**Database Operations**

**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">

<TextView

android:id="@+id/textView"

android:layout\_width="162dp"

android:layout\_height="40dp"

android:text="DB Operations"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.082" />

<EditText

android:hint="Name"

android:id="@+id/name"

android:layout\_width="278dp"

android:layout\_height="56dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.496"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.254" />

<EditText

android:hint="Place"

android:id="@+id/place"

android:layout\_width="278dp"

android:layout\_height="56dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.496"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.357" />

<EditText

android:hint="Email"

android:id="@+id/email"

android:layout\_width="278dp"

android:layout\_height="56dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.496"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.46" />

<EditText

android:hint="Mobile"

android:id="@+id/mobile"

android:layout\_width="278dp"

android:layout\_height="56dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.496"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.568" />

<Button

android:id="@+id/btnins"

android:layout\_width="267dp"

android:layout\_height="46dp"

android:text="Insert"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.705" />

<Button

android:id="@+id/btnupdt"

android:layout\_width="267dp"

android:layout\_height="46dp"

android:text="Update"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.772" />

<Button

android:id="@+id/btnview"

android:layout\_width="267dp"

android:layout\_height="46dp"

android:text="View"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.839" />

<Button

android:id="@+id/btndel"

android:layout\_width="267dp"

android:layout\_height="46dp"

android:text="Delete"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.906" />

</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.Java:**

package com.example.databaseoperations;

import androidx.appcompat.app.AlertDialog;

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.Toast;

public class MainActivity extends AppCompatActivity {

EditText name,place,email,mobile;

Button btnins,btnupdt,btnview,btndel;

operations op;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

name = findViewById(R.id.name);

place = findViewById(R.id.place);

email = findViewById(R.id.email);

mobile = findViewById(R.id.mobile);

btnins = findViewById(R.id.btnins);

btnupdt = findViewById(R.id.btnupdt);

btnview = findViewById(R.id.btnview);

btndel = findViewById(R.id.btndel);

op=new operations(this);

btnins.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

String Place = place.getText().toString();

String Email = email.getText().toString();

String Mobile = mobile.getText().toString();

boolean insertion = op.onInsert(Name, Place, Email, Mobile);

if (insertion == true) {

Toast.makeText(MainActivity.this,"InsertionSucessfull", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this,"InsertionFailed", Toast.LENGTH\_SHORT).show();

}

}

});

btnupdt.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

String Place = place.getText().toString();

String Email = email.getText().toString();

String Mobile = mobile.getText().toString();

boolean updation = op.onUpdate(Name, Place, Email, Mobile);

if (updation == true) {

Toast.makeText(MainActivity.this,"UpdatedSucessfully", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this,"UpdationFailed", Toast.LENGTH\_SHORT).show();

}

}

});

btnview.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

Cursor res=op.onView();

if(res.getCount()==0){

Toast.makeText(MainActivity.this,"Noentryexists", Toast.LENGTH\_SHORT).show();

return;

}

StringBuffer buffer=new StringBuffer();

while(res.moveToNext()){

buffer.append("Name:"+res.getString(0)+"\n");

buffer.append("Place:"+res.getString(1)+"\n");

buffer.append("Email:"+res.getString(2)+"\n");

buffer.append("Mobile:"+res.getString(3)+"\n");

}

AlertDialog.Builder builder=new AlertDialog.Builder(MainActivity.this);

builder.setCancelable(true);

builder.setTitle("User Entries");

builder.setMessage(buffer.toString());

builder.show();

}

});

btndel.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

boolean deletion = op.onDelete(Name);

if (deletion == true) {

Toast.makeText(MainActivity.this,"DeletionSucessfully", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this,"DeletionFailed", Toast.LENGTH\_SHORT).show();

}

}

});

}

}

**operations.java:**

package com.example.databaseoperations;

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class operations extends SQLiteOpenHelper {

public operations(Context context) {

super(context, "DBpersons", null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

db.execSQL("create table tblpersons (Name varchar(20) primary key,Place varchar(30),Email varchar(20),Mobile varchar(10))");

}

@Override

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

db.execSQL("drop table if exists tblpersons");

}

public boolean onInsert(String Name,String Place,String Email,String Mobile){

SQLiteDatabase sdb=this.getWritableDatabase();

ContentValues cv=new ContentValues();

cv.put("Name",Name);

cv.put("Place",Place);

cv.put("Email",Email);

cv.put("Mobile",Mobile);

long result = sdb.insert("tblpersons",null,cv);

if(result==-1){

return false;

}

else{

return true;

}

}

public boolean onUpdate(String Name,String Place,String Email,String Mobile){

SQLiteDatabase sdb=this.getWritableDatabase();

ContentValues cv=new ContentValues();

cv.put("Place",Place);

cv.put("Email",Email);

cv.put("Mobile",Mobile);

Cursor cr =sdb.rawQuery("select \* from tblpersons where Name=?",new String[]{Name});

if(cr.getCount()>0){

long result = sdb.delete("tblpersons","Name=?", new String[]{Name});

if(result==-1){

return false;

}

else{

return true;

}

}

else{

return false;

}

}

public Cursor onView(){

SQLiteDatabase sdb=this.getWritableDatabase();

Cursor cursor=sdb.rawQuery("Select \* from tblpersons",null);

return cursor;

}

public boolean onDelete(String Name){

SQLiteDatabase sdb=this.getWritableDatabase();

Cursor cr =sdb.rawQuery("select \* from tblpersons where Name=?",new String[]{Name});

if(cr.getCount()>0){

long result = sdb.delete("tblpersons","Name=?", new String[]{Name});

if(result==-1){

return false;

}

else{

return true;

}

}

else{

return false;

}

}

}

**Output:**

Graphical user interface

Description automatically generated   Graphical user interface, application

Description automatically generated  