"

    xmlns:android=http://schemas.android.com/apk/res/android>

    <EditText

        android:layout_width="wrap_
        content"

        android:layout_height="wrap_
        content"

        android:id="@+id/entry1"/>

```

```
<EditText
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:id="@+id/entry2"/>
```

```
<Button
```

```
    android:layout_width="wrap_content"
```

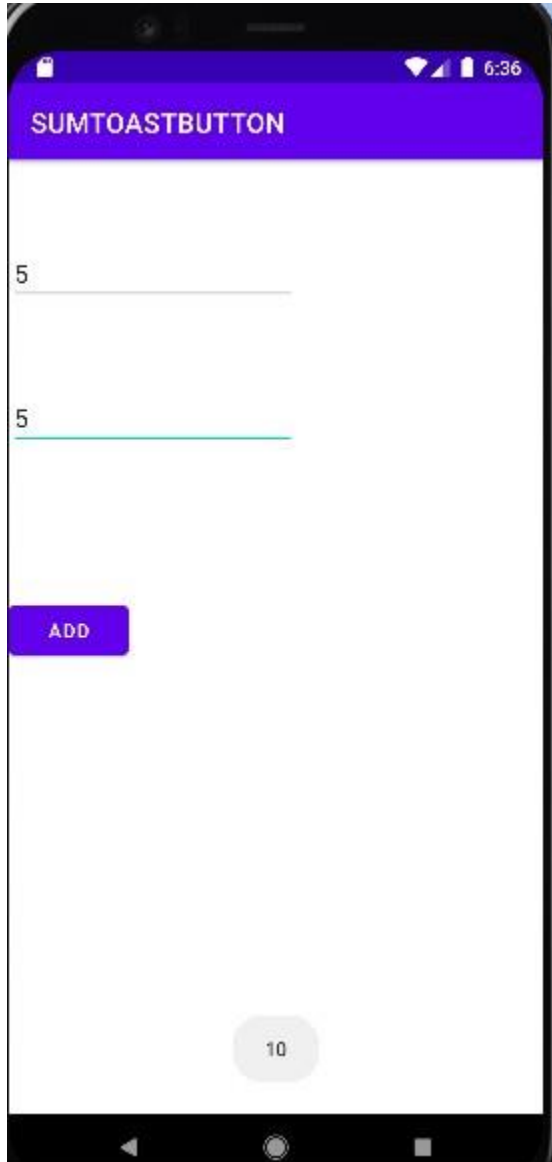
```
    android:layout_height="wrap_content"
```

```
    android:id="@+id/button"
```

```
    android:text="Add"/>
```

```
</LinearLayout>
```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

LABCYCLE:2

EXPERIMENT NO:07

DATE:

AIM: Android to Demonstrate The Use of Implicit Intent

MainActivity.java file

```
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        EditText editText;

        Button button;

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        button = findViewById(R.id.btn);

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

        button.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                String url=editText.getText().toString();

                Intent intent = new Intent(Intent.ACTION_VIEW, Uri.parse(url));

                startActivity(intent);

            }

        });

    }

}
```

activity_main.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/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>

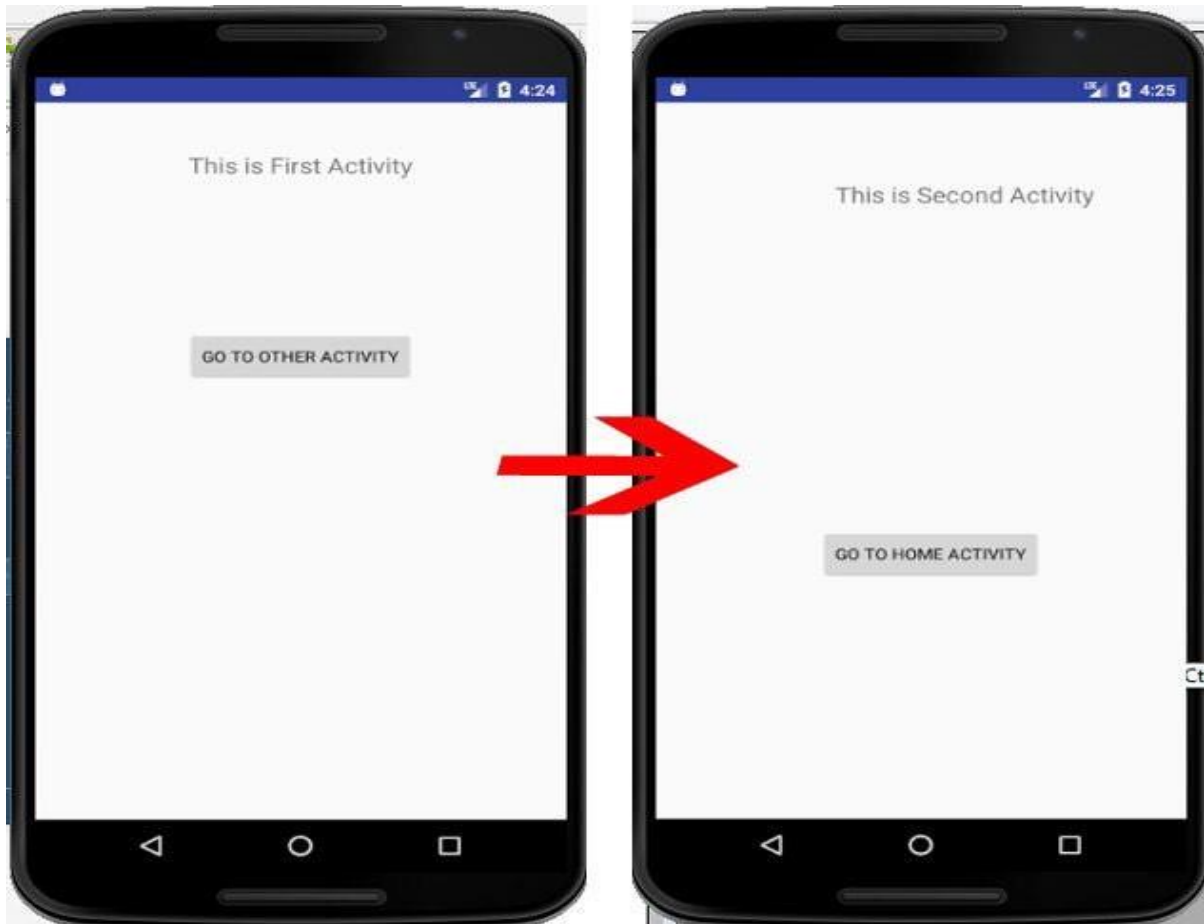
    <Button android:id="@+id/btn"
        android:text="Search" android:onClick="search"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/editText"/>
```

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

OUTPUT:



RESULT: The program was implemented and result obtained successfully.

