

Androidmanifest.xml

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.akashdata">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.AkashData"> <!-- Ensure this matches the style name
-->

        <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>
```

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"
    android:padding="16dp">

    <EditText
        android:id="@+id/editTextName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name" />

    <EditText
        android:id="@+id/editTextRollNo"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Roll No"
        android:layout_below="@id/editTextName"
        android:layout_marginTop="16dp" />

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

```
    android:hint="Marks"
    android:layout_below="@id/editTextRollNo"
    android:layout_marginTop="16dp" />
```

```
<EditText
    android:id="@+id/editTextCollege"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="College"
    android:layout_below="@id/editTextMarks"
    android:layout_marginTop="16dp" />
```

```
<EditText
    android:id="@+id/editTextGender"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Gender"
    android:layout_below="@id/editTextCollege"
    android:layout_marginTop="16dp" />
```

```
<Button
    android:id="@+id/buttonAdd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Add Student"
    android:layout_below="@id/editTextGender"
    android:layout_marginTop="16dp"/>
```

```
<Button
    android:id="@+id/buttonUpdate"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Update Student"
    android:layout_below="@id/buttonAdd"
    android:layout_marginTop="16dp"/>
```

```
<Button
    android:id="@+id/buttonDelete"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Delete Student"
    android:layout_below="@id/buttonUpdate"
    android:layout_marginTop="16dp"/>
```

```
<Button
    android:id="@+id/buttonView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="View Students"
    android:layout_below="@id/buttonDelete"
    android:layout_marginTop="16dp"/>
```

```
<TextView
    android:id="@+id/textViewFooter"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Done by Akash"
        android:layout_alignParentBottom="true"
        android:layout_marginTop="16dp"
        android:layout_centerHorizontal="true"/>

```

```
</RelativeLayout>
```

Dialog_Results.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="wrap_content"
    android:padding="16dp">

    <TextView
        android:id="@+id/textViewResults"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Results will appear here"
        android:textColor="@android:color/black"
        android:textSize="16sp" />

</RelativeLayout>

```

DatabaseHelper.Java

```

package com.example.akashdata;

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

public class DatabaseHelper extends SQLiteOpenHelper {

    private static final String DATABASE_NAME = "student.db";
    private static final int DATABASE_VERSION = 1;
    private static final String TABLE_NAME = "Student";
    private static final String COLUMN_NAME = "Name";
    private static final String COLUMN_ROLL_NO = "RollNo";
    private static final String COLUMN_MARKS = "Marks";
    private static final String COLUMN_COLLEGE = "College";
    private static final String COLUMN_GENDER = "Gender";

    public DatabaseHelper(Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        String CREATE_TABLE = "CREATE TABLE " + TABLE_NAME + " (" +
            COLUMN_NAME + " TEXT, " +
            COLUMN_ROLL_NO + " INTEGER PRIMARY KEY, " +
            COLUMN_MARKS + " INTEGER, " +
            COLUMN_COLLEGE + " TEXT, " +
            COLUMN_GENDER + " TEXT)";
    }

```

```

        db.execSQL(CREATE_TABLE);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
        onCreate(db);
    }

    // Insert student details
    public boolean insertStudent(String name, int rollNo, int marks, String college, String gender) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put(COLUMN_NAME, name);
        values.put(COLUMN_ROLL_NO, rollNo);
        values.put(COLUMN_MARKS, marks);
        values.put(COLUMN_COLLEGE, college);
        values.put(COLUMN_GENDER, gender);

        long result = db.insert(TABLE_NAME, null, values);
        return result != -1;
    }

    // Update student record
    public boolean updateStudent(String name, int rollNo, int marks, String college, String gender) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put(COLUMN_NAME, name);
        values.put(COLUMN_MARKS, marks);
        values.put(COLUMN_COLLEGE, college);
        values.put(COLUMN_GENDER, gender);

        int result = db.update(TABLE_NAME, values, COLUMN_ROLL_NO + " = ?", new
String[]{String.valueOf(rollNo)});
        return result > 0;
    }

    // Delete a specified record
    public boolean deleteStudent(int rollNo) {
        SQLiteDatabase db = this.getWritableDatabase();
        int result = db.delete(TABLE_NAME, COLUMN_ROLL_NO + " = ?", new
String[]{String.valueOf(rollNo)});
        return result > 0;
    }

    // Retrieve all student details
    public Cursor getAllStudents() {
        SQLiteDatabase db = this.getReadableDatabase();
        return db.query(TABLE_NAME, null, null, null, null, null, null);
    }
}

```

Mainactivity.Java

```

package com.example.akashdata;

import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

