

注册登录界面的设计与实现说明文档

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一、软件名称

TeamUp

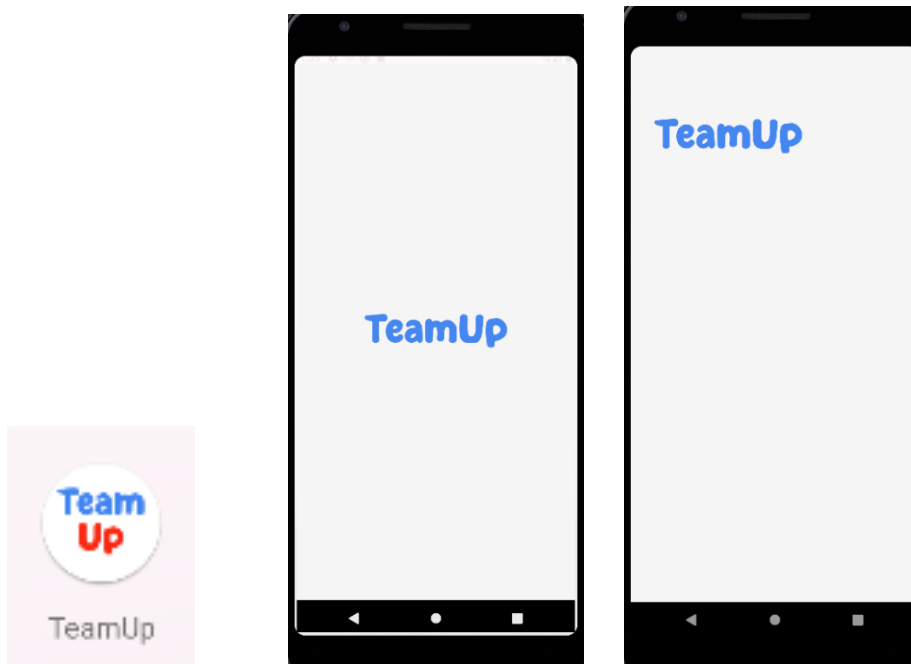
二、软件内容简介

本“TeamUp”APP为使用Android studio开发环境与kotlin语言开发的注册登录界面，其交互界面风格采用清新、简约的风格，并且含有了卡通字体、入场与过渡动画、波浪特效、圆角边框、密码可见与否、中英文自适应切换等元素，使得界面的风格更为自然。

具体的实现上，总共具有三个界面，登录、注册、登录成功等界面：1、在登录界面，用户若在未完整输入信息，或账号与密码不匹配，或账号不存在时，则弹出相应提示；且含有剩余尝试次数限制；且密码框有是否可见的按键；且界面含有注册、预览入口。2、在注册界面，用户若未完整填写信息，或确认密码与密码不一致，则弹出相应提示信息；且密码框有是否可见的按键。3、登录成功页面则简单显示登录成功。4、并且三个页面都含有中英文自适应切换功能。5、且各个页面切换时有过渡动画，登录页面和注册页面含有波浪动效，控件入场动效。

三、界面设计

(一) app开启时的短暂入场页面：

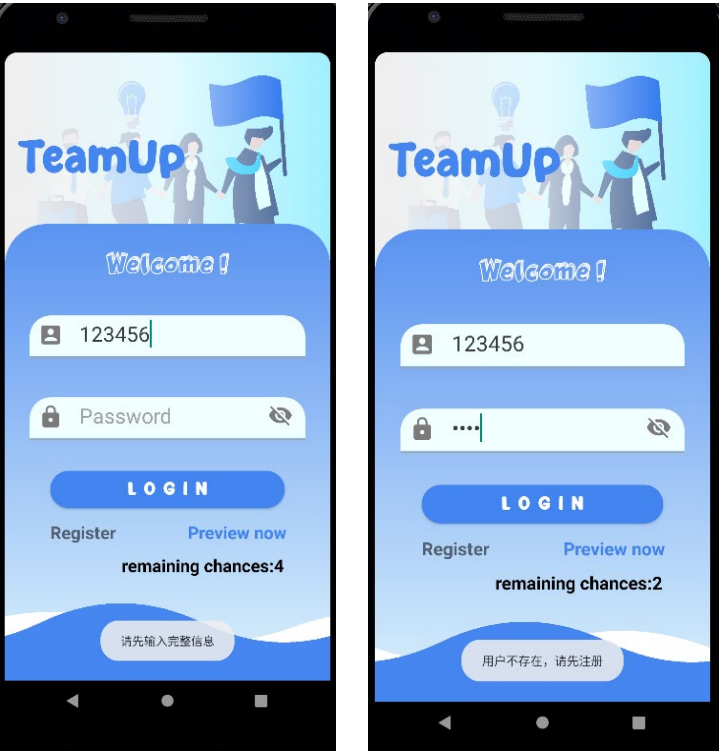


(二) 登录页面：

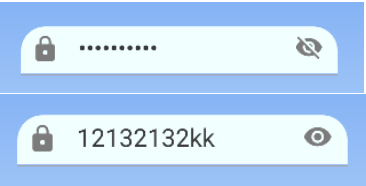
1、中文与英文页面



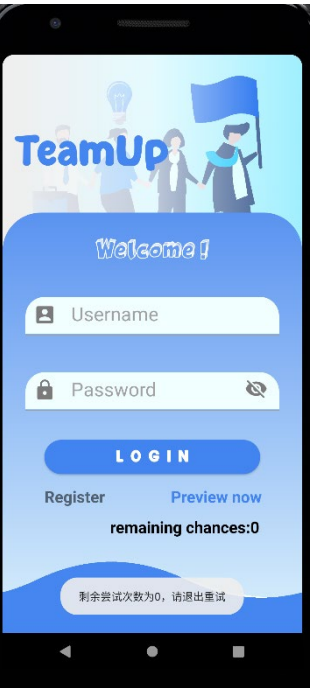
2、用户若在未完整输入信息，或账号不存在时，则弹出相应提示，并且将剩余尝试次数减1。