EXPERIMENT NO:08

DATE:

AIM: Android Program To Demonstrate Explicit Intent.

Mainactivity.java file

```
Package    com.example.intent;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.content.Intent;
import android.view.View;

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

    public void newsScreen(View view) {
        Intent i=new Intent(getApplicationContext(),MainActivity2.class);
        startActivity(i);
    }
}
```

Main Activity2.java file

```
package com.example.intent;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }
}
```

```

public void homeScreen(View view) {
    Intent i = new Intent(getApplicationContext(),
        MainActivity.class);startActivity(i);
}
}

```

activity_main.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">

    <TextView
        android:id="@+id/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Welcome to Home Screen"
        android:textAlignment="center"
        android:textSize="28sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/btn1"
        android:text="Go to News Screen"
        android:onClick="newsScreen"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editText" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

activity_main2.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=".MainActivity2">

    <TextView
      android:id="@+id/editText"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:text="Welcome to GFG News
      Screen" android:textAlignment="center"
      android:textSize="28sp"
      app:layout_constraintBottom_toBottomOf="parent"
      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintHorizontal_bias="0.0"
      app:layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toTopOf="parent" />
    <Button
      android:id="@+id/btn2" android:text="Go to Home Screen"
      android:onClick="homeScreen"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      app:layout_constraintBottom_toBottomOf="parent"
      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toBottomOf="@+id/editText" />
  </androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

EXPERIMENT NO:09

DATE:

AIM: Create a Facebook Page using RelativeLayout; set properties using.xml

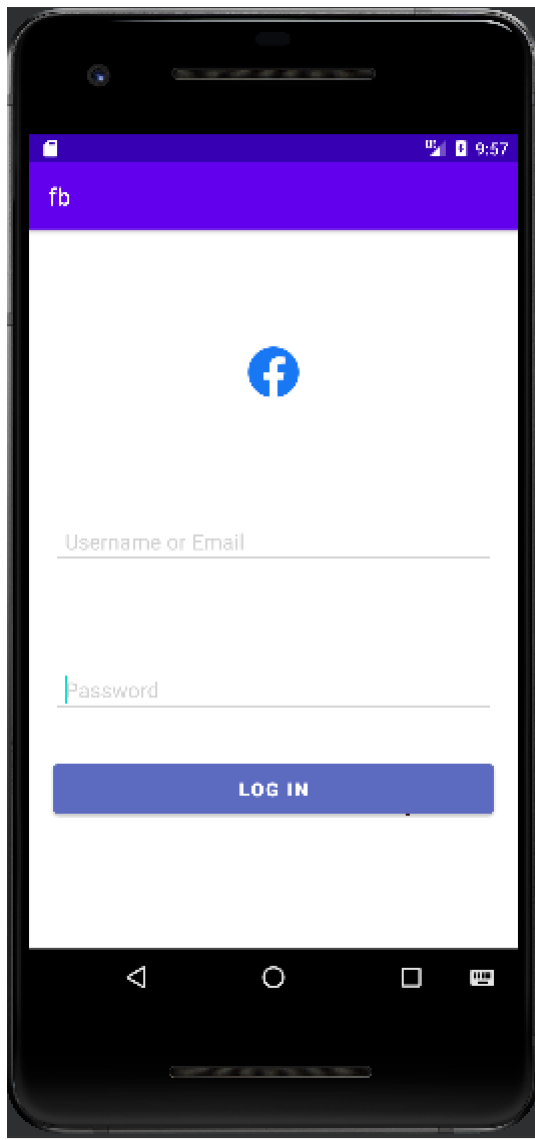
activity_main.xml:

```
<LinearLayout
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
xmlns:android="http://schemas.android.com/apk/res/android">
```

```
<ImageView
android:layout_width="80dp"
android:layout_height="80dp"
android:layout_gravity="center"
android:layout_marginTop="80dp"
android:src="@drawable/fb_logo" />
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginLeft="20dp"
android:layout_marginTop="80dp"
android:layout_marginRight="20dp"
android:backgroundTint="#d3d3d3"
android:hint="Username or Email"
android:inputType="textEmailAddress"
android:maxLines="1"
android:padding="10dp"
android:textColor="#ffffff"
android:textColorHint="#d3d3d3"/>
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginLeft="20dp"
android:layout_marginTop="80dp"
android:layout_marginRight="20dp"
android:backgroundTint="#d3d3d3"
android:hint="Password"
android:inputType="textPassword"
android:maxLines="1"
android:padding="10dp"
android:textColor="#ffffff"
```

```
android:textColorHint="#d3d3d3"/>
<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/btnlogin"
    android:layout_marginLeft="20dp"
    android:layout_marginTop="35dp"
    android:layout_marginRight="20dp"
    android:backgroundTint="#5c6bc0"
    android:padding="10dp"
    android:text="LogIn"
    android:textColor="#ffffff"
    android:textSize="16sp"
    android:textStyle="bold"/>    <RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:orientation="vertical">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/txtSignUp"
            android:gravity="center_horizontal"
            android:text="Sign up for facebook"
            android:textColor="#ffffff"/>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/txtForgotPassword"
            android:layout_gravity="center_horizontal"
            android:layout_marginTop="15dp"
            android:layout_marginBottom="15dp"
            android:text="Forgot Password"
            android:textColor="#ffffff"/>
        </LinearLayout>
    </RelativeLayout>
```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

LABCYCLE:3

EXPERIMENT NO:10

DATE:

AIM: Develop an android application to implement Options Menu

MainActivity.java file

```
package com.example.menu;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.EditText;
import android.widget.PopupMenu;
import android.widget.Toast;
import java.util.zip.Inflater;

public class MainActivity extends AppCompatActivity {

    Menu myMenu;
    EditText selectItem;

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

    //This function is to create option menu
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater=getMenuInflater();
        inflater.inflate(R.menu.main_menu, menu);
        selectItem = (EditText)findViewById(R.id.popupmenu);
        return true;
    }

    //This function is for making the option menu clickable

    @Override
```



```

public boolean onOptionsItemSelected(@NonNull MenuItem item) {
    if (item.getItemId() == R.id.item1)
    {
        Toast.makeText(this, "Home Selected", Toast.LENGTH_SHORT).show();
    }
    if (item.getItemId() == R.id.item2)
    {
        Toast.makeText(this, "About Selected", Toast.LENGTH_SHORT).show();
    }
    if (item.getItemId() == R.id.item3)
    {
        Toast.makeText(this, "Contact Selected", Toast.LENGTH_SHORT).show();
    }

    return true;
}

