

PRACTICAL:10

AIM: Create an application with the help of the database.

Source Code:

Program: activity_main.xml

activity_main.xml

```
<?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">

    <Button
        android:id="@+id/button5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Insert"
        android:layout_margin="25dp"
        android:layout_below="@id/textView3"
        android:layout_centerHorizontal="true" />

    <Button
        android:id="@+id/button6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="25dp"
        android:layout_below="@id/button5"
        android:layout_centerHorizontal="true"
        android:text="Delete"/>

    <Button
        android:id="@+id/button7"
        android:layout_width="wrap_content"
        android:layout_margin="25dp"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_below="@id/button6"
        android:text="View All" />

    <TextView
```

```

        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_height="wrap_content"
        android:text="Database Data"
        android:layout_margin="25dp"
        android:textSize="30sp"
    />

```

```
</RelativeLayout>
```

activity_delete.xml

```

<?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=".Delete">

```

```

    <TextView
        android:layout_margin="25dp"
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name"
        android:textSize="20sp" />

```

```

    <EditText
        android:id="@+id/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:layout_margin="25dp"
        android:layout_toRightOf="@id/textView"/>

```

```

    <TextView
        android:layout_margin="25dp"
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Roll No"
        android:textSize="20sp"
        android:layout_below="@id/textView"/>

```

```
<EditText
```

```

        android:id="@+id/editText2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Roll No"
        android:layout_toRightOf="@id/textView2"
        android:layout_below="@id/editText"/>

```

```

<Button
    android:layout_margin="25dp"
    android:id="@+id/button"
    android:layout_centerInParent="true"
    android:layout_below="@id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Delete"/>

```

```

</RelativeLayout>

```

activity_insert.xml

```

<?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=".Insert"
    >

    <TextView
        android:layout_margin="25dp"
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name"
        android:textSize="20sp" />

    <EditText
        android:layout_margin="25dp"
        android:id="@+id/editText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:layout_toRightOf="@id/textView"

```

```

        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/editText2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

```

```

<TextView
    android:layout_margin="25dp"
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Roll No"
    android:layout_below="@id/editText"
    android:textSize="20sp" />

```

```

<EditText
    android:layout_margin="25dp"
    android:id="@+id/editText2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Roll No"
    android:layout_toRightOf="@id/textView2"
    android:layout_below="@id/editText"/>

```

```

<Button
    android:layout_margin="25dp"
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Insert"
    android:layout_below="@id/editText2"
    android:layout_centerInParent="true"/>

```

```

</RelativeLayout>

```

activity_view.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=".View1"
>

```

```
<TextView
    android:id="@+id/textView4"
    android:layout_width="259dp"
    android:layout_height="498dp"
    android:layout_marginStart="48dp"
    android:layout_marginLeft="48dp"
    android:layout_marginTop="35dp"
    android:layout_marginEnd="56dp"
    android:layout_marginRight="56dp"
    android:layout_marginBottom="48dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    android:textSize="10sp"
/>
</androidx.constraintlayout.widget.ConstraintLayout>
```

Program: MainActivity.java

```
package com.example.pr10_17it104_wcmc;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.content.Intent;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.database.Cursor;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    Button insert,del,view;

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

        view = findViewById(R.id.button7);
        insert = findViewById(R.id.button5);
```

```
del = findViewById(R.id.button6);
SQLiteDatabase db = openOrCreateDatabase("student",MODE_PRIVATE,null);

insert.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        Intent i1 = new Intent(MainActivity.this,Insert.class);
        startActivity(i1);

    }
});

del.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i3 = new Intent(MainActivity.this, Delete.class);
        startActivity(i3);

    }
});

view.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i2 = new Intent(MainActivity.this, View1.class);
        startActivity(i2);

    }
});
}
```

View1.java

```
package com.example.pr10_17it104_wcmc;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;

import android.os.Bundle;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
```