3、密码是否可见选项

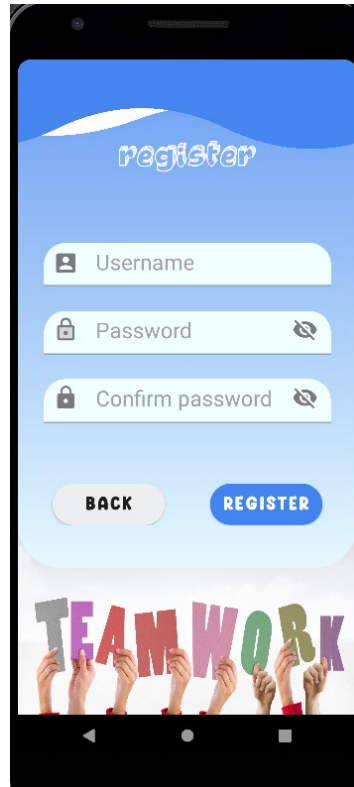
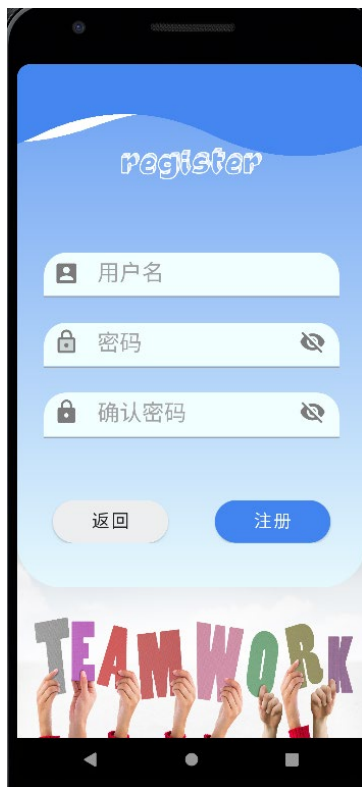


4、尝试次数用尽

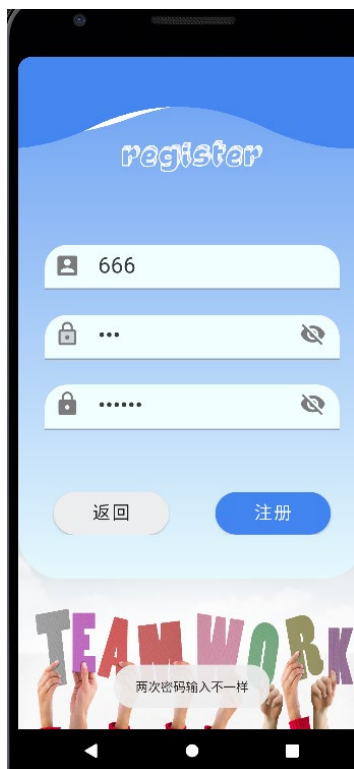


（三）注册界面：

1、中文与英文页面



2、用户若在未完整输入信息，或密码与确认密码不一致，则弹出相应提示。



3、信息输入正确点击注册时跳转至成功界面



四、代码设计

1、登录页面布局文件 activity_main.xml

```
<?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"
    >

    <ImageView
        android:id="@+id/image_header"
        android:layout_width="match_parent"
        android:layout_height="280dp"
        android:contentDescription="@string/app_name"
        android:scaleType="centerCrop"
        android:src="@drawable/login_bgimg"
        app:layout_constraintBaseline_toTopOf="parent"/>

    <View
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:background="@drawable/loginbg_mask"
        app:layout_constraintBottom_toBottomOf="@id/image_header"/>

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="@id/image_header"
        android:layout_marginStart="15dp"
        android:layout_marginBottom="20dp"

        android:gravity="center_vertical">

        <TextView
            android:id="@+id/appname"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="TeamUp"
            android:textColor="#4586F0"
            android:includeFontPadding="false"
            android:textSize="53sp"
            android:textStyle="bold"

            />

    </LinearLayout>

    <View
        android:layout_width="1dp"
        android:layout_height="1dp"
        android:id="@+id/view0"
```

```
        android:layout_marginBottom="35dp"
        app:layout_constraintBottom_toBottomOf="@id/image_header"
        app:layout_constraintStart_toStartOf="parent"
    />
```

```
<androidx.constraintlayout.widget.ConstraintLayout
    android:id="@+id/login_box"
    android:layout_width="match_parent"
    android:layout_height="590dp"
    app:layout_constraintTop_toBottomOf="@id/view0"
    app:layout_constraintBottom_toBottomOf="parent"

    >
```

```
<View
    android:id="@+id/login_move_box"
    android:layout_width="match_parent"
    android:layout_height="590dp"
    android:background="@drawable/login_bgbox"
    app:layout_constraintTop_toTopOf="parent"
    />
```

```
<TextView
    android:id="@+id/welc"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Welcome !"
    android:gravity="center"
    app:layout_constraintTop_toTopOf="parent"
    android:textSize="17sp"
    android:textStyle="bold"
    android:layout_marginTop="30dp"
    android:layout_marginStart="10dp"
    android:layout_marginEnd="10dp"
    android:textColor="#ffffff"
    />
```

```
<EditText
    android:id="@+id/account"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

    app:layout_constraintTop_toBottomOf="@id/welc"
    android:layout_marginTop="45dp"
    android:layout_marginEnd="30dp"
    android:layout_marginStart="30dp"

    android:background="@drawable/input_bd"
    android:paddingTop="5dp"
    android:paddingBottom="10dp"
    android:hint="@string/hint_username"
    android:textColorHint="#A1A1A1"

    android:textColor="#3A3A3A"
    android:textSize="25sp"
    android:imeOptions="actionNext"
    android:inputType="text"
    android:paddingStart="60dp"
    android:paddingEnd="10dp"

    />
```

```
<View
    android:id="@+id/boundary1"
    android:layout_width="match_parent"
    android:layout_height="1dp"
```

```

        android:background="#A1A1A1"
        app:layout_constraintTop_toBottomOf="@id/account"
        android:layout_marginTop="1dp"
        android:layout_marginEnd="30dp"
        android:layout_marginStart="30dp"
    />

    <ImageView
        android:layout_width="30dp"
        android:layout_height="30dp"
        android:src="@drawable/account1"
        app:tint="@color/hint"
        android:contentDescription="account"
        app:layout_constraintBottom_toBottomOf="@id/account"
        app:layout_constraintStart_toStartOf="@id/account"
        android:layout_marginStart="10dp"
        android:layout_marginBottom="10dp"
    />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/password"
        app:layout_constraintTop_toBottomOf="@id/account"
        android:layout_marginTop="50dp"
        android:layout_marginEnd="30dp"
        android:layout_marginStart="30dp"
        android:background="@drawable/input_bd"
        android:paddingTop="5dp"
        android:paddingBottom="10dp"
        android:hint="@string/hint_password"
        android:textColorHint="#A1A1A1"
        android:textColor="#3A3A3A"
        android:textSize="25sp"
        android:imeOptions="actionNext"
        android:inputType="textPassword"
        android:paddingStart="60dp"
        android:paddingEnd="70dp"

    />

    <View
        android:id="@+id/boundary2"
        android:layout_width="match_parent"
        android:layout_height="1dp"
        android:background="#A1A1A1"
        app:layout_constraintTop_toBottomOf="@id/password"
        android:layout_marginTop="1dp"
        android:layout_marginEnd="30dp"
        android:layout_marginStart="30dp"
    />

    <ImageView
        android:layout_width="30dp"
        android:layout_height="30dp"
        android:src="@drawable/password"
        app:tint="@color/hint"
        android:contentDescription="password"
        app:layout_constraintBottom_toBottomOf="@id/password"
        app:layout_constraintStart_toStartOf="@id/password"
        android:layout_marginStart="10dp"
        android:layout_marginBottom="10dp"
    />

    <ImageView
        android:id="@+id/password_vis"
        android:layout_width="30dp"
        android:layout_height="30dp"
        android:layout_marginEnd="15dp"
        android:layout_marginBottom="12dp"