```

//This is for option menu, this function will trigger once the gadget against this //function is clicked.

```

public void btnPopup(View view) {
    PopupMenu popup=new popupMenu(this,view);
    popup.getMenuInflater().inflate(R.menu.main_menu,popup.getMenu());
    popup.show();
    //This function is to make the popup menu clickable
    popup.setOnMenuItemClickListener(new
    PopupMenu.OnMenuItemClickListener() {
        @Override
        Public boolean onOptionsItemSelected(MenuItem menuItem) {
if (menuItem.getItemId() == R.id.item1)
        {
            selectItem.setText("Home");
            Toast.makeText(MainActivity.this, "Home Selected",
            Toast.LENGTH_SHORT).show();
        }
        if (menuItem.getItemId() == R.id.item2)
        {
            selectItem.setText("About");
            Toast.makeText(MainActivity.this, "About Selected",
            Toast.LENGTH_SHORT).show();
        }
        if (menuItem.getItemId() == R.id.item3)
        {
            selectItem.setText("Contact");

```

```

        Toast.makeText(MainActivity.this, "Contact Selected",
            Toast.LENGTH_SHORT).show();
    }
    return true;
    })); }
}

```

activity_main.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/popupmenu"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="btnPopup"
        android:hint="Select Item"
        android:editable="false"
        android:gravity="center"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Colors.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="colorPrimary">#6200EE</color>
    <color name="colorPrimaryDark">#3700B3</color>
    <color name="colorAccent">#03DAC5</color>
</resources>

```

String.xml

```
<resources>
  <string name="app_name">Menu</string>
</resources>
```

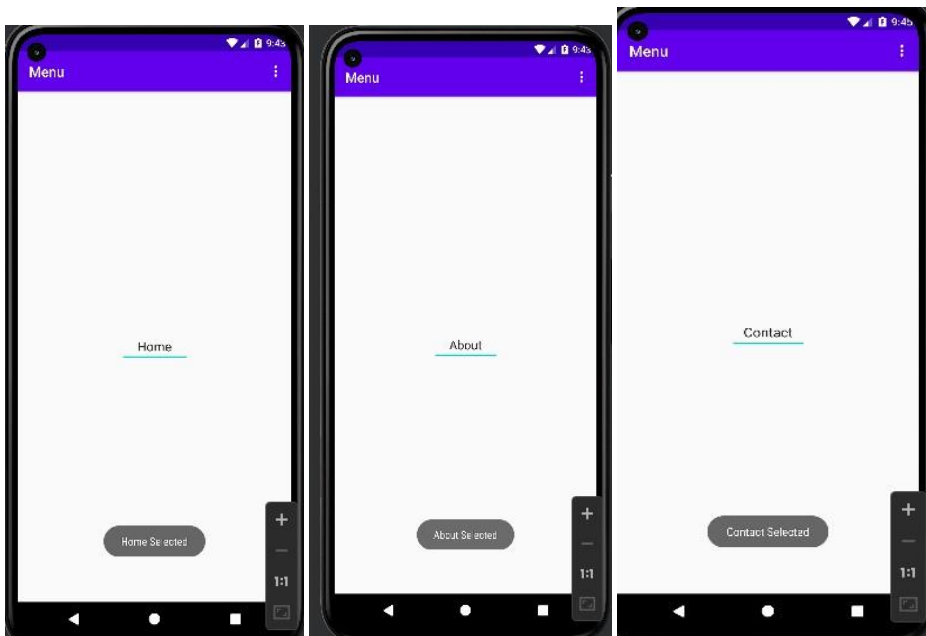
Style.xml

```
<resources>

  <!-- Base application theme. -->

  <style name="AppTheme"
    parent="Theme.AppCompat.
    Light.DarkActionBar">
    <!--Customize your theme
    here. -->
    <item name="colorPrimary">@color/colorPrimary</item>
    <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
    <item name="colorAccent">@color/colorAccent</item>
  </style>
</resources>
```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

LABCYCLE:4

EXPERIMENT NO:11

DATE:

AIM: Android program to demonstrate the working of Alert Box.

MainActivity.java file

```
package com.example.alertbox;
```

```
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button btn=(Button)
        findViewById(R.id.getBtn);
        btn.setOnClickListener(new
        View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                AlertDialog.Builder builder=new AlertDialog.Builder(MainActivity.this);
                builder.setTitle("Login Alert").setMessage("Are you sure, you want to
                continue?").setCancelable(false).setPositiveButton("Yes",new
                DialogInterface.OnClickListener()
                {
                    @Override
                    public void onClick(DialogInterface dialog, int which)
                    {
                        Toast.makeText(MainActivity.this,"Selected Option:
                        YES",Toast.LENGTH_SHORT).show();
                    }
                })
            }
        })
    }
}
```

```

        .setNegativeButton("No",new DialogInterface.OnClickListener()
        {
            @Override
            public void onClick(DialogInterface dialog, int which)
            {
                Toast.makeText(MainActivity.this,"Selected Option:
                No",Toast.LENGTH_SHORT).show();
            }
        });

        AlertDialog
        dialog=builder.create();
        dialog.show();
    }
}
);
}

```

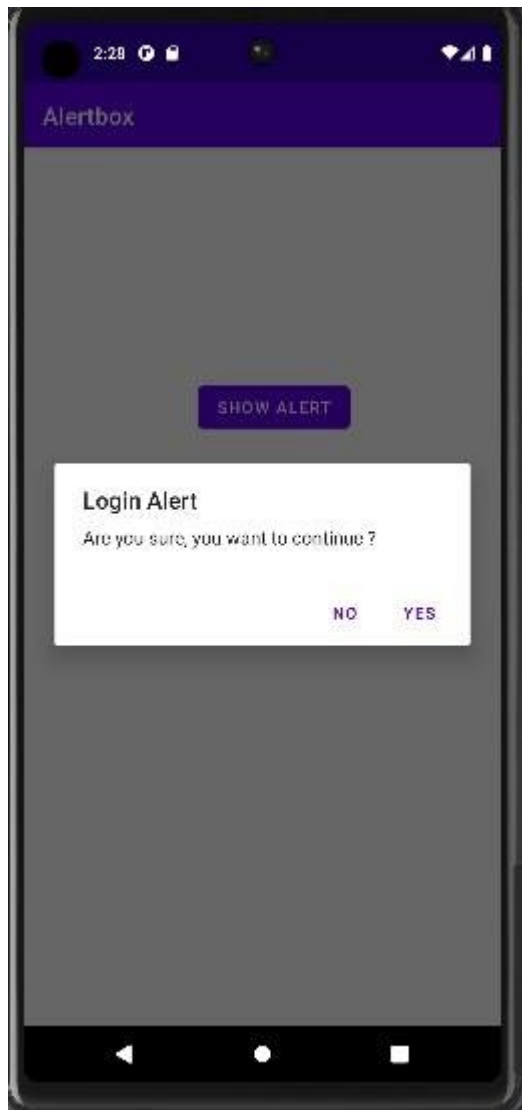
activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:android="http://schemas.android.com/apk/re
    s/android" >
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Alert"
        android:id="@+id/getBtn"
        android:layout_marginLeft="150dp"
        android:layout_marginTop="200dp" />
</RelativeLayout>

