

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/id"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="아이디 입력" />

    <EditText
        android:id="@+id/name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="이름 입력" />

    <EditText
        android:id="@+id/phone"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="전화번호 입력" />

    <EditText
        android:id="@+id/addr"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="주소 입력" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">

        <Button
            android:id="@+id/btn1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_margin="1dp"
            android:text="저장" />

        <Button
            android:id="@+id/btn2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_margin="1dp"
            android:text="검색" />

        <Button
            android:id="@+id/btn3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_margin="1dp"
            android:text="찾기" />

        <Button
            android:id="@+id/btn4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_margin="1dp"
            android:enabled="false"
            android:text="수정" />

        <Button
            android:id="@+id/btn5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_margin="1dp"
            android:enabled="false"
            android:text="삭제" />
    </LinearLayout>

    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical" >

            <TextView
                android:id="@+id/result"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textSize="16sp"/>
        </LinearLayout>
    </ScrollView>
</LinearLayout>
```

아이디 입력

이름 입력

전화번호 입력

주소 입력

저장

검색

찾기

수정

삭제

```

public class MainActivity extends AppCompatActivity {
    EditText id, name, phone, addr;
    Button btn1, btn2, btn3, btn4, btn5;
    TextView result;
    SQLiteDatabase database;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        id = findViewById(R.id.id);
        name = findViewById(R.id.name);
        phone = findViewById(R.id.phone);
        addr = findViewById(R.id.addr);

        btn1 = findViewById(R.id.btn1);
        btn2 = findViewById(R.id.btn2);
        btn3 = findViewById(R.id.btn3);
        btn4 = findViewById(R.id.btn4);
        btn5 = findViewById(R.id.btn5);
        result = findViewById(R.id.result);
        // 데이터베이스 생성
        database = openOrCreateDatabase("mydb", MODE_PRIVATE, null);

        // 테이블 생성(req는 날짜는text, 삽입할때, date('now'))
        database.execSQL("create table if not exists members (
            + "id text unique, "
            + "name text , "
            + "phone text, "
            + "addr text,"
            + "reg text )");

        // 저장
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                try{
                    String id = id.getText().toString();
                    String _name = name.getText().toString();
                    String phone = phone.getText().toString();
                    String addr = addr.getText().toString();
                    if(id == null || id.length()==0){
                        Toast.makeText(MainActivity.this, "최소한id는 입력하세요",
                        Toast.LENGTH_SHORT).show();
                        return;
                    }
                    database.execSQL("insert into members values('"+ id + "','" +
                    _name+"','" +
                    + phone+"','" + addr +"', date('now'))");
                    // 검색
                    selectAll();
                    id.setText("");
                    name.setText("");
                    phone.setText("");
                    addr.setText("");
                }catch (Exception e){
                    Toast.makeText(MainActivity.this, "중복된 아이디 입니다.",
                    Toast.LENGTH_SHORT).show();
                }
            }
        });
        btn2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                selectAll();
            }
        });
        btn3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String _id = id.getText().toString();
                Cursor cursor = database.rawQuery("select * from members where id =
                '"+ id +'", null);
                if(! cursor.moveToNext()){
                    Toast.makeText(MainActivity.this, "존재하지 않는id 입니다.",
                    Toast.LENGTH_SHORT).show();
                    id.setText("");
                    return;
                }else{
                    id.setEnabled(false);
                    name.setText(cursor.getString(1));
                    phone.setText(cursor.getString(2));
                    addr.setText(cursor.getString(3));
                    btn4.setEnabled(true);
                    btn5.setEnabled(true);
                }
            }
        });
        btn4.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String id = id.getText().toString();
                String _name = name.getText().toString();
                String phone = phone.getText().toString();
                String addr = addr.getText().toString();
                database.execSQL("update members set name='"+ _name + "', phone='" +
                phone
                +"', addr='"+ addr + "' where id = '"+ id+"'");
                id.setText("");
                name.setText("");
                phone.setText("");
                addr.setText("");
                btn4.setEnabled(false);
                btn5.setEnabled(false);
                selectAll();
            }
        });
    }
}

```

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btn5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        String _id = id.getText().toString();
        database.execSQL("delete from members where id = '"+_id +"'");

        id.setText("");
        name.setText("");
        phone.setText("");
        addr.setText("");
        btn4.setEnabled(false);
        btn5.setEnabled(false);
        selectAll();
    }
});
}

public void selectAll(){
    result.setText("");
    Cursor cursor = database.rawQuery("select * from members ", null);
    while (cursor.moveToNext()){
        result.append(cursor.getString(0)+"\t");
        result.append(cursor.getString(1)+"\t");
        result.append(cursor.getString(2)+"\t");
        result.append(cursor.getString(3)+"\t");
        result.append(cursor.getString(4)+"\n");
    }
}
}

```