```



```
        android:contentDescription="password"
        android:src="@drawable/invisible"
        app:layout_constraintBottom_toBottomOf="@id/password"
        app:layout_constraintEnd_toEndOf="@id/password"
        app:tint="@color/hint"
        android:clickable="true"
        android:focusable="true"/>
```

```
<Button
    android:id="@+id/login_btn"
    android:layout_width="match_parent"
    android:layout_height="45dp"
    app:layout_constraintTop_toBottomOf="@id/password"
    android:layout_marginTop="40dp"
    android:layout_marginStart="55dp"
    android:layout_marginEnd="55dp"
    android:background="@drawable/login_button_bg"
    android:text="@string/login"
    android:textColor="@color/white"
    android:textStyle="bold"
    android:textSize="20sp"
    android:textScaleX="1.1"
    android:letterSpacing="0.4"
    android:textAllCaps="false"

/>
```

```
<TextView
    android:id="@+id/register"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintTop_toBottomOf="@id/login_btn"
    app:layout_constraintStart_toStartOf="@id/login_btn"
    android:text="@string/register"
    android:textSize="21sp"
    android:layout_marginStart="0dp"
    android:layout_marginTop="15dp"
    android:clickable="true"
    android:focusable="true"
    android:textStyle="bold"

/>
```

```
<TextView
    android:id="@+id/preview"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintTop_toBottomOf="@id/login_btn"
    app:layout_constraintEnd_toEndOf="@id/login_btn"
    android:text="@string/preview"
    android:textColor="#4284f0"
    android:textSize="21sp"
    android:layout_marginEnd="-2dp"
    android:layout_marginTop="15dp"
    android:clickable="true"
    android:focusable="true"
    android:textStyle="bold"

/>
```

```
<TextView
    android:id="@+id/rest_chance"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintTop_toBottomOf="@id/login_btn"
    app:layout_constraintEnd_toEndOf="@id/login_btn"
```

```

        android:text="@string/rest_chance"
        android:textColor="@color/black"
        android:textSize="21sp"
        android:layout_marginEnd="1dp"
        android:layout_marginTop="55dp"
        android:clickable="true"
        android:focusable="true"
        android:textStyle="bold"

    />

</androidx.constraintlayout.widget.ConstraintLayout>

<com.example.login_page.WaveView2
    android:layout_width="match_parent"
    android:layout_height="120dp"
    app:layout_constraintBottom_toBottomOf="parent"
    android:layout_marginBottom="5dp"

    />

<com.example.login_page.WaveView
    android:layout_width="match_parent"
    android:layout_height="140dp"
    app:layout_constraintBottom_toBottomOf="parent"

    />

</androidx.constraintlayout.widget.ConstraintLayout>

```

2、注册页面的布局文件 activity_register.xml

```

<?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=".register_activity">

    <ImageView
        android:id="@+id/register_bg"
        android:layout_width="match_parent"
        android:layout_height="350dp"
        android:contentDescription="register_bg"
        android:scaleType="fitXY"
        android:src="@drawable/register_bg"
        app:layout_constraintBottom_toBottomOf="parent"
    />

    <androidx.constraintlayout.widget.ConstraintLayout

