
南京邮电大学通达学院

课程设计报告

题 目 课程大作业——备忘录 APP 的设计与开发

专 业

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一、概述

随着社会经济的发展，人们的生活压力也与日俱增。忙碌的生活安排，繁琐的事物压的人们没有一点儿喘气的机会。因此，为了更好的避免因事务太多而忘记一些更重要的事情，且又方便携带。一款简单且实用的备忘录手机 APP 已成为人们生活中必不可少的一部分。在当今社会，智能手机是基本上人手一个，极受欢迎。因此，设计一个简单且实用的手机软件是很有发展前景的。

二、程序设计方案

2.1 系统功能

- (1) 备忘录的创建 主键自动生成，将控件中的数据对 Word 字段进行赋值
- (2) 备忘录的修改 将控件中的数据对 Word 字段进行赋值，查询条件是原先的 Word 字段相等
- (4) 备忘录的查询 对 Word 字段进行查询，查询条件是控件中的数据相等
- (5) 备忘录的删除 按照 Word 字段进行删除，查询条件是控件中的数据相等
- (6) 备忘录数目的统计 通过 SharedPreferences 来存储和读取数据

2.2 该项目涉及到的技术点

- (1) 界面控件: TextView, EditText, Button, ImageButton, ListView, View
- (2) 布局: 线性布局
- (3) 事件: 监听事件
- (4) 数据存储: SQLite 存储
- (5) Activity 和 Intent

2.3 SQLite 存储介绍

(1) SQLite 是一个轻量级的关系型数据库，运算速度快，占用资源少，很适合在移动设备上使用，不仅支持标准 SQL 语法，还遵循 ACID(数据库事务)原则，无需账号，使用起来非常方便！

(2) 但是在很多情况下，文件并不一定是有效的，如多线程并发访问是相关的；app 要处理可能变化的复杂数据结构等等！比如银行的存钱与取钱！使用前两者就会显得很无力或者繁琐，数据库的出现可以解决这种问题，而 Android 又给我们提供了这样一个轻量级的 SQLite，为何不用？

(3) SQLite 支持五种数据类型: NULL, INTEGER, REAL(浮点数), TEXT(字符串文本) 和 BLOB(二进制对象) 虽然只有五种,但是对于 varchar, char 等其他数据类型都是可以保存的; 因为 SQLite 有个最大的特点: 你可以各种数据类型的数据保存到任何字段中而不用关心字段声明的数据类型是什么, 比如你 可以在 Integer 类型的字段中存放字符串, 当然除了声明为主键 INTEGER PRIMARY KEY 的字段只能够存储 64 位整数! 另外, SQLite 在解析 CREATE TABLE 语句时, 会忽略 CREATE TABLE 语句中跟在字段名后面的数据类型信息如下面语句会忽略 name 字段的类型信息: CREATE TABLE person (personid integer primary key autoincrement, name varchar(20))

三、程序系统实现

3.1 登录注册主页面

界面代码：

```
<?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"        android:orientation="vertical">

    <TextView
        android:id="@+id/tv_main_username"                android:layout_width="wrap_content"
        android:layout_height="wrap_content"                android:layout_marginStart="8dp"
        android:layout_marginTop="164dp"                android:layout_marginEnd="8dp"
        android:text="@string/main_name"                android:textColor="@color/titleText"
        android:textSize="23sp"                android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"                app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/tv_main_userid"                android:layout_width="wrap_content"
        android:layout_height="wrap_content"                android:layout_marginTop="16dp"
        android:text="用户 ID"
        app:layout_constraintEnd_toEndOf="@+id/tv_main_username"
        app:layout_constraintStart_toStartOf="@+id/tv_main_username"
        app:layout_constraintTop_toBottomOf="@+id/tv_main_username" />

    <Button
        android:id="@+id/btn_main_login"                android:layout_width="160dp"
        android:layout_height="35dp"                android:layout_marginTop="24dp"
        android:background="@drawable/button_shape"                android:text="@string/login"
        android:textColor="@color/buttonText"                android:textSize="23sp"
        app:layout_constraintEnd_toStartOf="@+id/btn_main_register"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tv_main_userid" />

    <Button
        android:id="@+id/btn_main_register"
        android:layout_width="160dp"                android:layout_height="35dp"
        android:background="@drawable/button_shape"                android:text="@string/register"
        android:textColor="@color/buttonText"                android:textSize="23sp"
        app:layout_constraintBottom_toBottomOf="@+id/btn_main_login"
        app:layout_constraintEnd_toEndOf="parent"                app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toEndOf="@+id/btn_main_login"
        app:layout_constraintTop_toTopOf="@+id/btn_main_login" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

后台代码:

```
package com.example.myapplication;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;
import java.util.Map;

public class MainActivity extends AppCompatActivity {

    private Button btnLogin, btnRegister;
    private ImageView ivLogin;
    private TextView tvUsername, tvUserId;
    private static final int REQUEST_REGISTER_CODE = 1;
    private static final int REQUEST_LOGIN_CODE = 2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        tvUserId = findViewById(R.id.tv_main_userid);
        tvUsername = findViewById(R.id.tv_main_username);
        btnLogin = findViewById(R.id.btn_main_login);
        btnRegister = findViewById(R.id.btn_main_register);
        btnLogin.setOnClickListener(new OnClickListener());
        btnRegister.setOnClickListener(new OnClickListener());
    }

    private class OnClickListener implements View.OnClickListener {

        @Override
        public void onClick(View view) {
            Intent intent = new Intent();

            switch (view.getId()) {
                case R.id.btn_main_login:
                    intent.setClass(MainActivity.this, LoginActivity.class);
                    startActivityForResult(intent, REQUEST_LOGIN_CODE);
                    break;
                case R.id.btn_main_register:
                    intent.setClass(MainActivity.this, RegisterActivity.class);
                    startActivityForResult(intent, REQUEST_REGISTER_CODE);
                    break;
            }
        }
    }

    @Override
    protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent intent) {
        super.onActivityResult(requestCode, resultCode, intent);

        if (intent == null) {return;}

        switch (requestCode) {
            case REQUEST_REGISTER_CODE:
                if (resultCode == 11) {
                    tvUserId.setText(intent.getStringExtra("userId"));
                    tvUsername.setText(intent.getStringExtra("userName"));
                    Toast.makeText(this, "注册成功!", Toast.LENGTH_LONG).show();
                } else {
                    Toast.makeText(this, "注册失败!", Toast.LENGTH_LONG).show();
                }
                break;
            case REQUEST_LOGIN_CODE:

```

```

        if (resultCode == 21) {
            tvUserId.setText(intent.getStringExtra("userId"));
            tvUsername.setText(intent.getStringExtra("userName"));
        } else {Toast.makeText(this, "登陆失败!", Toast.LENGTH_LONG).show();}

        break;
    default:
        Toast.makeText(this, "操作失败!", Toast.LENGTH_LONG).show();
        break;}}}

```

3.2 登陆页面

界面代码：

```

<?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:background="@color/bg"                android:orientation="vertical"
    android:layout_width="match_parent"            android:layout_height="match_parent"
    tools:context=".LoginActivity">
    <ImageView
        android:id="@+id/close"                    android:layout_marginTop="45dp"
        android:layout_marginLeft="20dp"            android:src="@drawable/close"
        android:layout_width="17dp"                 android:layout_height="17dp" />
    <TextView
        android:textSize="25sp"                    android:text="@string/login"
        android:layout_marginTop="45dp"              android:layout_marginLeft="30dp"
        android:textColor="@color/fontText"          android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <LinearLayout
        android:layout_marginTop="40dp"              android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <TextView
            android:textColor="@color/fontText"      android:layout_marginLeft="30dp"
            android:text="@string/login_name"         android:textSize="16sp"
            android:layout_width="wrap_content"       android:layout_height="wrap_content" />
        <EditText
            android:textColorHint="@color/input_text_hint"
            android:background="@null"                android:id="@+id/et_login_userid"
            android:layout_marginLeft="55dp"           android:textSize="16sp"
            android:hint="@string/name_hint"           android:layout_width="200dp"
            android:layout_height="wrap_content" />
    </LinearLayout>
    <ImageView
        android:id="@+id/login_diver1"              android:layout_marginTop="17dp"
        android:layout_gravity="center_horizontal"   android:background="@color/input_text_hint"
        android:layout_width="320dp"                 android:layout_height="1dp" />

```

```

<LinearLayout
    android:layout_marginTop="20dp"                android:layout_width="match_parent"
    android:layout_height="wrap_content">

