**PROGRAM 15 Date:17/2/2022**

**AIM:** Create database using SQLite and perform INSERT, SELECT, UPDATE and DELETE on SQLite database.

# PROGRAM CODE:

**activity\_main.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*

<RelativeLayout xmlns:android=["http://schemas.android.com/](http://schemas.android.com/apk/res/android)a[pk/res/android"](http://schemas.android.com/apk/res/android) xmlns:app=["http://sc](http://schemas.android.com/apk/res-auto)h[emas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:t[ools="ht](http://schemas.android.com/tools)tp:/[/sc](http://schemas.android.com/tools)he[mas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:padding="10dp" tools:context=".MainActivity">

<TextView android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:text="Please enter the details below:" android:textSize="24dp" android:id="@+id/texttitle"

/>

<EditText android:id="@+id/et1"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="Name" android:textSize="24dp"

android:inputType="textPersonName" android:layout\_below="@+id/texttitle"/>

<EditText android:id="@+id/et2"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="Contact" android:textSize="24dp" android:inputType="number" android:layout\_below="@+id/et1"/>

<EditText android:id="@+id/et3"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="DOB" android:textSize="24dp" android:inputType="number" android:layout\_below="@+id/et2"/>

<Button

android:id="@+id/Insert" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="24dp" android:text="Insert New Data" android:layout\_below="@+id/et3"/>

<Button

android:id="@+id/Update" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="24dp" android:text="Update Data" android:layout\_below="@+id/Insert"/>

<Button

android:id="@+id/Delete" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="24dp" android:text="Delete Data" android:layout\_below="@+id/Update"/>

<Button

android:id="@+id/View" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:textSize="24dp" android:text="View Data" android:layout\_below="@+id/Delete"/>

</RelativeLayout>

# DBHelper.java

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 DBHelper extends SQLiteOpenHelper { public DBHelper(@Nullable Context context) {

super(context, "userdata.db",null,1);

}

@Override

public void onCreate(SQLiteDatabase DB) {

DB.execSQL("create Table userdetails(name TEXT primary key, contact TEXT , dob TEXT)");

}

@Override

public void onUpgrade(SQLiteDatabase DB, int i, int i1) { DB.execSQL("drop Table if exists userdetails");

}

public Boolean insertData(String name, String contact, String dob)

{

SQLiteDatabase DB= this.getWritableDatabase(); ContentValues contentValues=new ContentValues(); contentValues.put("name",name); contentValues.put("contact",contact); contentValues.put("dob",dob);

long result=DB.insert("userdetails",null,contentValues); if(result==-1)

return false; else

return true;

}

public Boolean updateData(String name, String contact, String dob)

{

SQLiteDatabase DB= this.getWritableDatabase(); ContentValues contentValues=new ContentValues(); contentValues.put("contact",contact); contentValues.put("dob",dob);

Cursor cursor=DB.rawQuery("select \* from userdetails where name=?", new String[]

{name});

if(cursor.getCount()>0) {

long result = DB.update("userdetails", contentValues, "name=?", new String[]{name});

if (result == -1) return false;

else

return true;

}

else

{

return false;

}

}

public Boolean deleteData(String name)

{

SQLiteDatabase DB= this.getWritableDatabase();

Cursor cursor=DB.rawQuery("select \* from userdetails where name=?", new String[]

{name});

if(cursor.getCount()>0) {

long result = DB.delete("userdetails", "name=?", new String[]{name}); if (result == -1)

return false; else

return true;

}

else

{

return false;

}

}

public Cursor getData()

{

SQLiteDatabase DB= this.getWritableDatabase();

Cursor cursor=DB.rawQuery("select \* from userdetails",null); return cursor;

}

}

# mainactivity.java

package com.example.sqlitedbdemo;

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 et1,et2,et3;

Button Insert,Update,Delete,View; DBHelper db;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*); et1=findViewById(R.id.*et1*); et2=findViewById(R.id.*et2*); et3=findViewById(R.id.*et3*);

Insert =findViewById(R.id.*Insert*); Update = findViewById(R.id.*Update*); Delete = findViewById(R.id.*Delete*); View =findViewById(R.id.*View*);

db= new DBHelper(this);

Insert.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(android.view.View view) { String name= et1.getText().toString();

String contact=et2.getText().toString(); String dob= et3.getText().toString();

boolean checkInsertData= db.insertData(name,contact,dob); if(checkInsertData==true)

Toast.*makeText*(MainActivity.this,"New entry inserted",Toast.*LENGTH\_LONG*).show();

else

Toast.*makeText*(MainActivity.this,"New entry Not inserted",Toast.*LENGTH\_LONG*).show();

}

});

Update.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(android.view.View view) { String name= et1.getText().toString();

String contact=et2.getText().toString(); String dob= et3.getText().toString();

boolean checkUpdateData= db.updateData(name,contact,dob); if(checkUpdateData==true)

Toast.*makeText*(MainActivity.this,"Entry updated",Toast.*LENGTH\_LONG*).show();

else

Toast.*makeText*(MainActivity.this,"Entry Not Updated",Toast.*LENGTH\_LONG*).show();

}

});

Delete.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(android.view.View view) { String name= et1.getText().toString();

boolean checkDeleteData= db.deleteData(name); if(checkDeleteData==true)

Toast.*makeText*(MainActivity.this,"Entry deleted",Toast.*LENGTH\_LONG*).show();

else

Toast.*makeText*(MainActivity.this,"Entry Not deleted",Toast.*LENGTH\_LONG*).show();

}

});

View.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(android.view.View view) { Cursor res = db.getData();

if (res.getCount() == 0) { Toast.*makeText*(MainActivity.this, "No entry exists",

Toast.*LENGTH\_LONG*).show(); return;

}

StringBuffer buffer = new StringBuffer(); while (res.moveToNext()) {

buffer.append("name:" + res.getString(0) + "\n"); buffer.append("contact:" + res.getString(1) + "\n"); buffer.append("data of birth:" + res.getString(2) + "\n\n\n\n\n");

}

});

}

}

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

builder.setTitle("User Enteries"); builder.setMessage(buffer.toString()); builder.show();

}

**RESULT:** Program compiled successfully and output verified.

**OUTPUT:**



 