```

public class View1 extends AppCompatActivity {

    TextView t1;
    SQLiteDatabase db;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view);

        t1=findViewById(R.id.textView4);

        db=openOrCreateDatabase("student",MODE_PRIVATE,null);

        Cursor c=db.rawQuery("SELECT * FROM student",null);
        if (c.getCount()==0){
            Toast.makeText(getApplicationContext(),"No Data
Found",Toast.LENGTH_SHORT).show();
        }
        else{

            StringBuffer result=new StringBuffer();
            while (c.moveToNext()){
                result.append("Name:"+c.getString(0)+"\n");
                result.append("Roll No:"+c.getString(1)+"\n\n");
            }
            t1.setText(result.toString());
        }
    }
}

```

Insert.java

```

package com.example.pr10_17it104_wcmc;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.database.SQLException;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
import android.widget.Button;

public class Insert extends AppCompatActivity {

    EditText name,rollno;

```

```

Button insert;
SQLiteDatabase db;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_insert);

    name = findViewById(R.id.editText);
    rollno = findViewById(R.id.editText2);
    insert = findViewById(R.id.button);

    insert.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            String tempname = name.getText().toString();
            String temproll = rollno.getText().toString();

            if (tempname.isEmpty() || temproll.isEmpty()){

                Toast.makeText(getApplicationContext(),"Please Enter
Details...",Toast.LENGTH_LONG).show();

            }
            else {

                Toast.makeText(getApplicationContext(),"INSERT
SUCCESSFULL",Toast.LENGTH_LONG).show();

                db = openOrCreateDatabase("student", MODE_PRIVATE, null);
                db.execSQL("CREATE TABLE IF NOT EXISTS student(Name VARCHAR, RollNo
VARCHAR);");

                try {
                    db.execSQL("INSERT INTO student VALUES('"+tempname+"','"+temproll+"');");
                }
                catch (SQLException e){
                    Toast.makeText(getApplicationContext()," "+e,Toast.LENGTH_LONG).show();
                }
            }
        }
    });
}
}

```

Delete.java


```

package com.example.pr10_17it104_wcmc;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
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;
import android.widget.Toast;

public class Delete extends AppCompatActivity {

    EditText name,rollno;
    Button delete;
    SQLiteDatabase db;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_delete);

        name=findViewById(R.id.editText);
        rollno=findViewById(R.id.editText2);
        delete=findViewById(R.id.button);

        db=openOrCreateDatabase("student", Context.MODE_PRIVATE,null);

        delete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                if (name.getText().toString().trim().length()==0 ||
rollno.getText().toString().trim().length()==0){
                    Toast.makeText(getApplicationContext(),"Please Enter Details",
Toast.LENGTH_SHORT).show();
                }

                Cursor c=db.rawQuery("SELECT * FROM student WHERE
name='"+name.getText().toString()+"'", null);
                if(c.moveToFirst())
                {
                    db.execSQL("DELETE FROM student WHERE
name='"+name.getText().toString()+"'");
                    Toast.makeText(getApplicationContext(),"Deleted
Successfully",Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}

```

```
        else
        {
            Toast.makeText(getApplicationContext(),"Operation Not
Successful",Toast.LENGTH_SHORT).show();
        }
    }
});
}
```

Output:

The image displays two screenshots of a mobile application interface. The left screenshot shows a screen titled "Database Data" with three buttons: "INSERT", "DELETE", and "VIEW ALL". The right screenshot shows a form with two input fields: "Name" (containing "Riddhi") and "Roll No" (containing "15IT124"), and an "INSERT" button. Both screenshots show a standard Android navigation bar at the bottom.

Name Anushree

Roll No 17IT104

INSERT

Name:Anushree
Roll No:17IT104
Name:Riddhi
Roll No:15IT124
Name:Riddhi
Roll No:15IT124

Name Riddhi

Roll No 15IT124

DELETE

Name:Anushree
Roll No:17IT104