    <TextView
        android:textSize="16sp"                    android:textColor="@color/fontText"
        android:layout_marginLeft="30dp"            android:text="@string/login_passwd"
        android:layout_width="wrap_content"          android:layout_height="wrap_content" />

    <EditText
        android:textColorHint="@color/input_text_hint"
        android:inputType="textPassword"            android:background="@null"
        android:id="@+id/et_login_passwd"           android:layout_marginLeft="55dp"
        android:textSize="16sp"                    android:hint="@string/passwd_hint"
        android:layout_width="200dp"                android:layout_height="wrap_content" />

</LinearLayout>

<ImageView
    android:id="@+id/login_diver2"                 android:layout_marginTop="17dp"
    android:layout_gravity="center_horizontal"      android:background="@color/input_text_hint"
    android:layout_width="320dp"                   android:layout_height="1dp" />

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

</LinearLayout>

<LinearLayout
    android:layout_marginTop="40dp"                 android:gravity="center_horizontal"
    android:layout_width="match_parent"             android:layout_height="wrap_content">

    <Button
        android:textSize="16sp"                    android:id="@+id/btn_login"
        android:layout_width="321dp"                android:layout_height="48dp"
        android:background="@drawable/button_shape"  android:text="@string/login"
        android:textColor="@color/buttonText" />

</LinearLayout>

</LinearLayout>

```

后台代码:

```

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;    import android.content.Intent;
import android.os.Bundle;                     import android.view.View;
import android.widget.Button;                  import android.widget.EditText;
import android.widget.Toast;

public class LoginActivity extends AppCompatActivity {

    private EditText etUserId,etPasswd;        private Button btnLogin;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_login);

        etUserId=findViewById(R.id.et_login_userid);    etPasswd=findViewById(R.id.et_login_passwd);

```

```

btnLogin=findViewById(R.id. btn_login);
btnLogin.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String userId=etUserId.getText().toString();
        String passwd=etPasswd.getText().toString();
        Intent intent=new Intent();
        if(userId.equals("xiaoming")&&passwd.equals("12345")){
            Toast.makeText(LoginActivity.this,"登陆成功!",Toast.LENGTH_SHORT).show();
            intent.setClass(LoginActivity.this,MainActivity.class);
            intent.putExtra("userId",userId);
            intent.putExtra("userName","小明");
            startActivity(intent);
        }else{setResult(20,intent);}
        finish();}); }

```

3.3 注册页面

界面代码:

```

<?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:background="@color/bg"                android:orientation="vertical"
    android:layout_width="match_parent"            android:layout_height="match_parent"
    tools:context=".RegisterActivity">
    <ImageView
        android:id="@+id/register_return"          android:layout_marginTop="45dp"
        android:layout_marginLeft="20dp"            android:src="@drawable/back"
        android:layout_width="17dp"                 android:layout_height="17dp" />
    <TextView
        android:textSize="25sp"                     android:text="@string/register"
        android:layout_marginTop="25dp"              android:layout_marginLeft="30dp"
        android:textColor="@color/fontText"          android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <LinearLayout
        android:layout_marginTop="40dp"              android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <TextView
            android:textColor="@color/fontText"      android:layout_marginLeft="30dp"
            android:text="@string/reg_nick_name"     android:textSize="16sp"
            android:layout_width="wrap_content"      android:layout_height="wrap_content" />
        <EditText
            android:textColorHint="@color/input_text_hint"
            android:background="@null"                android:id="@+id/reg_username"
            android:layout_marginLeft="55dp"          android:textSize="16sp"

```