```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

EXPERIMENT NO:12

DATE:

AIM: Android program to implement Spinner

MainActivity.java file

```
package com.example.spin;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Spinner; import
android.widget.Toast;

public class MainActivity extends AppCompatActivity
implements AdapterView.OnItemClickListener {

    String[] users = { "Prasanth AV", "Sandra Suresh", "Nithin
Andrews","Akhila Aravind","Gayathri" };

    @Override

    protected void onCreate(Bundle savedInstanceState) {
        Toast.makeText(getApplicationContext(), "Selected User: "+users[position]
,Toast.LENGTH_LONG).show();
    }

    @Override

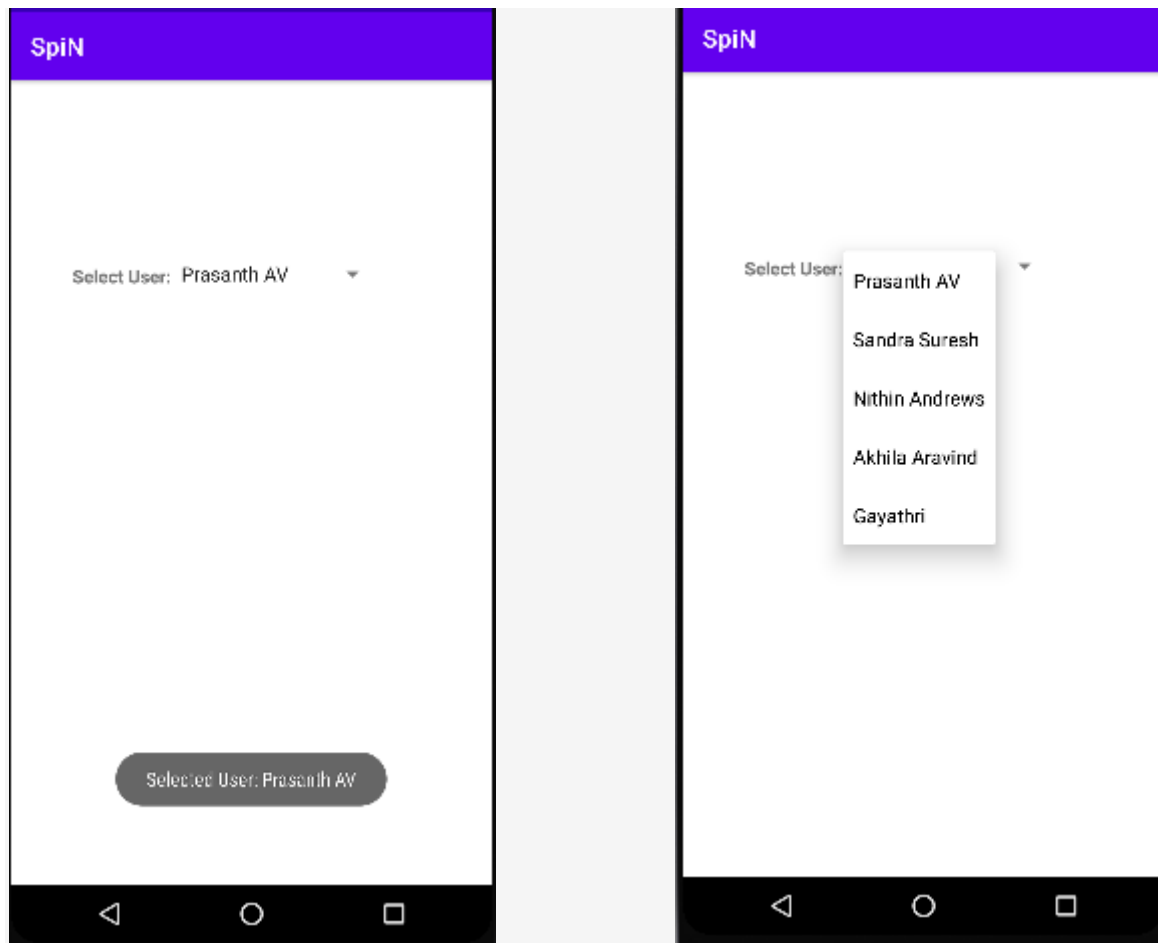
    public void onNothingSelected(AdapterView<?> arg0) {

        // TODO – Custom Code
    }
```

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">
    <TextView
        android:id="@+id/txtVw"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="50dp"
        android:layout_marginTop="150dp"
        android:text="Select User:"
        android:textStyle="bold"
        android:textSize="15dp" />
    <Spinner
        android:id="@+id/spinner1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBottom="@+id/txtVw"
        android:layout_toRightOf="@+id/txtVw" />
```


OUTPUT:



RESULT: The program was implemented and result obtained successfully

EXPERIMENT NO:13

DATE:

AIM: Android program to apply themes via code and manifest file

Themes.xml

```
<resources xmlns:tools="http://schemas.android.com/tools">
    <!-- Base application theme. -->
    <style name="Theme.Theme"
        parent="Theme.MaterialComponents.DayNight.DarkActionBar">
        <!-- Primary brand color. -->
        <item name="colorPrimary">@color/design_default_color_primary</item>
        <item name="colorPrimaryVariant">@color/design_default_color_primary_dark
        </item>
        <item name="colorOnPrimary">@color/white</item>
    </style>
    <!-- Secondary brand color. -->
    <style name="TextviewStyle" parent="@android:style/Widget.TextView">
    <item name="android:layout_width">wrap_content</item>
    <item name="android:layout_height">wrap_content</item>
    <item name="android:layout_marginLeft">100dp</item>
    <item name="android:layout_marginTop">10dp</item>
    <item name="android:textColor">#86AD33</item>
    <item name="android:textStyle">bold</item>
    <item name="android:textSize">20dp</item>
    </style>
    <style name="ButtonStyle" parent="@android:style/Widget.Button">
    <item name="android:layout_width">200dp</item>
    <item name="android:layout_height">wrap_content</item>
    <item name="android:layout_marginLeft">100dp</item>
    <item name="android:layout_marginTop">10dp</item>
    <item name="android:textColor">#FFFFFF</item>
    <item name="android:background">#F1511B</item>
    <item name="android:textStyle">bold</item>
    <item name="android:textSize">15dp</item>
    </style>
    <string name="wlcmsg">welcome to Tutlane</string>
</resources>
```

activity main.xml

```
<LinearLayout android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res/android" >
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/TextView1"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="200dp"
        android:textColor="#00ADEF"
        android:textSize="15dp"
        android:text="@string/wlcmmsg">
    </TextView>
    <TextView    android:id="@+id/TextView2"
        style="@style/TextviewStyle"
        android:text="Welcome to Tutlane"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btnShow"
        android:text="Click    on    Button"
        style="@style/ButtonStyle"/>
</LinearLayout>
```

OUTPUT:



RESULT: The program was implemented and result obtained successfully

EXPERIMENT NO:14

DATE:

AIM: Create an android application performs CRUD operations in android SQLite

Main_activity.java file

