

### 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:"
```

```
<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>
```

### **ActivityMain.java**

```
package com.example.exno5;
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 student VALUES('"+Rollno.getText()+"','"+Name.getText()+"
            '"+Marks.getText()+"');");
        showMessage("Success", "Record added");
        clearText();
    }
    // Deleting a record from the Student table
    if(view==Delete)

```

```

        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);

```

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        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();
}
}

```

**Output:**

