

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android">
<application android:allowBackup="true"
android:icon="@android:drawable/btn_star_big_on"
android:label="@string/app_name"
android:roundIcon="?android:attr/fingerprintAuthDrawable"
android:supportRtl="true"
android:theme="@style/AppTheme">
<activity
android:name=".MainActivity"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter> </activity>
</application> </manifest>
```

MainActivity.java

```
package com.example.exe_04;
import androidx.appcompat.app.AppCompatActivity;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText editTextName, editTextRollNo, editTextMarks;
    Button buttonAdd, buttonUpdate, buttonDelete, buttonView;
    TextView textViewResults;
    DBHelper dbHelper;
    @Override protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main); dbHelper = new DBHelper(this);
        editTextName = findViewById(R.id.editTextName);
        editTextRollNo = findViewById(R.id.editTextRollNo);
        editTextMarks = findViewById(R.id.editTextMarks);
        buttonAdd = findViewById(R.id.buttonAdd);
        buttonUpdate = findViewById(R.id.buttonUpdate);
        buttonDelete = findViewById(R.id.buttonDelete);
        buttonView = findViewById(R.id.buttonView);
        textViewResults = findViewById(R.id.textViewResults);
        buttonAdd.setOnClickListener(new View.OnClickListener() {
            @Override public void onClick(View v) {
                int rollNo = Integer.parseInt(editTextRollNo.getText().toString()); // Get roll number from input
                String name = editTextName.getText().toString();
                int marks = Integer.parseInt(editTextMarks.getText().toString());
                dbHelper.insertStudent(rollNo, name, marks);
                Toast.makeText(MainActivity.this, "Student Added", Toast.LENGTH_SHORT).show(); } });
        buttonUpdate.setOnClickListener(new View.OnClickListener() {
            @Override public void onClick(View v) {
                int rollNo = Integer.parseInt(editTextRollNo.getText().toString());
                String name = editTextName.getText().toString();
                int marks = Integer.parseInt(editTextMarks.getText().toString());
                dbHelper.updateStudent(rollNo, name, marks);
                Toast.makeText(MainActivity.this, "Student Updated", Toast.LENGTH_SHORT).show(); } });
        buttonDelete.setOnClickListener(new View.OnClickListener() {
            @Override public void onClick(View v) {
                int rollNo = Integer.parseInt(editTextRollNo.getText().toString()); dbHelper.deleteStudent(rollNo);
                Toast.makeText(MainActivity.this, "Student Deleted", Toast.LENGTH_SHORT).show(); } });
```

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buttonView.setOnClickListener(new View.OnClickListener() {
    @Override public void onClick(View v) {
        Cursor cursor = dbHelper.getAllStudents();
        if (cursor.getCount() == 0) {
            textViewResults.setText("No data found"); return; }
        StringBuilder stringBuilder = new StringBuilder();
        while (cursor.moveToNext()) {
            stringBuilder.append("Roll No: ").append(cursor.getInt(0)).append("\n");
            stringBuilder.append("Name: ").append(cursor.getString(1)).append("\n");
            stringBuilder.append("Marks: ").append(cursor.getInt(2)).append("\n\n"); }
        textViewResults.setText(stringBuilder.toString()); } } } }

```

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/editTextName" android:layout_width="0dp"
        android:layout_height="wrap_content" android:hint="Name"
        style="@style/Widget.MaterialComponents.TextInputEditText.OutlinedBox"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" android:layout_margin="16dp" />
    <EditText android:id="@+id/editTextRollNo"
        android:layout_width="0dp"
        android:layout_height="wrap_content" android:hint="Roll No"
        style="@style/Widget.MaterialComponents.TextInputEditText.OutlinedBox"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/editTextName"
        android:layout_margin="16dp" />
    <EditText android:id="@+id/editTextMarks"
        android:layout_width="0dp"
        android:layout_height="wrap_content" android:hint="Marks"
        style="@style/Widget.MaterialComponents.TextInputEditText.OutlinedBox"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/editTextRollNo"
        android:layout_margin="16dp" />
    <Button android:id="@+id/buttonAdd" android:layout_width="0dp"
        android:layout_height="wrap_content" android:text="Add Student"
        style="@style/Widget.MaterialComponents.Button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/editTextMarks"
        android:layout_margin="16dp" />
    <Button android:id="@+id/buttonUpdate" android:layout_width="0dp"
        android:layout_height="wrap_content" android:text="Update Student"
        style="@style/Widget.MaterialComponents.Button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/buttonAdd"
        android:layout_margin="16dp" />
    <Button android:id="@+id/buttonDelete"
        android:layout_width="0dp" android:layout_height="wrap_content"
        android:text="Delete Student"
        style="@style/Widget.MaterialComponents.Button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/buttonUpdate"
        android:layout_margin="16dp" />

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<Button android:id="@+id/buttonView"
android:layout_width="0dp" android:layout_height="wrap_content"
android:text="View All" style="@style/Widget.MaterialComponents.Button"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@id/buttonDelete"
android:layout_margin="16dp" />
<TextView android:id="@+id/textViewResults"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_margin="16dp" android:text="Results will appear here"
android:textAppearance="?attr/textAppearanceListItem"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@id/buttonView" />
<TextView android:id="@+id/footer_text"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_margin="28dp"
android:text="ARUNA S"
android:textSize="26sp"
android:textColor="@android:color/black"
android:fontFamily="bold"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintBottom_toBottomOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

