**AIM:**

Create database using SQLite and perform INSERT and SELECT

**PROGRAM CODE:**

**JAVA CODE:**

**MainActivity.java**

*package com.example.co5\_q1insertread;*

*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, address, number;*

*Button add, update, delete, viewuser;*

*@Override*

*protected void onCreate(Bundle savedInstanceState) {*

*super.onCreate(savedInstanceState);*

*setContentView(R.layout.activity\_main);*

*}*

*public void insertUser(View view){*

*name = findViewById(R.id.name);*

*address = findViewById(R.id.add);*

*number = findViewById(R.id.num);*

*DBHelper DB = new DBHelper(this);*

*String nam = name.getText().toString();*

*String add = address.getText().toString();*

*String num = number.getText().toString();*

*Boolean checkinsert = DB.insertuserDB(nam,add,num);*

*if(checkinsert){*

*Toast.makeText(this, "User added Succesfully", Toast.LENGTH\_SHORT).show();*

*}*

*else{*

*Toast.makeText(this, "User not added", Toast.LENGTH\_SHORT).show();*

*}*

*name.setText("");*

*address.setText("");*

*number.setText("");*

*}*

*public void updateUser(View view){*

*name = findViewById(R.id.name);*

*address = findViewById(R.id.add);*

*number = findViewById(R.id.num);*

*DBHelper DB = new DBHelper(this);*

*String nam = name.getText().toString();*

*String add = address.getText().toString();*

*String num = number.getText().toString();*

*Boolean checkupdate = DB.UpdateuserDB(nam,add,num);*

*if(checkupdate){*

*Toast.makeText(this, "User data updated Succesfully", Toast.LENGTH\_SHORT).show();*

*}*

*else{*

*Toast.makeText(this, "User date not updated", Toast.LENGTH\_SHORT).show();*

*}*

*name.setText("");*

*address.setText("");*

*number.setText("");*

*}*

*public void deleteUser(View view){*

*name = findViewById(R.id.name);*

*DBHelper DB = new DBHelper(this);*

*String nam = name.getText().toString();*

*Boolean checkdelete= DB.DeleteuserDB(nam);*

*if(checkdelete){*

*Toast.makeText(this, "User deleted Succesfully", Toast.LENGTH\_SHORT).show();*

*}*

*else{*

*Toast.makeText(this, "User not deleted", Toast.LENGTH\_SHORT).show();*

*}*

*name.setText("");*

*address.setText("");*

*number.setText("");*

*}*

*public void viewUser(View view){*

*DBHelper DB = new DBHelper(this);*

*Cursor res = DB.getuserDB();*

*AlertDialog.Builder alert = new AlertDialog.Builder(this);*

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

*alert.setCancelable(true);*

*alert.setTitle("Users Data");*

*alert.setMessage("No user found");*

*alert.show();*

*}*

*else {*

*StringBuffer buffer = new StringBuffer();*

*while (res.moveToNext()) {*

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

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

*buffer.append("Mobile Number:" + res.getString(2) + "\n\n");*

*}*

*alert.setCancelable(true);*

*alert.setTitle("Users Data");*

*alert.setMessage(buffer.toString());*

*alert.show();*

*name.setText("");*

*address.setText("");*

*number.setText("");*

*}*

*}*

*}*

**DBHelper.java**

*package com.example.co5\_q1insertread;*

*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(Context context) {*

*super(context, "User.DB", null, 1);*

*}*

*@Override*

*public void onCreate(SQLiteDatabase DB) {*

*DB.execSQL("create table userdata(name Text primary key, address TEXT, number TEXT)");*

