# ChatAPP

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import androidx.recyclerview.widget.LinearLayoutManager**

**+ import androidx.recyclerview.widget.RecyclerView**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ // 消息队列**

**+ val dataMsgList = ArrayList<Msg>()**

**+ // recyclerview视图**

**+ lateinit var recyclerView: RecyclerView**

**+ var adapter: MsgAdapter? = null**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

- ) {

- Greeting("Android")

- }

- }

- }

**+ setContentView(R.layout.activity\_main)**

**+ // 初始化数据列表**

**+ dataMsgList.add(Msg("Hello", Msg.TYPE\_RECEIVE, R.drawable.face\_2))**

**+ dataMsgList.add(Msg("你好",Msg.TYPE\_SENT, R.drawable.face\_3))**

**+ dataMsgList.add(Msg("再见", Msg.TYPE\_RECEIVE, R.drawable.face\_2))**

**+ // 使用转换器Adapter生成recyclerview的对象**

**+ adapter = MsgAdapter(dataMsgList)**

**+ recyclerView = findViewById(R.id.recyclerView)**

**+ val layoutManager = LinearLayoutManager(this)**

**+ recyclerView.layoutManager = layoutManager**

**+ recyclerView.adapter = adapter**

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\java\com\example\myapplication\Msg.kt**

**+ package com.example.myapplication**

**+**

**+ data class Msg(**

**+ val content: String,**

**+ val type: Int,**

**+ val friendId: Int,**

**+ ) {**

**+ companion object {**

**+ const val TYPE\_SENT = 0**

**+ const val TYPE\_RECEIVE =1**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\myapplication\MsgAdapter.kt**

**+ package com.example.myapplication**

**+**

**+ import android.view.LayoutInflater**

**+ import android.view.View**

**+ import android.view.ViewGroup**

**+ import android.widget.ImageView**

**+ import android.widget.TextView**

**+ import androidx.recyclerview.widget.RecyclerView**

**+**

**+ class MsgAdapter(val msgList: List<Msg>):**

**+ RecyclerView.Adapter<RecyclerView.ViewHolder>(){**

**+**

**+ inner class LeftViewHolder(view: View):**

**+ RecyclerView.ViewHolder(view) {**

**+ val friendFace: ImageView = view.findViewById(R.id.friend\_face\_msg\_item)**

**+ val content: TextView = view.findViewById(R.id.msg\_text\_left)**

**+ }**

**+**

**+ inner class RightViewHolder(view: View):**

**+ RecyclerView.ViewHolder(view){**

**+ val myFace: ImageView = view.findViewById(R.id.my\_face\_msg\_item)**

**+ val content: TextView = view.findViewById(R.id.msg\_text\_right)**

**+ }**

**+**

**+ // 用于判断使用的view holder类型**

**+ // 用于多类别数据显示**

**+ override fun getItemViewType(position: Int): Int {**

**+ val msg = msgList[position]**

**+ return msg.type**

**+ }**

**+**

**+**

**+ override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): RecyclerView.ViewHolder {**

**+ if (viewType == Msg.TYPE\_RECEIVE) {**

**+ val view = LayoutInflater.from(parent.context).inflate(R.layout.msg\_text\_left\_item, parent, false)**

**+ return LeftViewHolder(view)**

**+ } else {**

**+ val view = LayoutInflater.from(parent.context).inflate(R.layout.msg\_text\_right\_item, parent, false)**

**+ return RightViewHolder(view)**

**+ }**

**+ }**

**+**

**+ override fun getItemCount() = msgList.size**

**+**

**+ override fun onBindViewHolder(holder: RecyclerView.ViewHolder, position: Int) {**

**+ val msg = msgList[position]**

**+ if (holder is LeftViewHolder) {**

**+ holder.friendFace.setImageResource(msg.friendId)**

**+ holder.content.text = msg.content**

**+ } else if (holder is RightViewHolder) {**

**+ holder.myFace.setImageResource(msg.friendId)**

**+ holder.content.text = msg.content**

**+ } else {**

**+ throw java.lang.IllegalArgumentException()**

**+ }**

**+ }**

**+ }**

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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"**

**+ tools:context=".MainActivity">**

**+**

**+ <androidx.recyclerview.widget.RecyclerView**

**+ android:id="@+id/recyclerView"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="match\_parent"/>**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\msg\_text\_left\_item.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content">**