```

        android:hint="@string/reg_nick_hint"        android:layout_width="200dp"
        android:layout_height="wrap_content" />
</LinearLayout>
<ImageView
    android:id="@+id/reg_diver1"                    android:layout_marginTop="17dp"
    android:layout_gravity="center_horizontal"
    android:background="@color/input_text_hint"
    android:layout_width="320dp"                    android:layout_height="1dp" />
<LinearLayout
    android:layout_marginTop="20dp"                  android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <TextView
        android:textColor="@color/fontText"          android:layout_marginLeft="30dp"
        android:text="@string/reg_id"                android:textSize="16sp"
        android:layout_width="wrap_content"          android:layout_height="wrap_content" />
    <EditText
        android:textColorHint="@color/input_text_hint"
        android:background="@null"                    android:id="@+id/reg_userid"
        android:layout_marginLeft="55dp"              android:textSize="16sp"
        android:hint="@string/name_hint"              android:layout_width="200dp"
        android:layout_height="wrap_content" />
</LinearLayout>
<ImageView
    android:id="@+id/reg_diver2"                    android:layout_marginTop="17dp"
    android:layout_gravity="center_horizontal"
    android:background="@color/input_text_hint"
    android:layout_width="320dp"                    android:layout_height="1dp" />
<LinearLayout
    android:layout_marginTop="20dp"                  android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <TextView
        android:textSize="16sp"                      android:textColor="@color/fontText"
        android:layout_marginLeft="30dp"              android:text="@string/reg_passwd"
        android:layout_width="wrap_content"            android:layout_height="wrap_content" />
    <EditText
        android:textColorHint="@color/input_text_hint"
        android:background="@null"                    android:inputType="textPassword"
        android:id="@+id/reg_passwd"                  android:layout_marginLeft="55dp"
        android:textSize="16sp"                      android:hint="@string/passwd_hint"
        android:layout_width="200dp"                  android:layout_height="wrap_content" />
</LinearLayout>
<ImageView
    android:id="@+id/reg_diver3"                    android:layout_marginTop="17dp"
    android:layout_gravity="center_horizontal"

```

```

        android:background="@color/input_text_hint"
        android:layout_width="320dp"                android:layout_height="1dp" />
    <LinearLayout
        android:layout_marginTop="40dp"                android:gravity="center_horizontal"
        android:layout_width="match_parent"            android:layout_height="wrap_content">
        <Button
            android:id="@+id/btn_register"                android:layout_width="321dp"
            android:layout_height="48dp"                android:background="@drawable/button_shape"
            android:text="@string/register"            android:textColor="@color/buttonText"
            android:textSize="16sp" />
    </LinearLayout>
</LinearLayout>

```

后台代码:

```

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;    import android.content.Intent;
import android.os.Bundle;                    import android.view.View;
import android.widget.Button;                import android.widget.EditText;

public class RegisterActivity extends AppCompatActivity {

    private EditText etUsername, etUserId, etPasswd;    private Button btnRegister;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_register);

        etUsername=findViewById(R.id.reg_username);

        etUserId=findViewById(R.id.reg_userid);

        btnRegister=findViewById(R.id.btn_register);

        btnRegister.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                Intent intent=new Intent();

                intent.putExtra("userId",etUserId.getText().toString());

                intent.putExtra("userName",etUsername.getText().toString());

                setResult(11,intent);

                finish();});});}

```

3.4 添加记录，删除记录

界面代码:

```

<?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">

    <ListView

        android:id="@+id/listview"                android:layout_width="match_parent"

```

```

        android:layout_height="match_parent"                android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"                      android:layout_marginEnd="8dp"
        app:layout_constraintBottom_toTopOf="@id/guideline"
        app:layout_constraintEnd_toEndOf="parent"           app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guideline"                            android:layout_width="wrap_content"
    android:layout_height="wrap_content"                   android:orientation="horizontal"
    app:layout_constraintGuide_percent="0.85499316" />

<ImageButton
    android:id="@+id/imageButton"                          android:layout_width="wrap_content"
    android:layout_height="wrap_content"                   android:background="@drawable/button"
    android:layout_marginBottom="34dp"                     app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"              app:layout_constraintStart_toStartOf="parent"
    app:srcCompat="@android:drawable/ic_input_add" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

后台代码：

```

package com.example.myapplication;                        import java.util.List;
import androidx.appcompat.app.AlertDialog;                import androidx.appcompat.app.AppCompatActivity;
import androidx.room.Room;                               import android.content.DialogInterface;
import android.content.Intent;                           import android.os.Bundle;
import android.view.View;                                 import android.widget.AdapterView;
import android.widget.ImageButton;                         import android.widget.ListView;

public class MainActivity extends AppCompatActivity {

    private ListView listView;                            private NoteDatabase noteDatabase;
    private ImageButton button;                          private NoteDao noteDao;
    private List<Note> list;                              private NoteAdapter noteAdapter;

    @Override

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        noteDatabase= Room.databaseBuilder(this, NoteDatabase.class, "Note").allowMainThreadQueries().build();
        noteDao=noteDatabase.getNoteDao();
        listView=findViewById(R.id.listView);
        updateView();
        button=findViewById(R.id.imageButton);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(MainActivity.this, Main2Activity.class);
                startActivity(intent);});
        listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {

```

```

@Override

public boolean onItemLongClick(AdapterView<?> adapterView, View view, int position, long l) {

    AlertDialog.Builder alert=new AlertDialog.Builder(MainActivity.this);

    alert.setMessage("您确定要删除这条记录吗? ");

    alert.setNegativeButton("取消",null);

    alert.setPositiveButton("确定", new DialogInterface.OnClickListener() {

        @Override

        public void onClick(DialogInterface dialogInterface, int i) {

            List<Note>list1=noteDao.getAllNotes();

            int j=list1.get(position).getId();

            Note note= new Note("", "", "");    note.setId(j);

            noteDao.deleteNotes(note);        updateView();});

        alert.show();        return true;}});

listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {

    @Override

    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {

        Intent intent = new Intent(MainActivity.this, Main3Activity.class);

        List<Note>list2=noteDao.getAllNotes();

        int k=list2.get(i).getId();

        intent.putExtra("id",k);

        startActivity(intent);});

@Override

protected void onResume() {

    super.onResume();        updateView();

private void updateView() {

    list= noteDao.getAllNotes();

    noteAdapter=new NoteAdapter(list, MainActivity.this);

    listView.setAdapter(noteAdapter);}}

```

3.4 修改，保存记录

界面代码：

```

<?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=".Main2Activity">

    <EditText

        android:id="@+id/editText"                android:layout_width="wrap_content"

        android:layout_height="wrap_content"        android:layout_marginStart="16dp"

        android:layout_marginTop="59dp"            android:layout_marginBottom="37dp"

        android:ems="10"                android:inputType="textPersonName"

        app:layout_constraintBottom_toTopOf="@+id/editText2"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent" />

```

```

<EditText
    android:id="@+id/editText2"                android:layout_width="0dp"
    android:layout_height="0dp"                android:layout_marginBottom="8dp"
    android:ems="10"                           android:gravity="start|top"
    android:inputType="textMultiLine"          app:layout_constraintBottom_toTopOf="@+id/guideline2"
    app:layout_constraintEnd_toEndOf="parent"    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop_toBottomOf="@+id/editText" />

<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guideline2"                android:layout_width="wrap_content"
    android:layout_height="wrap_content"        android:orientation="horizontal"
    app:layout_constraintGuide_percent="0.86593705" />

<Button
    android:id="@+id/button"                    android:layout_width="wrap_content"
    android:layout_height="wrap_content"        android:layout_marginTop="8dp"
    android:layout_marginBottom="27dp"         android:text="保存"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.848"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.074" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

后台代码：

```

package com.example.myapplication;            import androidx.appcompat.app.AppCompatActivity;

import androidx.room.Room;                    import android.content.Intent;

import android.os.Bundle;                     import android.view.View;

import android.widget.Button;                   import android.widget.EditText;

import java.util.Calendar;                     import java.util.List;

public class MainActivity extends AppCompatActivity {

    private EditText editText, editText2;      private Button button;

    private NoteDao noteDao;                   private NoteDatabase noteDatabase;      private int k;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);    setContentView(R.layout.activity_main3);

        editText=findViewById(R.id.editText);    editText2=findViewById(R.id.editText2);

        button=findViewById(R.id.button);

        noteDatabase= Room.databaseBuilder(this, NoteDatabase.class, "Note").allowMainThreadQueries().build();

        noteDao=noteDatabase.getNoteDao();

        Intent intent=getIntent();

        k=intent.getIntExtra("id", 0);

        editText.setText(noteDao.getiNote(k).getTopic()); editText2.setText(noteDao.getiNote(k).getTopic());

        button.setOnClickListener(new View.OnClickListener() {

            @Override

```

```

    public void onClick(View view) {
        String topic=editText.getText().toString();    String content=editText2.getText().toString();
        Calendar calendar = Calendar.getInstance();
        String year = String.valueOf(calendar.get(Calendar.YEAR));
        String month = String.valueOf(calendar.get(Calendar.MONTH)+1);
        String day = String.valueOf(calendar.get(Calendar.DAY_OF_MONTH));
        String hour = String.valueOf(calendar.get(Calendar.HOUR_OF_DAY));
        String minute = String.valueOf(calendar.get(Calendar.MINUTE));
        String time=year+'.'+month+'.'+day+"\t\t "+hour+' ':'+minute;
        Note note= new Note(topic,content,time);    note.setId(k);

        noteDao.updateNotes(note);    finish();});}}
    }
}

```

3.5 添加 Dao 方法

```

package com.example.myapplication;    import androidx.room.Dao;

import androidx.room.Delete;    import androidx.room.Insert;
import androidx.room.Query;    import androidx.room.Update;
import java.util.List;

