

```

<?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" >

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:orientation="horizontal">

        <EditText
            android:id="@+id/edit1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:inputType="text"
            android:hint="데이터베이스이름" />

        <Button
            android:id="@+id	btn1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="데이터베이스만들기" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:orientation="horizontal">

        <EditText
            android:id="@+id/edit2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:inputType="textPersonName"
            android:hint="테이블만들기" />

        <Button
            android:id="@+id	btn2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="테이블만들기" />
    </LinearLayout>

    <Button
        android:id="@+id	btn3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:text="데이터 넣기" />

    <Button
        android:id="@+id	btn4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:text="검색하기(SELECT)" />

    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10dp">

        <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="15sp"
                android:layout_marginLeft="10dp" />
        </LinearLayout>
    </ScrollView>
</LinearLayout>

```



```
public class MainActivity extends AppCompatActivity {
Button btn1, btn2, btn3, btn4;
EditText edit1, edit2;
TextView result;

// DB 처리
SQLiteDatabase database;
String db_name;
String table_name;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
btn1 = findViewById(R.id.btn1);
btn2 = findViewById(R.id.btn2);
btn3 = findViewById(R.id.btn3);
btn4 = findViewById(R.id.btn4);
edit1 = findViewById(R.id.edit1);
edit2 = findViewById(R.id.edit2);
result = findViewById(R.id.result);

btn1.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
db_name = edit1.getText().toString();
// 데이터베이스 만드는 메소드(제작)
createDatabase(db_name);
}
});
btn2.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
table_name = edit2.getText().toString();
// 테이블 만드는 메소드(제작)
createTable(table_name);
}
});
btn3.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
// 레코드(데이터 삽입)
insertRecord();
}
});
btn4.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
// select
selectRecord();
}
});

public void createDatabase(String db_name){
// 데이터베이스 만들기: openOrCreateDatabase("데이터베이스이름", 사용모드, 커서생성)
// 데이터베이스 만들기를 성공하면
// Device File Explorer에서 확인
가능(data/data/패키지이름/databases/데이터베이스이름.db)
database = openOrCreateDatabase(db_name, MODE_PRIVATE, null);
result.append("데이터 베이스 생성됨 \n");
}

public void createTable(String table_name){
if(database == null){
Toast.makeText(this, "데이터베이스를 먼저 만드세요", Toast.LENGTH_SHORT).show();
return;
}
// 테이블 만들기: MariaDB, MySQL과 같은 쿼리 사용
// 쿼리 실행 명령어: execSQL
database.execSQL("create table if not exists "+ table_name + "("
+ "_idx integer primary key autoincrement, "
+ "_name text , "
+ "_age integer, "
+ "_phone text)");
result.append(table_name+ "테이블 생성 \n");
}

public void insertRecord(){
if(database == null){
Toast.makeText(this, "데이터베이스를 먼저 만드세요", Toast.LENGTH_SHORT).show();
return;
}
if(table_name == null){
Toast.makeText(this, "테이블을 먼저 만드세요", Toast.LENGTH_SHORT).show();
return;
}
// 레코드 삽입
database.execSQL("insert into "+ table_name + " (_name, _age, _phone)
values('John', 20, '010-7979-7979')");
database.execSQL("insert into "+ table_name + " (_name, _age, _phone)
values('Hong', 34, '010-7979-7979')");
database.execSQL("insert into "+ table_name + " (_name, _age, _phone)
values('Kim', 45, '010-7979-7979')");
database.execSQL("insert into "+ table_name + " (_name, _age, _phone)
values('Park', 28, '010-7979-7979')");
result.append("레코드 추가 \n");
}
}
```

```
public void selectRecord(){
if(database == null){
Toast.makeText(this, "데이터베이스를 먼저 만드세요",
Toast.LENGTH_SHORT).show();
return;
}
if(table_name == null){
Toast.makeText(this, "테이블을 먼저 만드세요",
Toast.LENGTH_SHORT).show();
return;
}
// select문 실행: 결과는Cursor, 실행문: rawQuery(sql,
selectionArgs );
// insert, update, delete 실행:
Cursor cursor = database.rawQuery("select * from "+table_name,
null );

// select 결과는cursor이므로while문을 통해서 정보를 얻어낼수
// 있다.
while(cursor.moveToNext()){
result.append("_idx : " + cursor.getInt(0)+"\n");
result.append("_name : " + cursor.getString(1)+"\n");
result.append("_age : " + cursor.getInt(2)+"\n");
result.append("_phone : " + cursor.getString(3)+"\n");
result.append("=====+\n");
}
}

}
```