**+ <ImageView**

**+ android:id="@+id/friend\_face\_msg\_item"**

**+ android:src="@drawable/face\_1"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_marginStart="20dp"**

**+ android:layout\_width="70dp"**

**+ android:layout\_height="70dp" />**

**+ <!-- 聊天气泡框 -->**

**+ <LinearLayout**

**+ android:background="@drawable/message\_left"**

**+ android:layout\_marginTop="15dp"**

**+ android:layout\_marginEnd="15dp"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content" >**

**+ <TextView**

**+ android:id="@+id/msg\_text\_left"**

**+ android:text="hellohellohellohellohellohellohello"**

**+ android:textSize="20sp"**

**+ android:textColor="#FFF"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content" />**

**+**

**+ </LinearLayout>**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\msg\_text\_right\_item.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content">**

**+**

**+ <!-- 聊天气泡框 -->**

**+ <LinearLayout**

**+ android:background="@drawable/message\_right"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="wrap\_content" >**

**+ <TextView**

**+ android:id="@+id/msg\_text\_right"**

**+ android:text="hellohelloh"**

**+ android:textSize="20sp"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content" />**

**+**

**+ </LinearLayout>**

**+**

**+ <ImageView**

**+ android:id="@+id/my\_face\_msg\_item"**

**+ android:src="@drawable/face\_1"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_width="70dp"**

**+ android:layout\_height="70dp" />**

**+**

**+ </LinearLayout>**

# DemoLinearLayout20250325

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import android.view.View**

**+ import android.widget.Button**

**+ import android.widget.ImageView**

**+ import android.widget.LinearLayout**

**+ import android.widget.TextView**

**+ import android.widget.Toast**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ // 生成Monster数据**

**+ private val monsterList = mutableListOf(**

**+ Monster("火焰龙", 2600, R.drawable.ic\_launcher\_background),**

**+ Monster("雷电虎", 2400,R.drawable.ic\_launcher\_foreground),**

**+ Monster("冰龙", 2200,R.drawable.ic\_launcher\_foreground),**

**+ )**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

- ) {

- Greeting("Android")

- }

**+ setContentView(R.layout.activity\_main)**

**+**

**+ // 获取框架**

**+ val container:LinearLayout = findViewById(R.id.monsterContainer)**

**+ // 循环添加monster到container中**

**+ monsterList.forEach { monster ->**

**+ // 获取monster模板**

**+ val card = layoutInflater.inflate(R.layout.monster\_card, container,false)**

**+**

**+ val image: ImageView = card.findViewById(R.id.monsterImage)**

**+ val name: TextView = card.findViewById(R.id.monsterName)**

**+ val power: TextView = card.findViewById(R.id.monsterPower)**

**+ val result: TextView = card.findViewById(R.id.result)**

**+ val button: Button = card.findViewById(R.id.challengeBtn)**

**+**

**+ name.text = monster.name**

**+ power.text = monster.power.toString()**

**+ button.setOnClickListener {**

**+ val content = if(monster.power > 2500) "你输了" else "你赢了"**

**+ result.text = content**

**+ result.visibility = View.VISIBLE**

**+ Toast.makeText(this, content, Toast.LENGTH\_SHORT).show()**

}

**+ container.addView(card)**

**+**

}

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\java\com\example\myapplication\Monster.kt**

**+ package com.example.myapplication**

**+**

**+ data class Monster(**

**+ val name:String,**

**+ val power:Int,**

**+ val imageRes: Int**

**+ )**

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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"**

**+ tools:context=".MainActivity">**

**+**

**+ <ScrollView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="match\_parent">**

**+ <LinearLayout**

**+ android:id="@+id/monsterContainer"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="match\_parent"**

**+ android:orientation="vertical"**

**+ android:padding="16dp" />**

**+ </ScrollView>**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\monster\_card.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:orientation="horizontal"**

**+ android:background="@android:drawable/dialog\_holo\_light\_frame"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content">**

