Java

package com.example.lab10;  
  
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 {  
  
 DatabaseHelper dbHelper;  
 EditText nameEditText, messageEditText;  
 Button submitButton, viewMessagesButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 dbHelper = new DatabaseHelper(this);  
 nameEditText = findViewById(R.id.*name*);  
 messageEditText = findViewById(R.id.*message*);  
 submitButton = findViewById(R.id.*submit*);  
 viewMessagesButton = findViewById(R.id.*view\_messages*);  
  
 submitButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String name = nameEditText.getText().toString();  
 String message = messageEditText.getText().toString();  
  
 if (name.isEmpty() || message.isEmpty()) {  
 Toast.*makeText*(MainActivity.this, "Please fill all fields", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 boolean isInserted = dbHelper.insertData(name, message);  
 if (isInserted) {  
 Toast.*makeText*(MainActivity.this, "Message Sent", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 Toast.*makeText*(MainActivity.this, "Message Sending Failed", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 }  
 });  
  
 viewMessagesButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Cursor cursor = dbHelper.getData();  
 if (cursor.getCount() == 0) {  
 Toast.*makeText*(MainActivity.this, "No Messages Found", Toast.*LENGTH\_SHORT*).show();  
 return;  
 }  
  
 StringBuilder messages = new StringBuilder();  
 while (cursor.moveToNext()) {  
 messages.append("ID: ").append(cursor.getInt(0)).append("\n");  
 messages.append("Name: ").append(cursor.getString(1)).append("\n");  
 messages.append("Message: ").append(cursor.getString(2)).append("\n\n");  
 }  
 Toast.*makeText*(MainActivity.this, messages.toString(), Toast.*LENGTH\_LONG*).show();  
 }  
 });  
 }  
}

xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="16dp">  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Your Name" />  
  
 <EditText  
 android:id="@+id/message"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Your Message" />  
  
 <Button  
 android:id="@+id/submit"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send" />  
  
 <Button  
 android:id="@+id/view\_messages"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="View Messages" />  
</LinearLayout>

Java/com.example.lab10/DatabaseHelper

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<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="16dp">  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Your Name" />  
  
 <EditText  
 android:id="@+id/message"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Your Message" />  
  
 <Button  
 android:id="@+id/submit"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send" />  
  
 <Button  
 android:id="@+id/view\_messages"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="View Messages" />  
</LinearLayout>