```

```

        android:id="@+id/register_box"
        android:layout_width="match_parent"
        android:layout_height="660dp"
        android:layout_marginBottom="-180dp"

        app:layout_constraintBottom_toTopOf="@id/register_bg"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent">

        <View
            android:id="@+id/register_move_box"
            android:layout_width="match_parent"
            android:layout_height="660dp"
            app:layout_constraintTop_toTopOf="parent"
            android:background="@drawable/register_bgbox"/>

        <androidx.constraintlayout.widget.ConstraintLayout
            android:id="@+id/bottom_bt"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginBottom="50dp"
            app:layout_constraintBottom_toBottomOf="parent">

            <Button
                android:id="@+id/back_bt"
                android:layout_width="130dp"
                android:layout_height="wrap_content"
                android:layout_marginStart="40dp"
                android:background="@drawable/back_button_bg"
                android:letterSpacing="0.1"
                android:text="@string/back"
                android:textSize="20sp"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintStart_toStartOf="parent" />

            <Button
                android:id="@+id/register_bt"
                android:layout_width="130dp"
                android:layout_height="wrap_content"
                android:layout_marginEnd="40dp"
                android:background="@drawable/login_button_bg"
                android:letterSpacing="0.1"
                android:text="@string/register"
                android:textColor="@color/white"
                android:textSize="20sp"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent" />

        </androidx.constraintlayout.widget.ConstraintLayout>

        <EditText
            android:id="@+id/account2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"

            android:layout_marginStart="30dp"
            android:layout_marginEnd="30dp"
            android:layout_marginBottom="230dp"
            android:background="@drawable/input_bd"

            android:hint="@string/hint_username"
            android:imeOptions="actionNext"
            android:inputType="text"
            android:paddingStart="60dp"
            android:paddingTop="5dp"

```

```
        android:paddingEnd="10dp"
        android:paddingBottom="10dp"
        android:textColor="#3A3A3A"
        android:textColorHint="#A1A1A1"
        android:textSize="25sp"
        app:layout_constraintBottom_toTopOf="@id/bottom_bt"
```

```
    />
```

```
<View
```

```
    android:id="@+id/boundary1"
    android:layout_width="match_parent"
    android:layout_height="1dp"
    android:layout_marginStart="30dp"
    android:layout_marginTop="1dp"
    android:layout_marginEnd="30dp"
    android:background="#A1A1A1"
    app:layout_constraintTop_toBottomOf="@id/account2" />
```

```
<ImageView
```

```
    android:layout_width="30dp"
    android:layout_height="30dp"
    android:layout_marginStart="10dp"
    android:layout_marginBottom="10dp"
    android:contentDescription="phone_number"
    android:src="@drawable/account1"
    app:layout_constraintBottom_toBottomOf="@id/account2"
    app:layout_constraintStart_toStartOf="@id/account2"
    app:tint="@color/hint" />
```

```
<EditText
```

```
    android:id="@+id/code"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

    android:layout_marginStart="30dp"
    android:layout_marginTop="30dp"
    android:layout_marginEnd="30dp"
    android:background="@drawable/input_bd"
```

```
    android:hint="@string/hint_password"
    android:imeOptions="actionNext"
    android:inputType="textPassword"
    android:paddingStart="60dp"
    android:paddingTop="5dp"
```

```
    android:paddingEnd="70dp"
    android:paddingBottom="10dp"
    android:textColor="#3A3A3A"
    android:textColorHint="#A1A1A1"
    android:textSize="25sp"
    app:layout_constraintTop_toBottomOf="@id/account2"
```

```
    />
```

```
<View
```

```
    android:id="@+id/boundary3"
    android:layout_width="match_parent"
    android:layout_height="1dp"
    android:layout_marginStart="30dp"
    android:layout_marginTop="1dp"
    android:layout_marginEnd="30dp"
    android:background="#A1A1A1"
    app:layout_constraintTop_toBottomOf="@id/code" />
```

```

<ImageView
    android:layout_width="30dp"
    android:layout_height="30dp"
    android:layout_marginStart="10dp"
    android:layout_marginBottom="12dp"
    android:contentDescription="code"
    android:src="@drawable/password2"
    app:layout_constraintBottom_toBottomOf="@id/code"
    app:layout_constraintStart_toStartOf="@id/code"
    app:tint="@color/hint" />

<ImageView
    android:id="@+id/code_vis"
    android:layout_width="30dp"
    android:layout_height="30dp"
    android:layout_marginEnd="15dp"
    android:layout_marginBottom="12dp"
    android:contentDescription="code"
    android:src="@drawable/invisible"
    app:layout_constraintBottom_toBottomOf="@id/code"
    app:layout_constraintEnd_toEndOf="@id/code"
    app:tint="@color/hint"
    android:clickable="true"
    android:focusable="true"/>

<EditText
    android:id="@+id/code_again"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

    android:layout_marginStart="30dp"
    android:layout_marginTop="30dp"
    android:layout_marginEnd="30dp"
    android:background="@drawable/input_bd"

    android:hint="@string/password_again"
    android:imeOptions="actionNext"
    android:inputType="textPassword"
    android:paddingStart="60dp"
    android:paddingTop="5dp"

    android:paddingEnd="70dp"
    android:paddingBottom="10dp"
    android:textColor="#3A3A3A"
    android:textColorHint="#A1A1A1"
    android:textSize="25sp"
    app:layout_constraintTop_toBottomOf="@id/code"

/>

<View
    android:id="@+id/boundary4"
    android:layout_width="match_parent"
    android:layout_height="1dp"
    android:layout_marginStart="30dp"
    android:layout_marginTop="1dp"
    android:layout_marginEnd="30dp"
    android:background="#A1A1A1"
    app:layout_constraintTop_toBottomOf="@id/code_again" />

<ImageView
    android:layout_width="30dp"
    android:layout_height="30dp"
    android:layout_marginStart="10dp"
    android:layout_marginBottom="12dp"
    android:contentDescription="code_again"