**+ <ImageView**

**+ android:id="@+id/monsterImage"**

**+ android:layout\_width="80dp"**

**+ android:layout\_height="80dp"**

**+ android:src="@drawable/ic\_launcher\_foreground" />**

**+ <LinearLayout**

**+ android:orientation="vertical"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="wrap\_content">**

**+ <TextView**

**+ android:id="@+id/monsterName"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"**

**+ android:textSize="18sp"**

**+ android:textStyle="bold" />**

**+ <TextView**

**+ android:id="@+id/monsterPower"**

**+ android:textSize="14sp"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content" />**

**+ <Button**

**+ android:id="@+id/challengeBtn"**

**+ android:text="挑战"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"/>**

**+ <TextView**

**+ android:id="@+id/result"**

**+ android:visibility="gone"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"/>**

**+ </LinearLayout>**

**+**

**+**

**+ </LinearLayout>**

# FriendList

**新增 app\src\main\java\com\example\myapplication\Friend.kt**

**+ package com.example.myapplication**

**+**

**+ data class Friend(**

**+ val id: Int,**

**+ val name: String,**

**+ val faceId: Int**

**+ ) {**

**+ }**

**新增 app\src\main\java\com\example\myapplication\FriendAdapter.kt**

**+ package com.example.myapplication**

**+**

**+ import android.text.Layout**

**+ import android.view.LayoutInflater**

**+ import android.view.View**

**+ import android.view.ViewGroup**

**+ import android.widget.ImageView**

**+ import android.widget.TextView**

**+ import androidx.recyclerview.widget.RecyclerView**

**+**

**+ class FriendAdapter(val friendList: List<Friend>):**

**+ RecyclerView.Adapter<FriendAdapter.ViewHolder>(){**

**+ inner class ViewHolder(view: View):**

**+ RecyclerView.ViewHolder(view){**

**+ val friendName: TextView = view.findViewById(R.id.friendName)**

**+ val friendFace: ImageView = view.findViewById(R.id.friendFace)**

**+ }**

**+**

**+ // 这里找item视图，创建一个view holder。**

**+ override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): ViewHolder {**

**+ val view = LayoutInflater.from(parent.context).inflate(R.layout.friend\_item, parent, false)**

**+ return ViewHolder(view)**

**+ }**

**+**

**+ override fun getItemCount() = friendList.size**

**+**

**+ // 根据创建的view holder，将指定数据显示在item模板之中**

**+ override fun onBindViewHolder(holder: ViewHolder, position: Int) {**

**+ val friend = friendList[position]**

**+ holder.friendName.text = friend.name**

**+ holder.friendFace.setImageResource(friend.faceId)**

**+ }**

**+ }**

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import androidx.recyclerview.widget.LinearLayoutManager**

**+ import androidx.recyclerview.widget.RecyclerView**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ private val friendList = ArrayList<Friend>()**

**+ private var adapter: FriendAdapter? = null**

**+ private lateinit var recyclerView: RecyclerView**

**+**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

- ) {

- Greeting("Android")

- }

- }

- }

**+ setContentView(R.layout.activity\_main)**

**+ friendList.add(Friend(0,"John", R.drawable.face\_1))**

**+ friendList.add(Friend(1,"Tom", R.drawable.face\_2))**

**+ friendList.add(Friend(2,"张三", R.drawable.face\_3))**

**+**

**+ recyclerView = findViewById(R.id.friendList)**

**+ val layoutManager = LinearLayoutManager(this)**

**+ recyclerView.layoutManager = layoutManager**

**+ adapter = FriendAdapter(friendList)**

**+ recyclerView.adapter = adapter**

**+**

**+**

**+**

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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"**

**+ tools:context=".MainActivity">**

**+**

**+ <!-- recyclerView控件-->**

**+ <!-- item视图（朋友列表模板） -->**

**+ <!-- data class -->**

**+ <!-- adapter!!! -->**

**+ <!-- 视图对应Activity中配置-->**

**+ <androidx.recyclerview.widget.RecyclerView**

**+ android:id="@+id/friendList"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="match\_parent" />**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\friend\_item.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:orientation="horizontal"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="60dp">**

**+ <!-- 左侧是朋友头像，右侧是朋友昵称-->**

**+ <ImageView**

**+ android:id="@+id/friendFace"**

**+ android:src="@drawable/face\_1"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_marginStart="5dp"**

**+ android:layout\_width="50dp"**

**+ android:layout\_height="50dp"/>**

**+ <!-- 朋友昵称 -->**

**+ <TextView**

**+ android:id="@+id/friendName"**

**+ android:text="John"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_marginStart="20dp"**

**+ android:textSize="20sp"**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"/>**

**+**

**+**

**+ </LinearLayout>**

# HappyChat

**修改 app\build.gradle**

plugins {

id 'com.android.application'

id 'org.jetbrains.kotlin.android'

}

android {

- namespace 'com.example.myapplication'

**+ namespace 'com.example.happychat'**

compileSdk 33

defaultConfig {

- applicationId "com.example.myapplication"