```
package com.androapp.data;
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;
    @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);
        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)
{

    if(view==Insert)
    {
        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 student
        VALUES('"+Rollno.getText()+"','"+Name.getText()+"','"+Marks.getText()+"');");
        showMessage("Success", "Record added");
        clearText(); }
    if(view==Delete)
    {
        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();
    }

    if(view==Update)
    {
        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();
}

if(view==View)
{

    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();
    }
}

    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();
}
}
}

```

File.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/Roll
    no"
    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" />
```

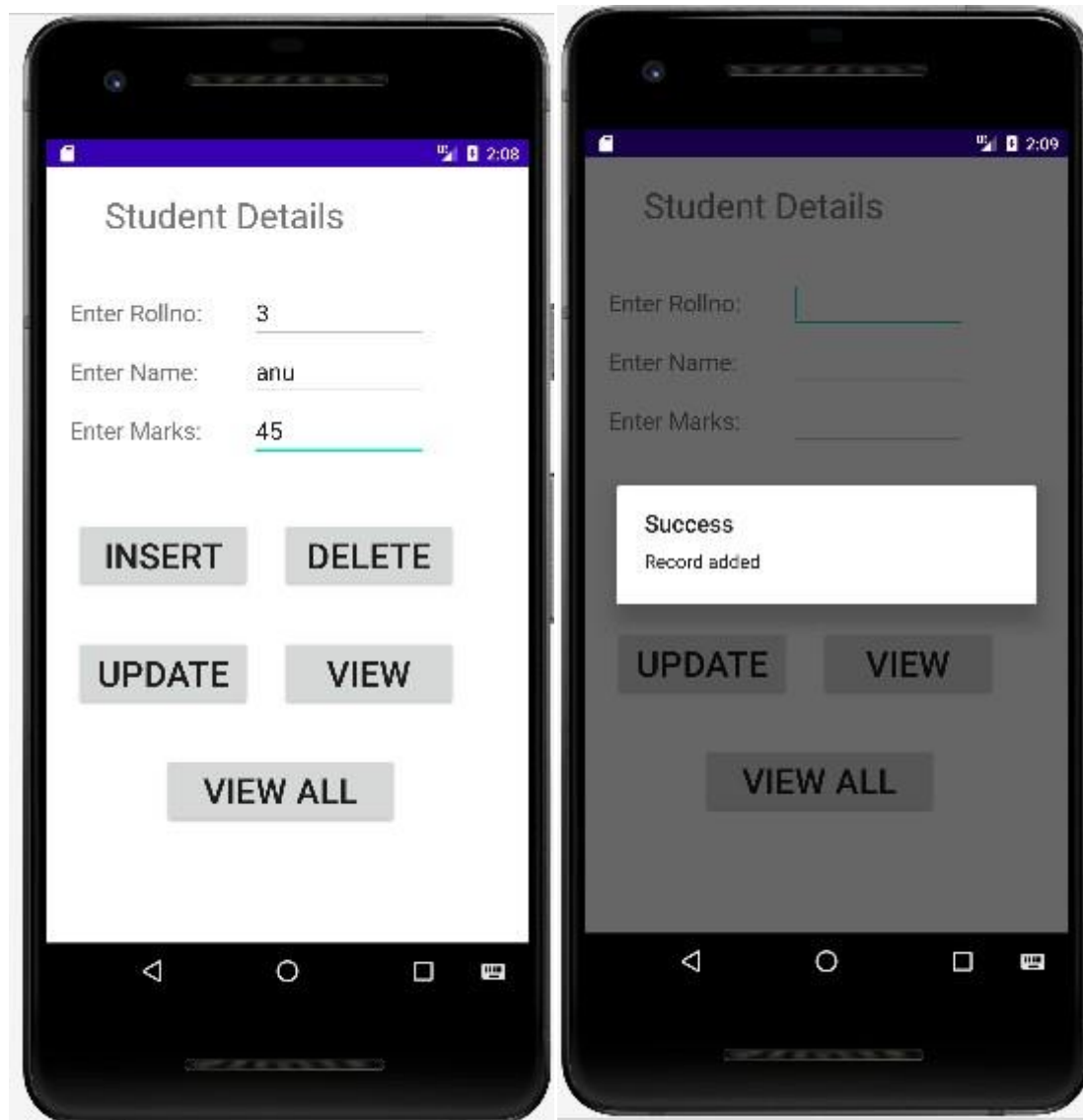
```
<Button
    android:id="@+id/Update"
    android:layout_width="150dp"
    android:layout_height="wrap_content"
    android:layout_x="25dp"
    android:layout_y="400dp"
    android:text="Update"
    android:textSize="30dp" />
```