```

```

        android:src="@drawable/password"
        app:layout_constraintBottom_toBottomOf="@id/code_again"
        app:layout_constraintStart_toStartOf="@id/code_again"
        app:tint="@color/hint" />
<ImageView
    android:id="@+id/code_again_vis"
    android:layout_width="30dp"
    android:layout_height="30dp"
    android:layout_marginEnd="15dp"
    android:layout_marginBottom="12dp"
    android:contentDescription="code"
    android:src="@drawable/invisible"
    app:layout_constraintBottom_toBottomOf="@id/code_again"
    app:layout_constraintEnd_toEndOf="@id/code_again"
    app:tint="@color/hint"
    android:clickable="true"
    android:focusable="true"/>
</androidx.constraintlayout.widget.ConstraintLayout>

<com.example.login_page.WaveView2
    android:layout_width="match_parent"
    android:layout_height="140dp"
    app:layout_constraintTop_toTopOf="parent"
    android:layout_marginBottom="5dp"
    android:rotation="180"

/>

<com.example.login_page.WaveView
    android:id="@+id/wave"
    android:layout_width="match_parent"
    android:layout_height="160dp"
    app:layout_constraintTop_toTopOf="parent"
    android:rotation="180"
/>

<TextView
    android:id="@+id/register_title"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    app:layout_constraintTop_toBottomOf="@id/wave"
    android:text="register"
    android:gravity="center"
    android:textColor="#ffffff"
    android:textSize="20sp"
    android:textStyle="bold"
    android:layout_marginTop="-70dp"
/>

</androidx.constraintlayout.widget.ConstraintLayout>

```

3、开场动画布局文件 activity_resume.xml

```

<?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=".resume">

    <TextView
        android:id="@+id/resume_title"
        android:layout_width="wrap_content"

```

```

        android:layout_height="wrap_content"
        android:text="TeamUp"
        android:textColor="#4586F0"
        android:includeFontPadding="false"
        android:textSize="53sp"
        android:textStyle="bold"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
    />

</androidx.constraintlayout.widget.ConstraintLayout>

```

4、登录成功布局文件 activity_success.xml

```

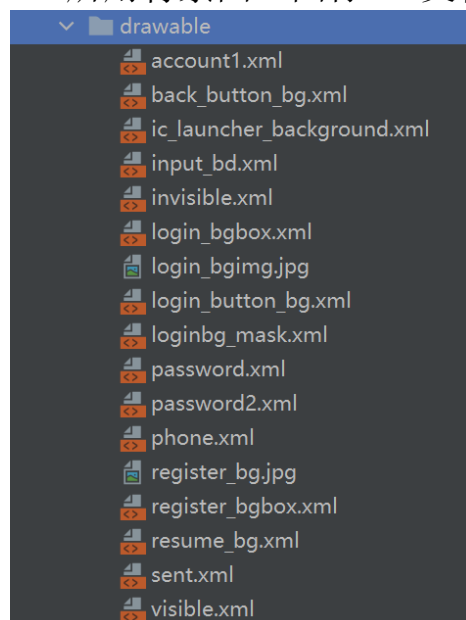
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.example.login_homework.success">

    <TextView
        android:id="@+id/resume_title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/success"
        android:textColor="#4586F0"
        android:includeFontPadding="false"
        android:textSize="53sp"
        android:textStyle="bold"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
    />

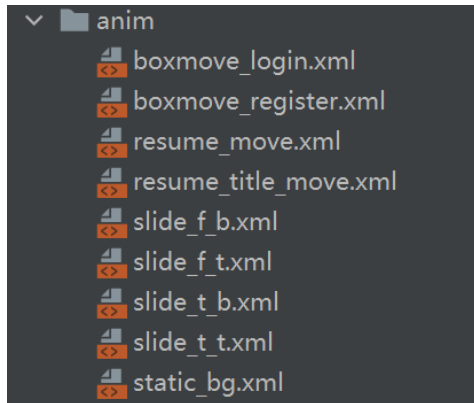
</androidx.constraintlayout.widget.ConstraintLayout>

```

5、所用背景图、图标xml文件



6、所用动画xml文件



7、中英文string.xml

```
<resources>
    <string name="app_name">login_homework</string>
    <string name="hint_username">Username</string>
    <string name="hint_password">Password</string>
    <string name="password_again">Confirm password</string>
    <string name="login">Login</string>
    <string name="register">Register</string>
    <string name="preview">Preview now</string>
    <string name="back">Back</string>
    <string name="success">Success</string>
    <string name="rest_chance">remaining chances: </string>
</resources>
```

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">login_homework</string>
    <string name="hint_username">用户名</string>
    <string name="hint_password">密码</string>
    <string name="password_again">确认密码</string>
    <string name="login">登录</string>
    <string name="register">注册</string>
    <string name="preview">游客入口</string>
    <string name="back">返回</string>
    <string name="success">成功</string>
    <string name="rest_chance">剩余次数: </string>
</resources>
```

8、登录页面kotlin文件 MainActivity.kt

```
package com.example.login_homework

import android.annotation.SuppressLint
import android.content.Intent
import android.graphics.Typeface
import android.os.Bundle
import android.text.method.HideReturnsTransformationMethod
import android.text.method.PasswordTransformationMethod
```



```

import android.view.View
import android.view.animation.AnimationUtils
import android.widget.Button
import android.widget.EditText
import android.widget.ImageView
import android.widget.TextView
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

//import com.example.login_homework.R

class MainActivity : AppCompatActivity() {
    @SuppressWarnings("MissingInflatedId")
    private var account_map= mutableMapOf<String,String>()
    private var rest_chance=5

    @SuppressWarnings("SetTextI18n", "CutPasteId")
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        var bundle: Bundle? =intent.extras
        var temp_account= bundle?.getString("account")
        var temp_password= bundle?.getString("password")
        if (temp_account != null && temp_password != null) {

            account_map.put(temp_account,temp_password)

        }
        var
rest_string=findViewById<TextView>(R.id.rest_chance).text.toString()

        findViewById<TextView>(R.id.rest_chance).text=
rest_string+rest_chance.toString()

        //改字体
        var appname = findViewById<TextView>(R.id.appname)
        var face=Typeface.createFromAsset(assets,"Boleh.ttf")
        appname.setTypeface(face)

        var weic = findViewById<TextView>(R.id.welc)
        face=Typeface.createFromAsset(assets,"Jackpot.ttf")
        weic.setTypeface(face)

        var login_btn = findViewById<TextView>(R.id.login_btn)
        face=Typeface.createFromAsset(assets,"Lemon Days.ttf")
        login_btn.setTypeface(face)