**+ applicationId "com.example.happychat"**

minSdk 24

targetSdk 33

versionCode 1

versionName "1.0"

testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"

}

buildTypes {

release {

minifyEnabled false

proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-rules.pro'

}

}

compileOptions {

sourceCompatibility JavaVersion.VERSION\_1\_8

targetCompatibility JavaVersion.VERSION\_1\_8

}

kotlinOptions {

jvmTarget = '1.8'

}

}

dependencies {

implementation 'androidx.core:core-ktx:1.7.0'

implementation 'androidx.appcompat:appcompat:1.4.1'

implementation 'com.google.android.material:material:1.5.0'

implementation 'androidx.constraintlayout:constraintlayout:2.1.3'

testImplementation 'junit:junit:4.13.2'

androidTestImplementation 'androidx.test.ext:junit:1.1.3'

androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'

}

**新增 app\src\main\java\com\example\happychat\ChatActivity.kt**

**+ package com.example.happychat**

**+**

**+ import androidx.appcompat.app.AppCompatActivity**

**+ import android.os.Bundle**

**+ import android.widget.TextView**

**+**

**+ class ChatActivity : AppCompatActivity() {**

**+ override fun onCreate(savedInstanceState: Bundle?) {**

**+ super.onCreate(savedInstanceState)**

**+ setContentView(R.layout.activity\_chat)**

**+**

**+ val id = intent.getIntExtra("friend\_id", 0)**

**+ val name = intent.getStringExtra("name")**

**+ val face = intent.getIntExtra("face", R.drawable.face\_1)**

**+ val testContent:TextView = findViewById(R.id.test\_content)**

**+ testContent.text = "$id, $name, $face"**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\happychat\DBHelper.kt**

