**SQLITE PROGRAM**

**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:padding="16dp"

tools:context=".MainActivity">

<EditText

android:id="@+id/editTextName"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Enter Name" />

<EditText

android:id="@+id/editTextAge"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextName"

android:layout\_marginTop="16dp"

android:hint="Enter Age"

android:inputType="number" />

<Button

android:id="@+id/buttonAdd"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/editTextAge"

android:layout\_marginTop="16dp"

android:text="Add Student" />

<ListView

android:id="@+id/listViewStudents"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_below="@id/buttonAdd"

android:layout\_marginTop="16dp" />

</RelativeLayout>

**ACTIVITY MAIN:**

package com.example.sqlite\_simple;

import android.content.ContentValues;

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.ListView;

import android.widget.SimpleCursorAdapter;

import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText editTextName, editTextAge;

private Button buttonAdd;

private ListView listViewStudents;

private DatabaseHelper dbHelper;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editTextName = findViewById(R.id.editTextName);

editTextAge = findViewById(R.id.editTextAge);

buttonAdd = findViewById(R.id.buttonAdd);

listViewStudents = findViewById(R.id.listViewStudents);

dbHelper = new DatabaseHelper(this);

buttonAdd.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String name = editTextName.getText().toString();

String age = editTextAge.getText().toString();

if (!name.isEmpty() && !age.isEmpty()) {

long result = dbHelper.insertData(name, Integer.parseInt(age));

if (result != -1) {

Toast.makeText(MainActivity.this, "Student added successfully", Toast.LENGTH\_SHORT).show();

displayStudents();

editTextName.setText("");

editTextAge.setText("");

} else {

Toast.makeText(MainActivity.this, "Failed to add student", Toast.LENGTH\_SHORT).show();

}

} else {

Toast.makeText(MainActivity.this, "Please enter name and age", Toast.LENGTH\_SHORT).show();

}

}

});

displayStudents();

}

private void displayStudents() {

Cursor cursor = dbHelper.getAllData();

String[] fromColumns = {DatabaseHelper.COL\_NAME, DatabaseHelper.COL\_AGE};

int[] toViews = {android.R.id.text1, android.R.id.text2};

SimpleCursorAdapter adapter = new SimpleCursorAdapter(this,

android.R.layout.simple\_list\_item\_2, cursor, fromColumns, toViews, 0);

listViewStudents.setAdapter(adapter);

}

}

**DATABASE HELPER:**

package com.example.sqlite\_simple;

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 = "students.db";

private static final int DATABASE\_VERSION = 1;

public static final String TABLE\_NAME = "students";

public static final String COL\_ID = "\_id";

public static final String COL\_NAME = "name";

public static final String COL\_AGE = "age";

public DatabaseHelper(Context context) {

super(context, DATABASE\_NAME, null, DATABASE\_VERSION);

}

@Override

public void onCreate(SQLiteDatabase db) {

String createTableQuery = "CREATE TABLE " + TABLE\_NAME + " (" +

COL\_ID + " INTEGER PRIMARY KEY AUTOINCREMENT, " +

COL\_NAME + " TEXT, " +

COL\_AGE + " INTEGER)";

db.execSQL(createTableQuery);

}

@Override

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

db.execSQL("DROP TABLE IF EXISTS " + TABLE\_NAME);

onCreate(db);

}

public long insertData(String name, int age) {

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put(COL\_NAME, name);

contentValues.put(COL\_AGE, age);

return db.insert(TABLE\_NAME, null, contentValues);

}

public Cursor getAllData() {

SQLiteDatabase db = this.getReadableDatabase();

return db.query(TABLE\_NAME, null, null, null, null, null, null);

}

}