        //密码是否可见
        var judge1:Boolean=false
        var code_vis: ImageView =findViewById<ImageView>(R.id.password_vis)
        var code_edit: EditText =findViewById<EditText>(R.id.password)
        code_vis.setOnClickListener{
            if (judge1==false) {
                code_vis.setImageResource(R.drawable.visible)
                code_edit.transformationMethod=
HideReturnsTransformationMethod.getInstance()

            }
            else{
                code_vis.setImageResource(R.drawable.invisible)
                code_edit.transformationMethod =
PasswordTransformationMethod.getInstance()
            }
            code_edit.setSelection(code_edit.text.length)

```

```

        judge1=!judge1
    }

    //背景移动

    findViewById<View>(R.id.login_move_box).startAnimation(AnimationUtils.loadAn
    imation(
        applicationContext,R.anim.boxmove_login
    ))

    //前往注册
    findViewById<TextView>(R.id.register).setOnClickListener {

        val intent1= Intent(this,register_activity::class.java) //用于跳转
        startActivity(intent1)
        overridePendingTransition(R.anim.slide_f_t,R.anim.slide_t_b)
        finish()
    }

    //游客入口
    findViewById<TextView>(R.id.preview).setOnClickListener {

        val intent1= Intent(this,succes::class.java) //用于跳转
        startActivity(intent1)
        overridePendingTransition(R.anim.slide_f_b,R.anim.slide_t_t)
        finish()
    }

    findViewById<Button>(R.id.login_btn).setOnClickListener{
        var
        temp_account_input=findViewById<EditText>(R.id.account).text.toString()
        var
        temp_password_input=findViewById<EditText>(R.id.password).text.toString()

        if(rest_chance>0){
            if(temp_account_input==" " || temp_password_input==""){
                Toast.makeText(this,"请先输入完整信息
                ",Toast.LENGTH_SHORT).show()
                rest_chance--
            }
            else{
                var temp_password_get:String=
                account_map.getDefault(temp_account_input,"-1")
                if(temp_password_get=="-1" ){
                    Toast.makeText(this,"用户不存在，请先注册
                    ",Toast.LENGTH_SHORT).show()
                    rest_chance--
                }
                else if(temp_password_get!=temp_password_input){
                    Toast.makeText(this,"密码错误",Toast.LENGTH_SHORT).show()
                    rest_chance--
                }
            }
            else{
                Toast.makeText(this,"登录成功",Toast.LENGTH_SHORT).show()
                startActivity(Intent(this,succes::class.java))
                finish()
            }
        }
    }
}

```

```

        else{
            Toast.makeText(this,"剩余尝试次数为 0，请退出重试",Toast.LENGTH_LONG).show()

        }

        findViewById<TextView>(R.id.rest_chance).text=rest_string+rest_chance.toString()

    }

}

}

```

9、注册页面kotlin文件 register_activity.kt

```

package com.example.login_homework

import android.annotation.SuppressLint
import android.content.Intent
import android.graphics.Typeface
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.text.method.HideReturnsTransformationMethod
import android.text.method.PasswordTransformationMethod
import android.view.View
import android.view.animation.AnimationUtils
import android.widget.*

class register_activity : AppCompatActivity() {
    @SuppressLint("MissingInflatedId")

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_register)

        var register_t= findViewById<TextView>(R.id.register_title)
        var face= Typeface.createFromAsset(assets,"Jackpot.ttf")
        register_t.setTypeface(face)

        var back_bt = findViewById<TextView>(R.id.back_bt)
        face=Typeface.createFromAsset(assets,"Lemon Days.ttf")
        back_bt.setTypeface(face)

        var register_bt = findViewById<TextView>(R.id.register_bt)
        face=Typeface.createFromAsset(assets,"Lemon Days.ttf")
        register_bt.setTypeface(face)

        //背景移动
        findViewById<View>(R.id.register_move_box).startAnimation(
            AnimationUtils.loadAnimation(
                applicationContext,R.anim.boxmove_register
            ))

        //密码是否可见
        var judge1:Boolean=false
        var code_vis:ImageView=findViewById<ImageView>(R.id.code_vis)
        var code_edit:EditText=findViewById<EditText>(R.id.code)
        code_vis.setOnClickListener{

```

```

        if (judge1 == false) {
            code_vis.setImageResource(R.drawable.visible)

code_edit.transformationMethod=HideReturnsTransformationMethod.getInstance()

        }
        else{
            code_vis.setImageResource(R.drawable.invisible)
            code_edit.transformationMethod =
PasswordTransformationMethod.getInstance()
        }
        code_edit.setSelection(code_edit.text.length)
        judge1=!judge1
    }

    var judge2:Boolean=false
    var
code_again_vis:ImageView=findViewById<ImageView>(R.id.code_again_vis)
    var code_again_edit:EditText=findViewById<EditText>(R.id.code_again)
    code_again_vis.setOnClickListener{
        if (judge2 == false) {
            code_again_vis.setImageResource(R.drawable.visible)

code_again_edit.transformationMethod=HideReturnsTransformationMethod.getInst
ance()
        }
        else{
            code_again_vis.setImageResource(R.drawable.invisible)
            code_again_edit.transformationMethod =
PasswordTransformationMethod.getInstance()

        }
        code_again_edit.setSelection(code_again_edit.text.length)
        judge2=!judge2
    }

    //返回
    findViewById<Button>(R.id.back_bt).setOnClickListener {
        onBackPressed()
        finish()
    }

    findViewById<Button>(R.id.register_bt).setOnClickListener {
        var
temp_account_input=findViewById<EditText>(R.id.account2).text.toString()
        var
temp_code_input=findViewById<EditText>(R.id.code).text.toString()
        var
temp_code_again_input=findViewById<EditText>(R.id.code_again).text.toString(
)

        if (temp_account_input == "" ||
temp_code_input == "" || temp_code_again_input == "") {
            Toast.makeText(this, "请先输入完整信息",
Toast.LENGTH_SHORT).show()