**+ package com.example.happychat**

**+**

**+ import android.content.Context**

**+ import android.database.sqlite.SQLiteDatabase**

**+ import android.database.sqlite.SQLiteOpenHelper**

**+**

**+ class DBHelper(val context: Context, val name: String, val ver: Int):**

**+ SQLiteOpenHelper(context, name, null, ver) {**

**+**

**+ private val createFriend = "create table Friend (" +**

**+ "id integer primary key autoincrement, " +**

**+ "friend\_id integer, " +**

**+ "name text, " +**

**+ "face integer)"**

**+**

**+ private val createChat = "create table chat (" +**

**+ "id integer primary key autoincrement, " +**

**+ "friend\_id integer, " +**

**+ "content text, " +**

**+ "type integer )"**

**+**

**+**

**+ override fun onCreate(db: SQLiteDatabase) {**

**+ db.execSQL(createFriend)**

**+ db.execSQL(createChat)**

**+ }**

**+**

**+ override fun onUpgrade(db: SQLiteDatabase, oldVer: Int, newVer: Int) {**

**+ TODO("Not yet implemented")**

**+ }**

**+**

**+ companion object {**

**+ const val DB\_NAME = "ChatApp"**

**+ const val DB\_VERSION = 1**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\happychat\Friend.kt**

**+ package com.example.happychat**

**+**

**+ data class Friend(**

**+ val friendId: Int,**

**+ val name: String,**

**+ val face: Int**

**+ ) {**

**+ fun getVipName(): String{**

**+ return "VIP【${name}】"**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\happychat\FriendAdapter.kt**

**+ package com.example.happychat**

**+**

**+ import android.content.Context**

**+ import android.content.Intent**

**+ import android.view.LayoutInflater**

**+ import android.view.View**

**+ import android.view.ViewGroup**

**+ import android.widget.ImageView**

**+ import android.widget.TextView**

**+ import androidx.recyclerview.widget.RecyclerView**

**+ import org.w3c.dom.Text**

**+**

**+ class FriendAdapter(val friendList: List<Friend>, val context: Context):**

**+ RecyclerView.Adapter<FriendAdapter.ViewHolder>() {**

**+**

**+ inner class ViewHolder(val view:View):**

**+ RecyclerView.ViewHolder(view) {**

**+ val friendName: TextView = view.findViewById(R.id.friend\_list\_name)**

**+ val friendFace: ImageView = view.findViewById(R.id.friend\_list\_face)**

**+ }**

**+**

**+ override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): ViewHolder {**

**+ val view = LayoutInflater**

**+ .from(parent.context)**

**+ .inflate(R.layout.friend\_list\_item, parent, false)**

**+ return ViewHolder(view)**

**+ }**

**+**

**+ override fun getItemCount() = friendList.size**

**+**

**+ override fun onBindViewHolder(holder: ViewHolder, position: Int) {**

**+ val friend = friendList[position]**

**+ holder.friendName.text = friend.name**

**+ holder.friendFace.setImageResource(friend.face)**

**+ // 跳转事件**

**+ holder.view.setOnClickListener {**

**+ // 跳转到聊天界面**

**+ val intent = Intent(context, ChatActivity::class.java)**

**+ // 打包数据**

**+ intent.putExtra("friend\_id", friend.friendId)**

**+ intent.putExtra("name", friend.name)**

**+ intent.putExtra("face", friend.face)**

**+ context.startActivity(intent)**

**+ }**

**+**

**+**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\happychat\MainActivity.kt**

**+ package com.example.happychat**

**+**

**+ import android.annotation.SuppressLint**

**+ import android.content.ContentValues**

**+ import androidx.appcompat.app.AppCompatActivity**

**+ import android.os.Bundle**

**+ import androidx.recyclerview.widget.LinearLayoutManager**

**+ import androidx.recyclerview.widget.RecyclerView**

**+ import androidx.recyclerview.widget.RecyclerView.LayoutManager**

**+**

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ lateinit var friendListRV: RecyclerView**

**+ lateinit var dbHelper: DBHelper**

**+ val friendList = ArrayList<Friend>() // 朋友数据列表**

**+ lateinit var friendAdapter: FriendAdapter**

**+**

**+ @SuppressLint("Range")**

**+ override fun onCreate(savedInstanceState: Bundle?) {**

**+ super.onCreate(savedInstanceState)**

**+ setContentView(R.layout.activity\_main)**

**+ // 初始化对象**

**+ friendListRV = findViewById(R.id.friend\_list\_rv)**

**+ // 初始化数据库**

**+ dbHelper = DBHelper(this, DBHelper.DB\_NAME, DBHelper.DB\_VERSION)**

**+ // 插入初始数据,真实情况下，这里需要通过api获取数据**

**+ //initData()**

**+ // 通过数据库查询，生成adapter需要的朋友列表**

**+ val db = dbHelper.writableDatabase**

**+ // 查询数据库中的Friend表**

**+ // select \* from Friend**

**+ val cursor = db.rawQuery("select \* from Friend", null)**

**+ if (cursor.moveToFirst()) {**

**+ do {**

**+ val id = cursor.getInt(cursor.getColumnIndex("friend\_id"))**

**+ val name = cursor.getString(cursor.getColumnIndex("name"))**

**+ val face = cursor.getInt(cursor.getColumnIndex("face"))**

**+ friendList.add(Friend(id, name, face))**

**+ } while (cursor.moveToNext())**

**+ }**

**+**

**+ // 显示视图**

**+ friendAdapter = FriendAdapter(friendList, this)**

**+ friendListRV.adapter = friendAdapter**

**+ val layoutManager = LinearLayoutManager(this)**

**+ friendListRV.layoutManager = layoutManager**

**+**

**+ }**

**+**

**+ private fun initData() {**

**+ val db = dbHelper.writableDatabase**

**+ repeat(2) {**

**+ val value = ContentValues().apply {**

**+ put("friend\_id", 1\*it)**

**+ put("name", "张三")**

**+ put("face", R.drawable.face\_1)**

**+ }**

**+ db.insert("Friend", null, value)**

**+ val value2 = ContentValues().apply {**

**+ put("friend\_id", 5\*it)**

**+ put("name", "李四")**

**+ put("face", R.drawable.face\_2)**

**+ }**

**+ db.insert("Friend", null, value2)**

**+ }**

**+ }**

**+ }**

**新增 app\src\main\res\layout\activity\_chat.xml**

**+ <?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=".ChatActivity">**

**+ <TextView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/test\_content" />**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+ <androidx.recyclerview.widget.RecyclerView**

**+ android:id="@+id/friend\_list\_rv"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="0dp"**

**+ android:layout\_weight="1"/>**

**+**

**+**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\friend\_list\_item.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:orientation="horizontal"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="80dp">**

**+**

**+ <ImageView**

**+ android:layout\_width="60dp"**

**+ android:layout\_height="60dp"**

**+ android:id="@+id/friend\_list\_face"**

**+ android:src="@drawable/face\_1"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_marginStart="10dp" />**

**+ <TextView**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/friend\_list\_name"**

**+ android:text="张三张三张三张三张三"**

**+ android:textSize="20sp"**

**+ android:layout\_gravity="center\_vertical"**

**+ android:layout\_marginStart="10dp"/>**

**+**

**+ </LinearLayout>**

# HappyWeatherAPP

**修改 app\build.gradle**

plugins {

id 'com.android.application'

id 'org.jetbrains.kotlin.android'