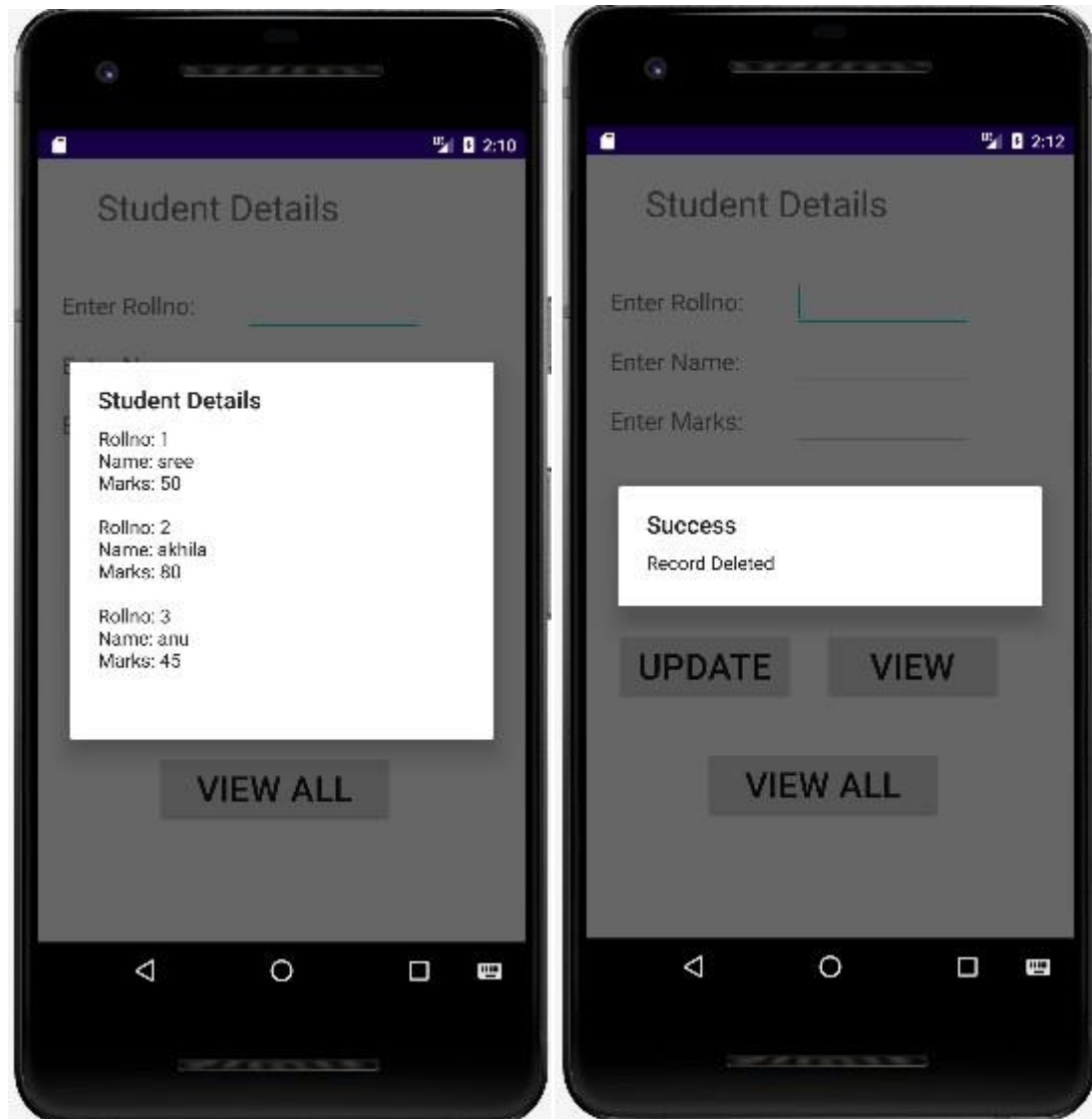
```
<Button
    android:id="@+id/View"
    android:layout_width="150dp"
    android:layout_height="wrap_content"
    android:layout_x="200dp"
    android:layout_y="400dp"
    android:text="View"
    android:textSize="30dp" />
```

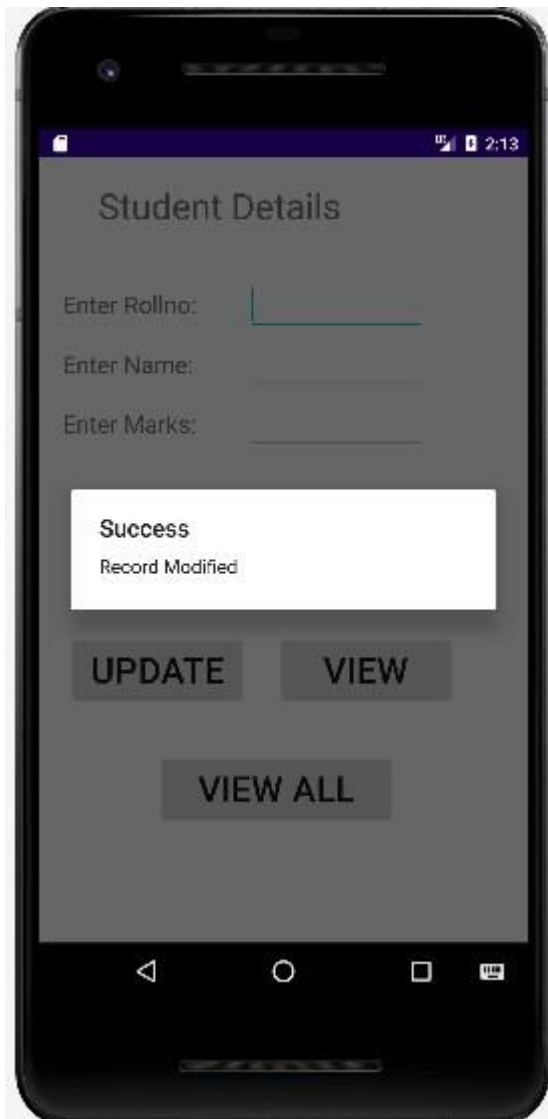
```
<Button
    android:id="@+id/ViewAll"
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:layout_x="100dp"
    android:layout_y="500dp"
    android:text="ViewAll"
    android:textSize="30dp" />
```

```
</AbsoluteLayout>
```

OUTPUT:







RESULT: The program was implemented and result obtained successfully

LABCYCLE:5

EXPERIMENT NO:15

DATE:

AIM: Develop an application as a Micro project which uses SQLite database as an assignment

Main_Activity.java file

```
Package com.pandanadroversapplications.student;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
import java.util.Objects;
public class MainActivity extends AppCompatActivity {
    @Override
    Protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Objects.requireNonNull(getSupportActionBar()).hide();
        new Handler().postDelayed(() -> {
            startActivity(new
            Intent(MainActivity.this,Entry.class));finish();
            }, 2000);
        }
    }
```

Entry.java

```
package com.pandanadroversapplications.student;

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 Entry 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_entry);

        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 student
VALUES('"+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();
}
}

```

Entry.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"
    android:background="@drawable/img2">
    <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" />
```

```
<Edit Text
```

```
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>
```

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"
```

```
    android:background="@drawable/img1"
```

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

```
    <TextView
```

```
        android:id="@+id/textView"
```

```
        android:layout_width="346dp"
```

```
        android:layout_height="wrap_content"
```

```
        android:layout_alignParentStart="true"
```

```
        android:layout_alignParentEnd="true"
```

```
        android:layout_alignParentBottom="true"
```

```
        android:layout_marginStart="53dp"
```

```
        android:layout_marginEnd="11dp"
```

```
        android:layout_marginBottom="445dp"
```

```
        android:text="Student    Details"
```

```
        android:textColor="#4A4444"
```

```
        android:textSize="40sp"
```

```
        android:textStyle="bold" />
```

```
</RelativeLayout>
```


Ic_launcher_background.xml

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

<vector
    xmlns:android="http://schemas.android.com/apk/res/a
ndroid" android:width="108dp"
    android:height="108dp"
    android:viewportWidth=
"108"
    android:viewportHeight=
"108">
    <path
        android:fillColor="#3DDC84"
        android:pathData="M0,0h108v108h
-108z" />
    <path
        android:fillColor="#00000000"
        android:pathData="M9,0L9,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M19,0L19,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />

    <path
        android:fillColor="#00000000"
        android:pathData="M29,0L29,108"
        android:strokeWidth="0.8"
```