```

```

public class MainActivity extends AppCompatActivity {

    private EditText editTextName, editTextRollNo, editTextMarks, editTextCollege, editTextGender;
    private Button buttonAdd, buttonUpdate, buttonDelete, buttonView;
    private DatabaseHelper dbHelper;

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

        editTextName = findViewById(R.id.editTextName);
        editTextRollNo = findViewById(R.id.editTextRollNo);
        editTextMarks = findViewById(R.id.editTextMarks);
        editTextCollege = findViewById(R.id.editTextCollege);
        editTextGender = findViewById(R.id.editTextGender);

        buttonAdd = findViewById(R.id.buttonAdd);
        buttonUpdate = findViewById(R.id.buttonUpdate);
        buttonDelete = findViewById(R.id.buttonDelete);
        buttonView = findViewById(R.id.buttonView);

        dbHelper = new DatabaseHelper(this);

        buttonAdd.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                addStudent();
            }
        });

        buttonUpdate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                updateStudent();
            }
        });

        buttonDelete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                deleteStudent();
            }
        });

        buttonView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                viewStudents();
            }
        });
    }

    private void addStudent() {
        String name = editTextName.getText().toString();
        int rollNo = Integer.parseInt(editTextRollNo.getText().toString());
        int marks = Integer.parseInt(editTextMarks.getText().toString());
        String college = editTextCollege.getText().toString();
        String gender = editTextGender.getText().toString();

        boolean result = dbHelper.insertStudent(name, rollNo, marks, college, gender);
        if (result) {
            Toast.makeText(this, "Student added successfully", Toast.LENGTH_SHORT).show();
        } else {

```

```

        Toast.makeText(this, "Failed to add student", Toast.LENGTH_SHORT).show();
    }
}

private void updateStudent() {
    String name = editTextName.getText().toString();
    int rollNo = Integer.parseInt(editTextRollNo.getText().toString());
    int marks = Integer.parseInt(editTextMarks.getText().toString());
    String college = editTextCollege.getText().toString();
    String gender = editTextGender.getText().toString();

    boolean result = dbHelper.updateStudent(name, rollNo, marks, college, gender);
    if (result) {
        Toast.makeText(this, "Student updated successfully", Toast.LENGTH_SHORT).show();
    } else {
        Toast.makeText(this, "Failed to update student", Toast.LENGTH_SHORT).show();
    }
}

private void deleteStudent() {
    int rollNo = Integer.parseInt(editTextRollNo.getText().toString());
    boolean result = dbHelper.deleteStudent(rollNo);
    if (result) {
        Toast.makeText(this, "Student deleted successfully", Toast.LENGTH_SHORT).show();
    } else {
        Toast.makeText(this, "Failed to delete student", Toast.LENGTH_SHORT).show();
    }
}

private void viewStudents() {
    Cursor cursor = dbHelper.getAllStudents();
    if (cursor.getCount() == 0) {
        Toast.makeText(this, "No student records found", Toast.LENGTH_SHORT).show();
        return;
    }

    StringBuilder buffer = new StringBuilder();
    while (cursor.moveToNext()) {
        String name = cursor.getString(cursor.getColumnIndex("Name"));
        int rollNo = cursor.getInt(cursor.getColumnIndex("RollNo"));
        int marks = cursor.getInt(cursor.getColumnIndex("Marks"));
        String college = cursor.getString(cursor.getColumnIndex("College"));
        String gender = cursor.getString(cursor.getColumnIndex("Gender"));
        buffer.append("Name: ").append(name).append("\n");
        buffer.append("Roll No: ").append(rollNo).append("\n");
        buffer.append("Marks: ").append(marks).append("\n");
        buffer.append("College: ").append(college).append("\n");
        buffer.append("Gender: ").append(gender).append("\n\n");
    }

    // Show results in a dialog
    ResultsDialogFragment dialog = new ResultsDialogFragment(buffer.toString());
    dialog.show(getSupportFragmentManager(), "ResultsDialog");
}
}

```

ResultsDialogFragment.Java

```
package com.example.akashdata;

import android.app.AlertDialog;
import android.app.Dialog;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.fragment.app.DialogFragment;

public class ResultsDialogFragment extends DialogFragment {

    private String studentDetails;

    public ResultsDialogFragment(String studentDetails) {
        this.studentDetails = studentDetails;
    }

    @Override
    public Dialog onCreateDialog(Bundle savedInstanceState) {
        LayoutInflater inflater = requireActivity().getLayoutInflater();
        View view = inflater.inflate(R.layout.dialog_view_students, null);

        TextView textViewStudents = view.findViewById(R.id.textViewStudents);
        Button buttonClose = view.findViewById(R.id.buttonClose);

        textViewStudents.setText(studentDetails);

        AlertDialog.Builder builder = new AlertDialog.Builder(getActivity());
        builder.setView(view)
            .setPositiveButton("Close", new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int which) {
                    dialog.dismiss();
                }
            });

        return builder.create();
    }
}
```

