

## **COURSE OUTCOME 5**

### **PROGRAM NO: 1**

**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>
```

**RESULT:** The program executed successfully and obtained the output.

## OUTPUT

9:01 9:01 9:01 22%

CO5\_Q1(INsert&READ)

USER REGISTRATION

Name

Address

Mobile Number

ADD USER

UPDATE USER DATA

DELETE USER

VIEW USERS

User added Succesfully

9:01 9:01 9:01 22%

CO5\_Q1(INsert&READ)

USER REGISTRATION

christy raj

Raj

1235689

ADD USER

UPDATE USER DATA

DELETE USER

VIEW USERS

9:01 9:01 9:01 22%

CO5\_Q1(INsert&READ)

USER REGISTRATION

**Users Data**

Name:Shana  
Address:NP  
Mobile Number:1134689

Name:Shana Parween  
Address:NP  
Mobile Number:12467900

Name:  
Address:  
Mobile Number:

Name:christy raj  
Address:Raj  
Mobile Number:1235689

VIEW USERS

## PROGRAM NO :2

**AIM:** Perform UPDATE and DELETE on SQLite database

### **PROGRAM CODE:**

#### **JAVA CODE:**

##### **MainActivity.java**

```
package com.example.co5_q2updatedelete;
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_q2updatedelete;
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>

**RESULT:** The program executed successfully and obtained the output.

## OUTPUT