```
    android:strokeColor="#33FFFFFF" />
```

```
<path
```

```
    android:fillColor="#00000000"
```

```
    android:pathData="M39,0L39,108"
```

```
    android:strokeWidth="0.8"
```

```
    android:strokeColor="#33FFFFFF"
```

```
/>
```

```
<path
```

```
    android:fillColor="#00000000"
```

```
    android:pathData="M49,0L49,108"
```

```
    android:strokeWidth="0.8"
```

```
    android:strokeColor="#33FFFFFF"
```

```
/>
```

```
<path
```

```
    android:fillColor="#00000000"
```

```
    android:pathData="M59,0L59,108"
```

```
    android:strokeWidth="0.8"
```

```
    android:strokeColor="#33FFFFFF" />
```

```
<path
```

```
    android:fillColor="#00000000"
```

```
    android:pathData="M69,0L69,108"
```

```
    android:strokeWidth="0.8"
```

```
    android:strokeColor="#33FFFFFF" />
```

```
<path
```

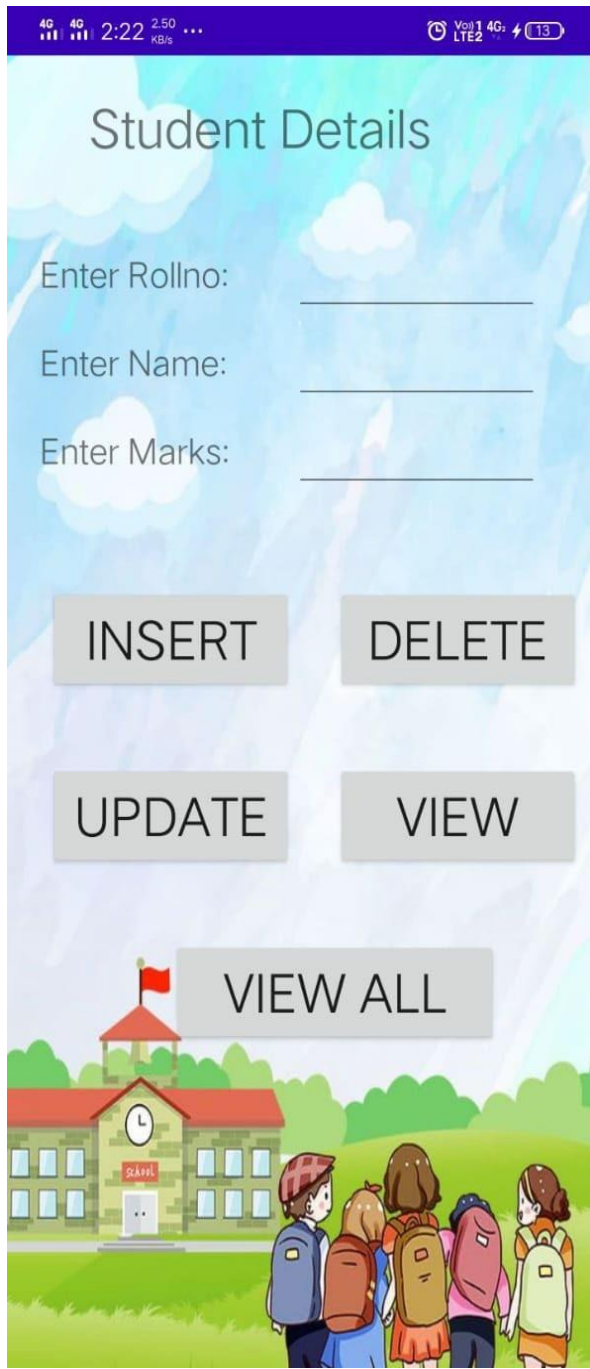
```
    android:fillColor="#00000000"
```