@Dao
public interface NoteDao {
    @Insert    void insertNotes(Note...notes);
    @Update    void updateNotes(Note...notes);
    @Delete    void deleteNotes(Note...notes);
    @Query("SELECT * FROM NOTE WHERE id=:id")    Note getiNote(int id);
    @Query("SELECT * FROM NOTE ORDER BY id DESC")    List<Note> getAllNotes();
}

```

3.6 NoteAdapter

```

package com.example.myapplication;    import android.content.Context;
import android.view.View;    import android.view.ViewGroup;
import android.widget.BaseAdapter;    import android.widget.TextView;
import java.util.List;

public class NoteAdapter extends BaseAdapter {
    private List<Note> list;    private Context context;

    public NoteAdapter(List<Note> list, Context context) {
        this.list = list;    this.context = context;
    }

    @Override    public int getCount() {return list.size();}
    @Override    public Object getItem(int i) {return list.get(i);}
    @Override    public long getItemId(int i) {return i;}
    @Override

    public View getView(int i, View view, ViewGroup viewGroup) {
        if(view==null){view=View.inflate(context, R.layout.listview,null);}
        TextView topic=view.findViewById(R.id.textView5);
        TextView time=view.findViewById(R.id.textView6);
        TextView content=view.findViewById(R.id.textView7);    Note iNote=list.get(i);
        topic.setText(iNote.getTopic());    time.setText(iNote.getTime());
        content.setText(iNote.getContent());    return view;}}

```

3.7 颜色设定

```
<?xml version="1.0" encoding="utf-8"?>

<resources>

    <color name="colorPrimary">#6200EE</color>          <color name="colorPrimaryDark">#3700B3</color>
    <color name="colorAccent">#03DAC5</color>          <color name="titleText">#181818</color>
    <color name="buttonText">#FFFFFF</color>          <color name="bg">#EDEDED</color>
    <color name="fontText">#353535</color>          <color name="buttonBackground">#07C160</color>
    <color name="input_text_hint">#D8D8D8</color>

