

CO5

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

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="62dp"

    android:layout_marginLeft="65dp"

    android:layout_marginTop="30dp"

    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>
```

JAVA

```
package com.example.database;  
  
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 Successsfully",
            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 Successsfully",
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 Successsfully",
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.callOnClick();

}

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();  
}  
}
```

OUTPUT