```
    android:pathData="M79,0L79,108"
```

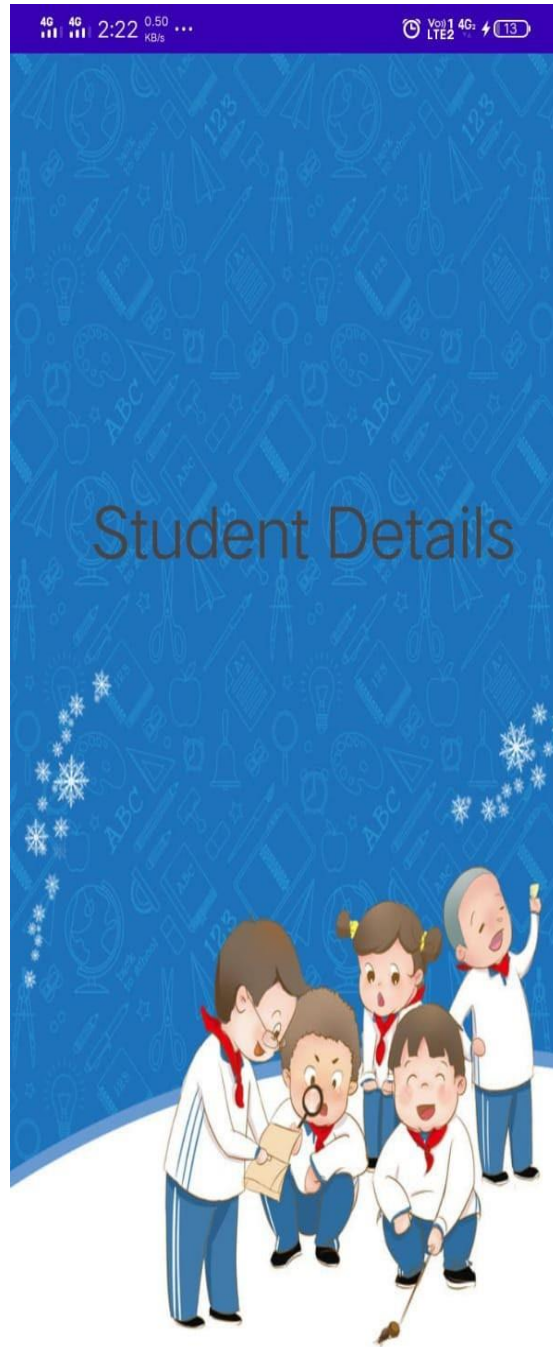
```
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M89,0L89,108"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M39,19L39,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M49,19L49,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M59,19L59,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M69,19L69,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
```

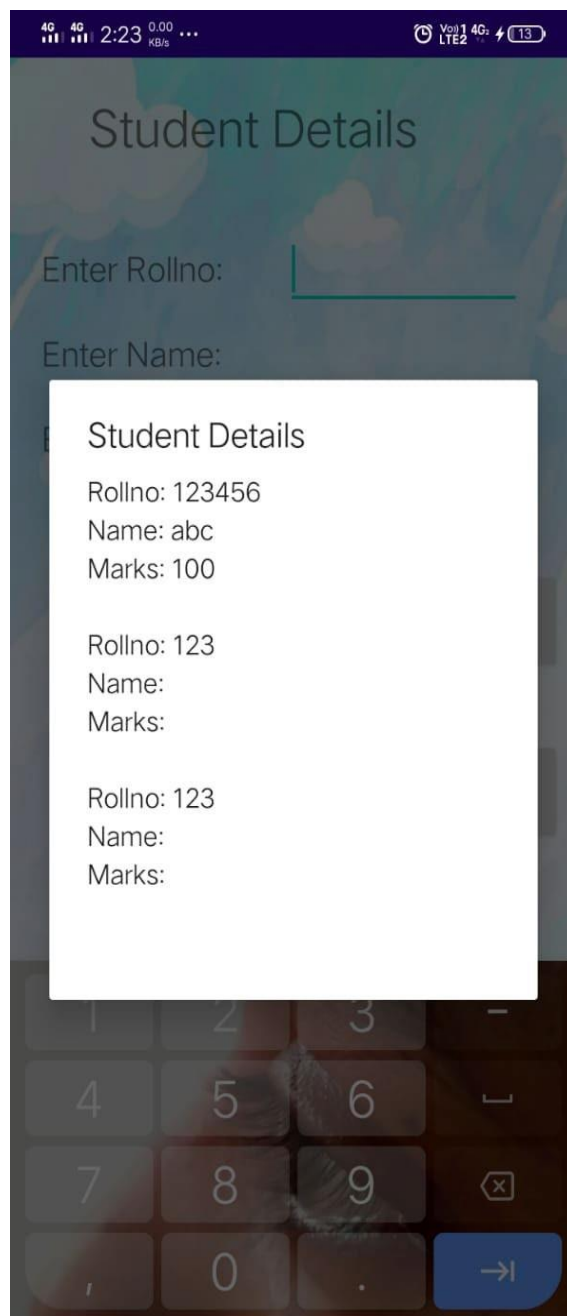
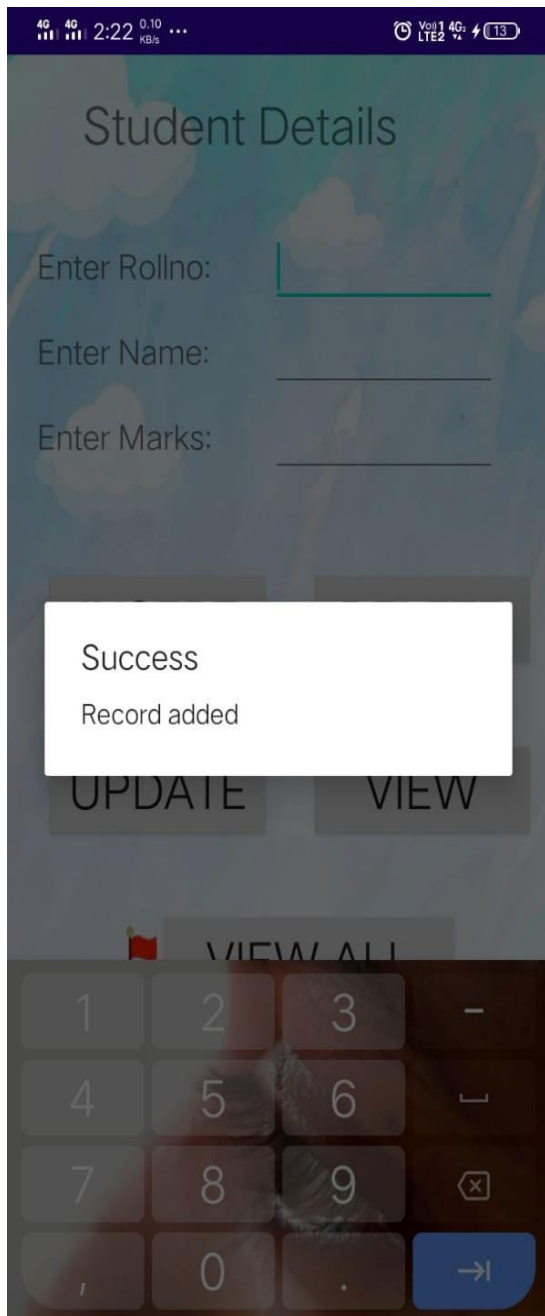
```
<path
  android:fillColor="#00000000"
  android:pathData="M79,19L79,89"
  android:strokeWidth="0.8"
  android:strokeColor="#33FFFFFF" />
</vector>
```

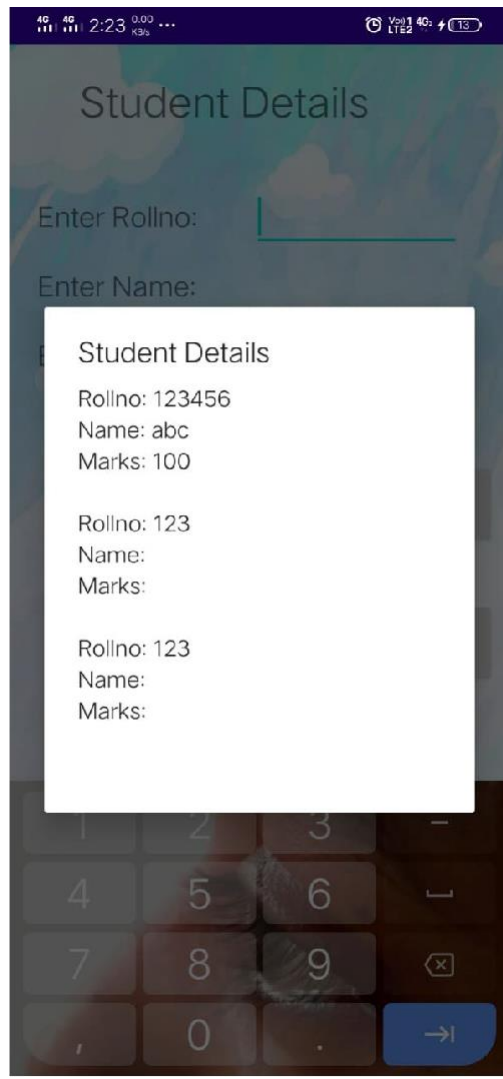
OUTPUT:



The screenshot shows a mobile application interface with a light blue sky and clouds background. At the top, the status bar displays '4G', '2:22', and '2.50 KB/s'. The title 'Student Details' is centered at the top. Below the title, there are three input fields labeled 'Enter Rollno:', 'Enter Name:', and 'Enter Marks:'. Each field has a corresponding underline. Below the input fields, there are four buttons: 'INSERT', 'DELETE', 'UPDATE', and 'VIEW'. At the bottom, there is a 'VIEW ALL' button. The background features a cartoon illustration of a school building with a red roof and a clock tower, and a group of five children with backpacks walking towards the school.







RESULT: The program was implemented and result obtained successfully