}

android {

- namespace 'com.example.myapplication'

**+ namespace 'com.example.happyweatherapp'**

compileSdk 33

defaultConfig {

- applicationId "com.example.myapplication"

**+ applicationId "com.example.happyweatherapp"**

minSdk 24

targetSdk 33

versionCode 1

versionName "1.0"

testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"

}

buildTypes {

release {

minifyEnabled false

proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-rules.pro'

}

}

compileOptions {

sourceCompatibility JavaVersion.VERSION\_1\_8

targetCompatibility JavaVersion.VERSION\_1\_8

}

kotlinOptions {

jvmTarget = '1.8'

}

}

dependencies {

implementation 'androidx.core:core-ktx:1.7.0'

implementation 'androidx.appcompat:appcompat:1.4.1'

implementation 'com.google.android.material:material:1.5.0'

implementation 'androidx.constraintlayout:constraintlayout:2.1.3'

**+ implementation 'com.squareup.okhttp3:okhttp:4.9.3'**

testImplementation 'junit:junit:4.13.2'

androidTestImplementation 'androidx.test.ext:junit:1.1.3'

androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'

}

**新增 app\src\main\java\com\example\happyweatherapp\MainActivity.kt**

**+ package com.example.happyweatherapp**

**+**

**+ import androidx.appcompat.app.AppCompatActivity**

**+ import android.os.Bundle**

**+ import android.widget.TextView**

**+ import androidx.recyclerview.widget.RecyclerView**

**+ import okhttp3.OkHttpClient**

**+ import okhttp3.Request**

**+ import org.json.JSONObject**

**+ import kotlin.concurrent.thread**

**+**

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ val tempList = ArrayList<Weather>()**

