

CO5

1. Create database using SQLite and perform INSERT and SELECT And Perform UPDATE and DELETE on SQLite database

MAIN ACTIVITY

```
package com.example.sqlite;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
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 {
    SQLiteDatabase db;
    EditText id,name,salary,dob;
    Button insert,delete,update,clear,search;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        id = (EditText) findViewById(R.id.etid);
        name = (EditText) findViewById(R.id.etname);
        salary = (EditText) findViewById(R.id.etsalary);
        dob = (EditText) findViewById(R.id.etdob);
        insert = (Button) findViewById(R.id.btinsert);
        delete = (Button) findViewById(R.id.btdelete);
        update = (Button) findViewById(R.id.btupdate);
        clear = (Button) findViewById(R.id.btclean);
        search = (Button) findViewById(R.id.btsearch);
        try {

            db = openOrCreateDatabase("empdb", MODE_PRIVATE, null);
            db.execSQL("create table employee(id integer primary key,name
text,sal number,dob date)");
        } catch (Exception e) {
        }

        insert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                try {
                    db.execSQL("insert into employee values(" +
id.getText().toString() + "," + name.getText().toString() + "," +
salary.getText().toString() + "," + dob.getText().toString() + ")");
```

```

        Toast.makeText(getApplicationContext(), "Record Inserted
Successssfully", Toast.LENGTH_SHORT).show();

    } catch (Exception e) {
    }

    id.setText("");
    name.setText("");
    salary.setText("");
    dob.setText("");
}
});

search.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        String x = id.getText().toString();
        Cursor c = db.rawQuery("select *from employee where id=" + x,
null);
        if (c.getCount() == 0) {
            Toast.makeText(getApplicationContext(), "No such Record",
Toast.LENGTH_SHORT).show();
            clear.callOnClick();
            id.setText(x);
        } else {
            c.moveToFirst();
            clear.callOnClick();
            id.setText(x);
            name.setText(c.getString(1));
            salary.setText(c.getString(2));
            dob.setText(c.getString(3));
        }
    }
});

update.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        db.execSQL("update employee set name='" +
name.getText().toString() + "',sal=" + salary.getText().toString() +
",dob='" + dob.getText().toString() + "'where id=" + id.getText());
        Toast.makeText(getApplicationContext(), "Record Updated
Successssfully", Toast.LENGTH_SHORT).show();
    }
});

delete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        db.execSQL("delete from employee where id=" +
id.getText().toString());
        Toast.makeText(getApplicationContext(), "Record Deleted
Successssfully", Toast.LENGTH_SHORT).show();
    }
});

clear.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        id.setText("");
        name.setText("");
        salary.setText("");
    }
});

```

```

        dob.setText("");
        id.setId(getNextID());
    }
});

clear.setOnClickListener();
}

public int getNextID(){
    Cursor c=db.rawQuery("select max(id) as mid from employee",null);
    c.moveToFirst();
    if(c.getString(0)==null)
        return 1;
    else{
        int x=Integer.parseInt(c.getString(0));
        return x+1;
    }
}

@Override
protected void onDestroy()
{
    db.close();
    super.onDestroy();
}
}

```

XML

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/tvid"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Enter id"
        android:layout_marginTop="50dp"
        android:textColor="@color/black"
        android:textSize="20dp"/>

    <EditText
        android:id="@+id/etid"
        android:layout_width="146dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="40dp"
        android:layout_marginTop="30dp"
        android:layout_toRightOf="@id/tvid"
        android:ems="10"
        android:inputType="number"
        android:text=""

```

```

        android:textSize="24sp"
        android:textStyle="bold" />

<Button
    android:id="@+id/btsearch"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="50dp"
    android:layout_marginTop="50dp"
    android:layout_toRightOf="@id/etid"
    android:text="search" />

<TextView
    android:id="@+id/tvname"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="150dp"
    android:text="Enter Name"
    android:textColor="@color/black"
    android:textSize="20dp" />

<EditText
    android:id="@+id/etname"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="11dp"
    android:layout_marginTop="150dp"
    android:layout_toRightOf="@id/tvname"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="" />

<TextView
    android:id="@+id/tvsalary"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="250dp"
    android:text="Enter Salary"
    android:textColor="@color/black"
    android:textSize="20dp" />

<EditText
    android:id="@+id/etsalary"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="11dp"
    android:layout_marginTop="250dp"
    android:layout_toRightOf="@id/tvsalary"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="" />

<TextView
    android:id="@+id/tvdob"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="350dp"
    android:text="Enter DOB"
    android:textColor="@color/black"
    android:textSize="20dp" />

<EditText

```

```

        android:id="@+id/etdob"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="11dp"
        android:layout_marginTop="350dp"
        android:layout_toRightOf="@id/tvdob"
        android:ems="10"
        android:inputType="date"
        android:text="" />

<Button
    android:id="@+id/btinsert"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="450dp"
    android:text="insert" />
<Button
    android:id="@+id/btdelete"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="450dp"
    android:text="delete"
    android:layout_toRightOf="@id/btinsert"/>
<Button
    android:id="@+id/btupdate"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="550dp"
    android:text="update" />
<Button
    android:id="@+id/btclear"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="550dp"
    android:text="clear"
    android:layout_toRightOf="@id/btupdate"/>

```

```
</RelativeLayout>
```

OUTPUT