</resources>
```

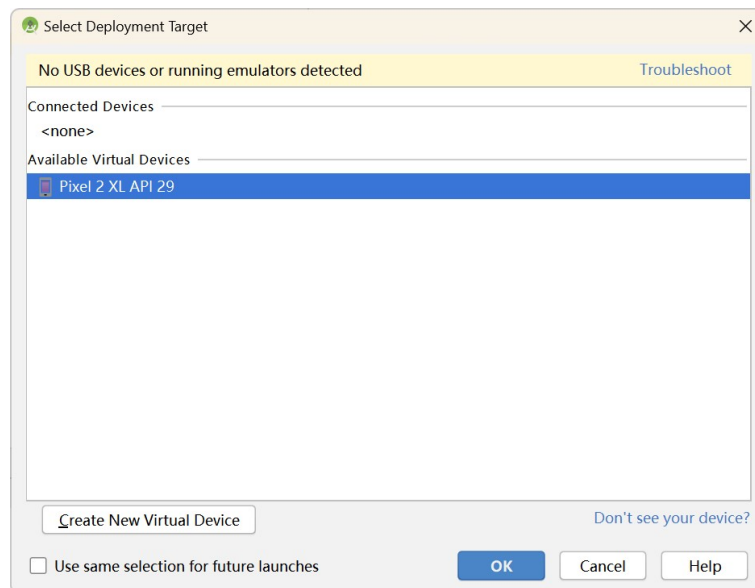
3.8 string

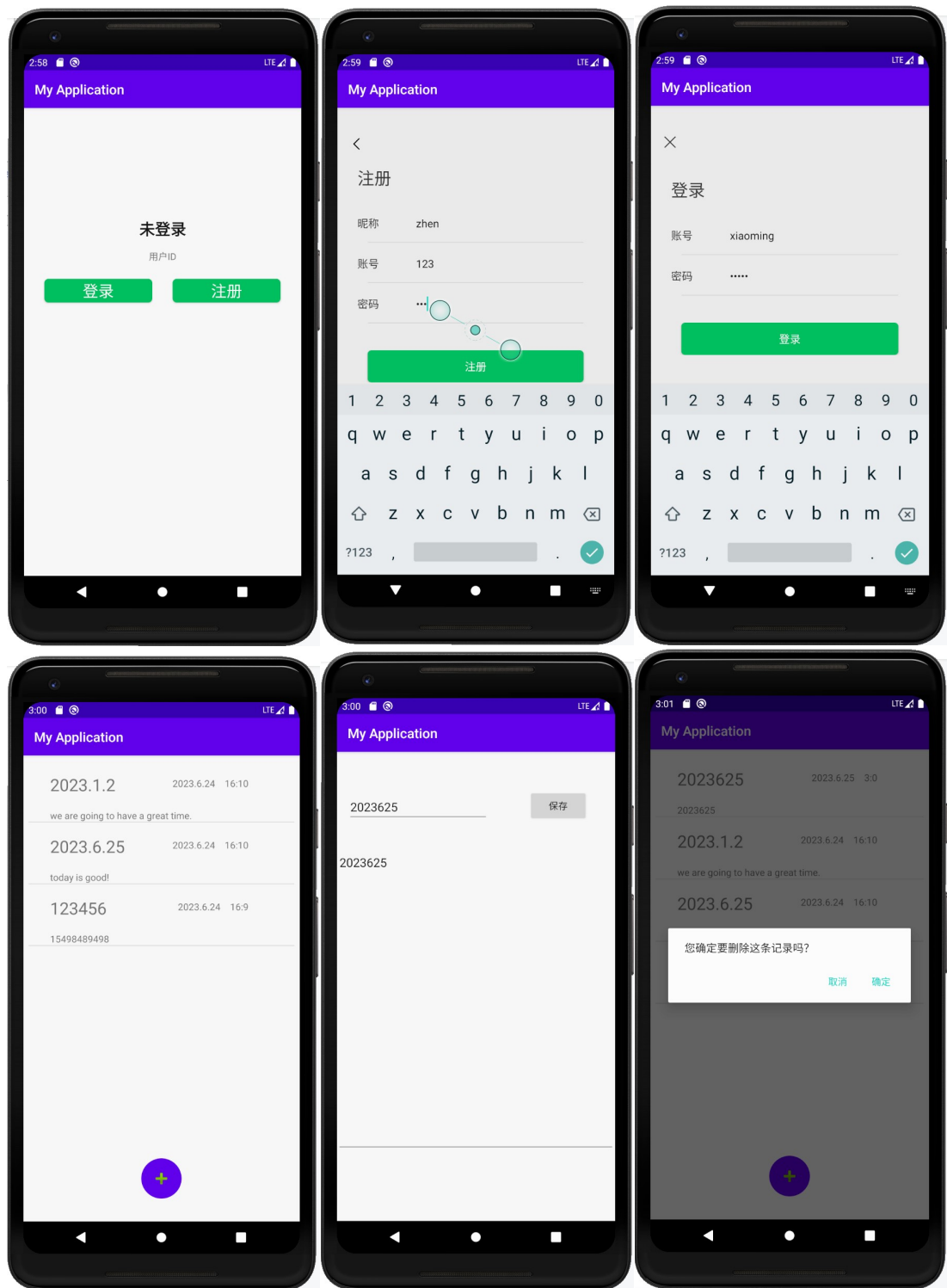
```
<resources>

    <string name="app_name">My Application</string>    <string name="login">登录</string>
    <string name="register">注册</string>            <string name="main_name">未登录</string>
    <string name="login_name">账号</string>          <string name="login_passwd">密码</string>
    <string name="reg_nick_name">昵称</string>        <string name="reg_id">账号</string>
    <string name="reg_passwd">密码</string>          <string name="name_hint">请填写账号</string>
    <string name="reg_nick_hint">请填写用户昵称</string> <string name="passwd_hint">请填写密码</string>

</resources>
```

四、程序测试





五、总结

开始时使用相对布局进行设计，以为可以通过简单的拖拽就可以实现布局的设计，后面发现在控件变多的时候，变得很麻烦，后来使用线性布局进行设计。之前上课学过

SQLiteOpenHelper 类,存在有一些不明白的问题,通过这次课设,掌握了这些知识。