*}*

*@Override*

*public void onUpgrade(SQLiteDatabase DB, int i, int i1) {*

*DB.execSQL("drop Table if exists userdata");*

*}*

*public Boolean insertuserDB(String name,String address, String number){*

*SQLiteDatabase DB = this.getWritableDatabase();*

*ContentValues cv = new ContentValues();*

*cv.put("name",name);*

*cv.put("address",address);*

*cv.put("number",number);*

*long result = DB.insert("userdata",null,cv);*

*if(result==-1){*

*return false;*

*}*

*else{*

*return true;*

*}*

*}*

*public Boolean UpdateuserDB(String name,String address, String number){*

*SQLiteDatabase DB = this.getWritableDatabase();*

*ContentValues cv = new ContentValues();*

*cv.put("address",address);*

*cv.put("number",number);*

*Cursor cursor = DB.rawQuery("Select \* from userdata where name = ?",new String[]{name});*

*if(cursor.getCount()>0){*

*long result = DB.update("userdata",cv,"name=?",new String[]{name});*

*if(result==-1){*

*return false;*

*}*

*else{*

*return true;*

*}*

*}*

*else{*

*return false;*

*}*

*}*

*public Boolean DeleteuserDB(String name){*

*SQLiteDatabase DB = this.getWritableDatabase();*

*Cursor cursor = DB.rawQuery("Select \* from userdata where name = ?",new String[]{name});*

*if(cursor.getCount()>0){*

*long result = DB.delete("userdata","name=?",new String[]{name});*

*if(result==-1){*

*return false;*

*}*

*else{*

*return true;*

*}*

*}*

*else{*

*return false;*

*}*

*}*

*public Cursor getuserDB(){*

*SQLiteDatabase DB = this.getWritableDatabase();*

*Cursor cursor = DB.rawQuery("Select \* from userdata",null);*

*return cursor;*

*}*

*}*

**XML CODE:**

**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">*

*<Button*

*android:id="@+id/adduser"*

*android:layout\_width="wrap\_content"*

*android:layout\_height="wrap\_content"*

*android:onClick="insertUser"*

*android:text="Add User"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.526"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.455" />*

*<Button*

*android:id="@+id/view"*

*android:layout\_width="wrap\_content"*

*android:layout\_height="wrap\_content"*

*android:onClick="viewUser"*

*android:text="View Users"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.528"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.787" />*

*<Button*

*android:id="@+id/delete"*

*android:layout\_width="wrap\_content"*

*android:layout\_height="wrap\_content"*

*android:onClick="deleteUser"*

*android:text="Delete User"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.528"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.664" />*

*<EditText*

*android:id="@+id/name"*

*android:layout\_width="188dp"*

*android:layout\_height="43dp"*

*android:ems="10"*

*android:hint="Name"*

*android:inputType="textPersonName"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.578"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.174" />*

*<EditText*

*android:id="@+id/num"*

*android:layout\_width="188dp"*

*android:layout\_height="43dp"*

*android:ems="10"*

*android:hint="Mobile Number"*

*android:inputType="textPersonName"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.578"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.354" />*

*<TextView*

*android:layout\_width="319dp"*

*android:layout\_height="27dp"*

*android:text="User Registration"*

*android:textAlignment="center"*

*android:textAllCaps="true"*

*android:textStyle="bold"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.629"*

*app:layout\_constraintLeft\_toLeftOf="parent"*

*app:layout\_constraintRight\_toRightOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.042" />*

*<EditText*

*android:id="@+id/add"*

*android:layout\_width="188dp"*

*android:layout\_height="43dp"*

*android:ems="10"*

*android:hint="Address"*

*android:inputType="textPersonName"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.578"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.271" />*

*<Button*

*android:id="@+id/update"*

*android:layout\_width="wrap\_content"*

*android:layout\_height="wrap\_content"*

*android:onClick="updateUser"*

*android:text="Update User Data"*

*app:layout\_constraintBottom\_toBottomOf="parent"*

*app:layout\_constraintEnd\_toEndOf="parent"*

*app:layout\_constraintHorizontal\_bias="0.528"*

*app:layout\_constraintStart\_toStartOf="parent"*

*app:layout\_constraintTop\_toTopOf="parent"*

*app:layout\_constraintVertical\_bias="0.571" />*

*</androidx.constraintlayout.widget.ConstraintLayout>*