        }
        else if (temp_code_input != temp_code_again_input) {
            Toast.makeText(this, "两次密码输入不一样
", Toast.LENGTH_SHORT).show()

        }
    }

```

```

        else{
            val intent1= Intent(this,success::class.java) //用于跳转
            var bundle: Bundle=Bundle()
            bundle.putCharSequence("account",temp_account_input)
            bundle.putCharSequence("password",temp_code_input)

            intent1.putExtras(bundle)
            startActivity(intent1)
            finish()

            Toast.makeText(this,"注册成功",Toast.LENGTH_SHORT).show()

        }

    }

}

override fun onBackPressed() {
    super.onBackPressed()

    val intent1= Intent(this,MainActivity::class.java) //用于跳转
    startActivity(intent1)

    overridePendingTransition(R.anim.slide_f_b,R.anim.slide_t_t)

}
}

```

10、开场动画kotlin文件 resume.kt

```

package com.example.login_homework

import android.annotation.SuppressLint
import android.content.Intent
import android.graphics.Typeface
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.os.Handler
import android.view.animation.Animation
import android.view.animation.AnimationUtils
import android.view.animation.TranslateAnimation
import android.widget.TextView

class resume : AppCompatActivity() {

    private val handler=Handler()
    @SuppressLint("MissingInflatedId")
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_resume)

        var resume_title = findViewById<TextView>(R.id.resume_title)
        var face= Typeface.createFromAsset(assets,"Boleh.ttf")
        resume_title.setTypeface(face)

        findViewById<TextView>(R.id.resume_title).startAnimation(
            AnimationUtils.loadAnimation(
                applicationContext,R.anim.resume_title_move
            ))
    }
}

```

```

    }

    private val runnable= Runnable {
        if(!isFinishing){
            val intent1= Intent(this,MainActivity::class.java) //用于跳转
            startActivity(intent1)
            overridePendingTransition(R.anim.static_bg,R.anim.resume_move)
            finish()
        }
    }

    override fun onResume() {
        super.onResume()
        handler.postDelayed(runnable,2000)
    }

    override fun onPause() {
        super.onPause()
        handler.removeCallbacks(runnable)
    }
}

```

11、成功登录kotlin文件 success.kt

```

package com.example.login_homework

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle

class success : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_success)
    }
}

```

12、波浪动画kotlin文件 wave.kt

```

package com.example.login_page

import android.animation.ValueAnimator
import android.content.Context
import android.graphics.Canvas
import android.graphics.Color
import android.graphics.Paint
import android.graphics.Path
import android.util.AttributeSet
import android.view.View
import android.view.animation.LinearInterpolator

class WaveView(context: Context?, attrs: AttributeSet?) :
    View(context, attrs) {
    private var width = 0
    private var height = 0
    private var baseLine = 0 // 基线，用于控制水位上涨的，这里是写死了没动，你可以不断的设置改变。
    private var mPaint: Paint? = null
    private val waveHeight = 130 // 波浪的最高度
    private var waveWidth //波长
        = 0
}

```

```

private var offset = 0f //偏移量

init {
    initView()
}

/**
 * 不断的更新偏移量，并且循环。
 */
private fun updateXControl() {
    //设置一个波长的偏移
    val mAnimator = ValueAnimator.ofFloat(0f, waveWidth.toFloat())
    mAnimator.interpolator = LinearInterpolator()
    mAnimator.addUpdateListener { animation ->
        val animatorValue = animation.animatedValue as Float
        offset = animatorValue //不断的设置偏移量，并重画
        postInvalidate()
    }
    mAnimator.duration = 7000
    mAnimator.startDelay = -1000
    mAnimator.repeatCount = ValueAnimator.INFINITE
    mAnimator.start()
}

override fun onDraw(canvas: Canvas) {
    super.onDraw(canvas)
    canvas.drawPath(path, mPaint!!)
}

//初始化 paint
private fun initView() {
    mPaint = Paint()
    mPaint!!.color = Color.parseColor("#4586F0")
    mPaint!!.style = Paint.Style.FILL
}

override fun onLayout(changed: Boolean, left: Int, top: Int, right: Int,
bottom: Int) {
    super.onLayout(changed, left, top, right, bottom)
    width = measuredWidth //获取屏幕宽度
    height = measuredHeight //获取屏幕高度
    waveWidth = width
    baseLine = height / 2
    updateXControl()
} //结束点的 y
//只需要处理完半个波长，剩下的有 for 循环自己就添加了。
//下面这三句话很重要，它是形成了一封闭区间，让曲线以下的面积填充一种颜色，大家可以把这
3 句话注释了看看效果。
//控制点的 X，(起始点 X + itemWidth/2 + offset)
//控制点的 y
//结束点的 x
//半个波长
//起始坐标
//核心的代码就是这里
/**
 * 核心代码，计算 path
 * @return
 */
private val path: Path
private get() {
    val itemWidth = waveWidth / 2 //半个波长
    val mPath = Path()
    mPath.moveTo((-itemWidth * 3).toFloat(), baseLine.toFloat()) //起
始坐标

```

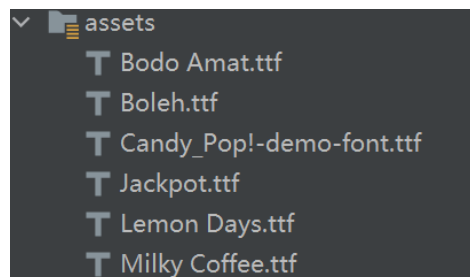
```