**+**

**+ lateinit var cityName: TextView**

**+ lateinit var tempNow: TextView**

**+ lateinit var tempList15days: RecyclerView**

**+**

**+ lateinit var adapter: WeatherAdapter**

**+**

**+ override fun onCreate(savedInstanceState: Bundle?) {**

**+ super.onCreate(savedInstanceState)**

**+ setContentView(R.layout.activity\_main)**

**+ cityName = findViewById(R.id.city\_name)**

**+ tempNow = findViewById(R.id.temp\_now)**

**+ tempList15days = findViewById(R.id.temp\_list\_15days)**

**+**

**+ // 初始化数据**

**+ initData()**

**+ }**

**+**

**+ private fun initData() {**

**+ thread {**

**+ try {**

**+ val client = OkHttpClient()**

**+ val request = Request.Builder()**

**+ .url("http://t.weather.sojson.com/api/weather/city/101030100")**

**+ .build()**

**+ val response = client.newCall(request).execute()**

**+ val responseData = response.body?.string().toString()**

**+**

**+ showWeatherData(responseData)**

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

**+ }**

**+ }**

**+ }**

**+**

**+ private fun showWeatherData(responseData: String) {**

**+ runOnUiThread {**

**+ try {**

**+ // 解包顶层数据**

**+ val jsonData = JSONObject(responseData)**

**+ val cityName = jsonData.getJSONObject("cityInfo").getString("city")**

**+ val data = jsonData.getJSONObject("data")**

**+ val tempNow = data.getString("wendu")**

**+ // 未来15天**

**+ val allTemp = data.getJSONArray("forecast")**

**+ for (i in 1 until allTemp.length()) {**

**+ val now = allTemp.getJSONObject(i)**

**+ val day = now.getString("date")**

**+ val low = now.getString("low")**

**+ val high = now.getString("high")**

**+ val type = now.getString("type")**

**+ tempList.add(Weather(day, low, high, type))**

**+ }**

**+**

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

**+ }**

**+ }**

**+ }**

**+ }**

**新增 app\src\main\java\com\example\happyweatherapp\Weather.kt**

**+ package com.example.happyweatherapp**

**+**

**+ data class Weather(**

**+ val day: String,**

**+ val low: String,**

**+ val high: String,**

**+ val type: String**

**+ ) {**

**+ }**

**新增 app\src\main\java\com\example\happyweatherapp\WeatherAdapter.kt**

**+ package com.example.happyweatherapp**

**+**

**+ import android.content.Context**

**+ import android.view.LayoutInflater**

**+ import android.view.View**

**+ import android.view.ViewGroup**

**+ import android.widget.ImageView**

**+ import android.widget.TextView**

**+ import androidx.recyclerview.widget.RecyclerView**

**+**

**+ class WeatherAdapter(val tempList: List<Weather>, val context: Context):**

**+ RecyclerView.Adapter<WeatherAdapter.ViewHolder>() {**

**+**

**+ inner class ViewHolder(val view: View): RecyclerView.ViewHolder(view) {**

**+ val day: TextView = view.findViewById(R.id.temp\_list\_day)**

**+ val low: TextView = view.findViewById(R.id.temp\_list\_low)**

**+ val high: TextView = view.findViewById(R.id.temp\_list\_high)**

**+ val type: ImageView = view.findViewById(R.id.temp\_list\_type)**

**+ }**

**+**

**+ override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): WeatherAdapter.ViewHolder {**

**+ val view = LayoutInflater.from(parent.context)**

**+ .inflate(R.layout.temp\_list\_item, parent, false)**

**+ return ViewHolder(view)**

**+ }**

**+**

**+ override fun onBindViewHolder(holder: WeatherAdapter.ViewHolder, position: Int) {**

**+ val temp = tempList[position]**

**+ holder.day.text = temp.day**

**+ holder.low.text = temp.low**

**+ holder.high.text = temp.high**

**+ var imgType: Int = 0**

**+ if (temp.type == "晴") {**

**+ imgType = R.drawable.sunny**

**+ } else if (temp.type == "多云") {**

**+ imgType = R.drawable.cloudy**

**+ } else {**

**+ imgType = R.drawable.rainy**

**+ }**

**+ holder.type.setImageResource(imgType)**

**+ }**

**+**

**+ override fun getItemCount() = tempList.size**

**+ }**

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+ <!--城市名称-->**

**+ <TextView**

**+ android:id="@+id/city\_name"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="120dp"**

**+ android:gravity="center"**

**+ android:textSize="30sp"**

**+ android:text="北京"/>**

**+ <!--当前气温-->**

**+ <TextView**

**+ android:id="@+id/temp\_now"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="80dp"**

**+ android:gravity="center"**

**+ android:textSize="25sp"**

**+ android:text="29度"/>**

**+ <!-- 未来15天天气-->**

**+ <androidx.recyclerview.widget.RecyclerView**

**+ android:id="@+id/temp\_list\_15days"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="0dp"**

**+ android:layout\_weight="1" />**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\layout\temp\_list\_item.xml**

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

**+ <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="60dp">**

**+ <TextView**

**+ android:id="@+id/temp\_list\_day"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="wrap\_content"**

**+ android:layout\_gravity="center"**

**+ android:text="03日"/>**

**+ <TextView**

**+ android:id="@+id/temp\_list\_low"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="wrap\_content"**

**+ android:layout\_gravity="center"**

**+ android:text="10度"/>**

**+ <TextView**

**+ android:id="@+id/temp\_list\_high"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="wrap\_content"**

**+ android:layout\_gravity="center"**

**+ android:text="28度"/>**

**+ <ImageView**

**+ android:id="@+id/temp\_list\_type"**

**+ android:layout\_width="0dp"**

**+ android:layout\_weight="1"**

**+ android:layout\_height="50dp"**

**+ android:src="@drawable/cloudy"/>**

**+**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\xml\network\_security\_config.xml**

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

**+ <network-security-config>**

**+ <base-config cleartextTrafficPermitted="true"/>**

**+ </network-security-config>**

# HttpConn

**修改 app\build.gradle**

plugins {

id 'com.android.application'

id 'org.jetbrains.kotlin.android'

}

android {

namespace 'com.example.myapplication'

compileSdk 33

defaultConfig {

applicationId "com.example.myapplication"

minSdk 24

targetSdk 33

versionCode 1

versionName "1.0"

testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"

}

buildTypes {

release {

minifyEnabled false

proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-rules.pro'

}

}

compileOptions {

sourceCompatibility JavaVersion.VERSION\_1\_8

targetCompatibility JavaVersion.VERSION\_1\_8

}

kotlinOptions {

jvmTarget = '1.8'

}

}

dependencies {

implementation 'androidx.core:core-ktx:1.7.0'

implementation 'androidx.appcompat:appcompat:1.4.1'

implementation 'com.google.android.material:material:1.5.0'

implementation 'androidx.constraintlayout:constraintlayout:2.1.3'