//核心的代码就是这里
for (i in -3..1) {
    val startX = i * itemWidth
    mPath.quadTo(
        startX + itemWidth / 2 + offset, //控制点的 X, (起始点 X +
itemWidth/2 + offset)
        getWaveHeigh(i).toFloat(), //控制点的 Y
        startX + itemWidth + offset, //结束点的 X
        baseLine //结束点的 Y
        .toFloat()
    ) //只需要处理完半个波长, 剩下的有 for 循环自己就添加了。
}
//下面这三句话很重要, 它是形成了一封闭区间, 让曲线以下的面积填充一种颜色, 大家
可以把这 3 句话注释了看看效果。
mPath.lineTo(width.toFloat(), height.toFloat())
mPath.lineTo(0f, height.toFloat())
mPath.close()
return mPath
}

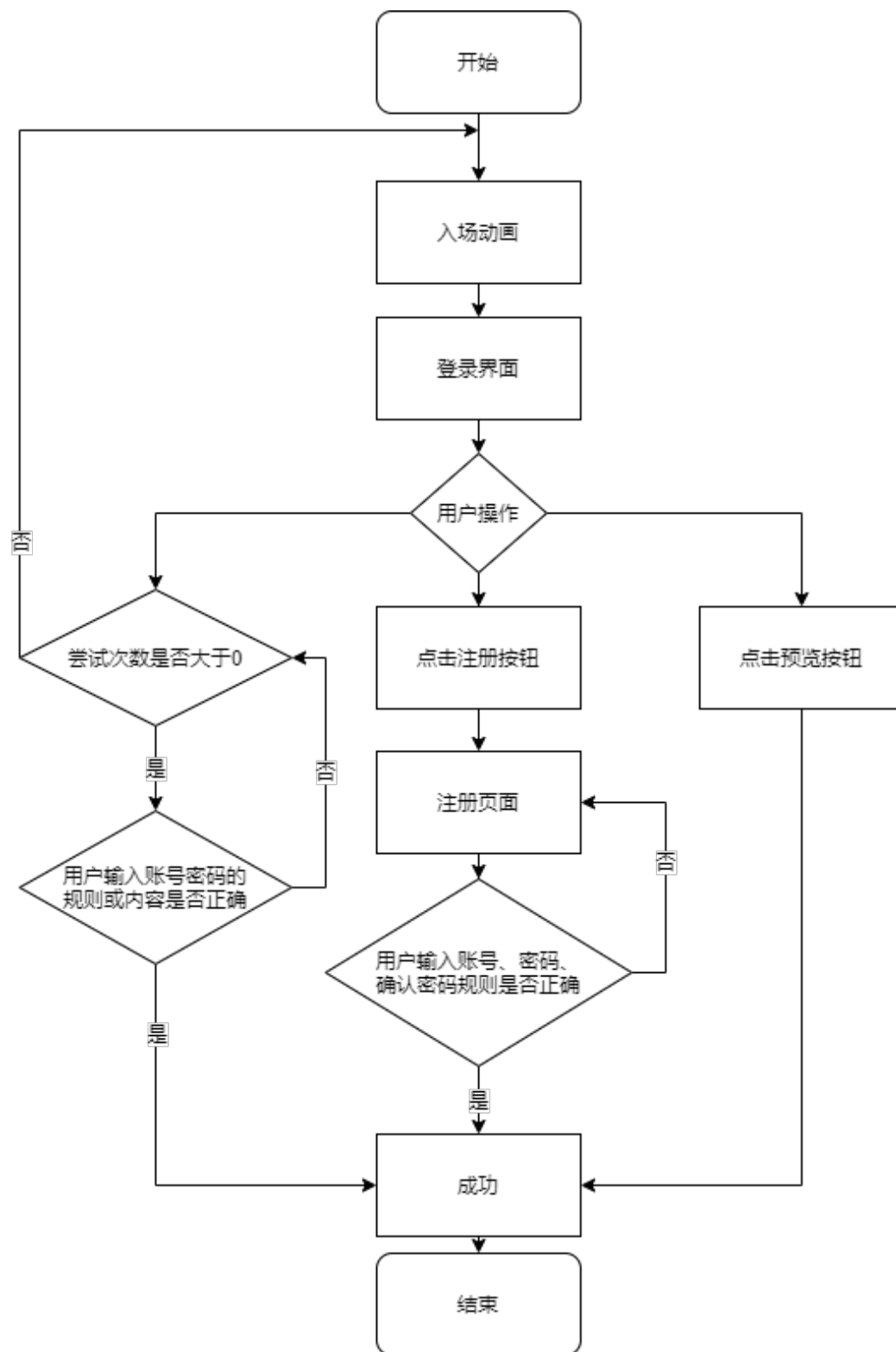
//奇数峰值是正的, 偶数峰值是负数
private fun getWaveHeigh(num: Int): Int {
    return if (num % 2 == 0) {
        baseLine + waveHeight
    } else baseLine - waveHeight
}
}

```

13、字体文件



五、软件操作流程



六、难点（或遇到的问题）和解决方案

1、页面跳转过渡动画，控件移动动画的实现

解决方案：

动画文件使用在xml文件的set标签中通过translate、alpha、scale、rotate等标签进行动画的设置，然后页面之间切换的动画通过overridePendingTransition函数调用，控件的动画通过startAnimation(AnimationUtils.loadAnimation())函数调用。

2、如何修改字体样式

解决方案：

使用Typeface.createFromAsset与setTypeface等函数

```
var appname = findViewById<TextView>(R.id.appname)
var face=Typeface.createFromAsset(assets,"Boleh.ttf")
appname.setTypeface(face)
```

3、密码可见与否按钮的实现

解决方案：

准备两个图标表示密码可见与否，并设置一个布尔变量，每次点击控件时切换图标，布尔变量取反，同时将对编辑框EditText的transformationMethod属性设置为隐藏密码的HideReturnsTransformationMethod.getInstance()或可见密码的PasswordTransformationMethod.getInstance()

八、不足之处

该登录注册界面未将用户注册的账号密码真正保存在数据库中。未对用户注册时的账号或密码进行规则（只含大小写字母、数字等）判断。

九、今后的设想

学习如何在Android开发中连接数据库，同时在注册页面增加对账号与密码的规则判断，同时继续完善页面的布局与动效。