**+ implementation 'com.squareup.okhttp3:okhttp:4.9.3'**

testImplementation 'junit:junit:4.13.2'

androidTestImplementation 'androidx.test.ext:junit:1.1.3'

androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'

}

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import android.widget.Button**

**+ import android.widget.TextView**

**+ import okhttp3.OkHttpClient**

**+ import okhttp3.Request**

**+ import java.io.BufferedReader**

**+ import java.io.InputStreamReader**

**+ import java.net.HttpURLConnection**

**+ import java.net.URL**

**+ import kotlin.concurrent.thread**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ lateinit var sendButton: Button**

**+ lateinit var contentArea: TextView**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

**+ setContentView(R.layout.activity\_main)**

**+ contentArea = findViewById(R.id.content\_area)**

**+ sendButton = findViewById(R.id.enter\_url\_btn)**

**+ sendButton.setOnClickListener {**

**+ //sendRequestWithHttpURLConn()**

**+ sendRequestWithOkHttp()**

**+ }**

**+ }**

**+**

**+ private fun sendRequestWithOkHttp() {**

**+ thread {**

- ) {

**+ try {**

- Greeting("Android")

- }

**+ val client = OkHttpClient()**

**+ val request = Request.Builder()**

**+ .url("http://202.198.198.11:8000/api/v2/friends")**

**+ .build()**

**+ val response = client.newCall(request).execute()**

**+ showResponse(response.body?.string().toString())**

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

}

}

}

- }

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

**+ // 网络请求方法**

**+ private fun sendRequestWithHttpURLConn() {**

**+ // 快速开启一个线程**

**+ thread {**

**+ // 定义连接对象**

**+ var connection:HttpURLConnection? = null**

**+ try {**

**+ val response = StringBuilder()**

**+ val url = URL("http://202.198.198.11:8000/api/v2/friends")**

**+ connection = url.openConnection() as HttpURLConnection**

**+ connection.connectTimeout = 8000**

**+ connection.readTimeout = 8000**

**+ val input = connection.inputStream**

**+ // 读取输入流**

**+ val reader = BufferedReader(InputStreamReader(input))**

**+ reader.use {**

**+ reader.forEachLine {**

**+ response.append(it)**

**+ }**

**+ }**

**+ showResponse(response.toString())**

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

**+ } catch (e: Exception) {**

**+**

**+ }**

**+ }**

**+ }**

**+**

**+ private fun showResponse(content: String) {**

**+ runOnUiThread {**

**+ contentArea.text = content**

**+ }**

}

}

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/enter\_url\_btn"**

**+ android:text="访问网站" />**

**+ <ScrollView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="0dp"**

**+ android:layout\_weight="1">**

**+ <TextView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/content\_area" />**

**+ </ScrollView>**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\xml\network\_security\_config.xml**

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

**+ <network-security-config>**

**+ <base-config cleartextTrafficPermitted="true"/>**

**+ </network-security-config>**

# JsonData

**修改 app\build.gradle**

plugins {

id 'com.android.application'

id 'org.jetbrains.kotlin.android'

}

android {

namespace 'com.example.myapplication'

compileSdk 33

defaultConfig {

applicationId "com.example.myapplication"

minSdk 24

targetSdk 33

versionCode 1

versionName "1.0"

testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"

}

buildTypes {

release {

minifyEnabled false

proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-rules.pro'

}

}

compileOptions {

sourceCompatibility JavaVersion.VERSION\_1\_8

targetCompatibility JavaVersion.VERSION\_1\_8

}

kotlinOptions {

jvmTarget = '1.8'

}

}

dependencies {

implementation 'androidx.core:core-ktx:1.7.0'

implementation 'androidx.appcompat:appcompat:1.4.1'

implementation 'com.google.android.material:material:1.5.0'

implementation 'androidx.constraintlayout:constraintlayout:2.1.3'

**+ implementation 'com.squareup.okhttp3:okhttp:4.9.3'**

testImplementation 'junit:junit:4.13.2'

androidTestImplementation 'androidx.test.ext:junit:1.1.3'

androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'

}

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

**+ import android.util.Log**

**+ import android.widget.Button**

**+ import android.widget.TextView**

**+ import okhttp3.OkHttpClient**

**+ import okhttp3.Request**

**+ import org.json.JSONArray**

**+ import org.json.JSONObject**

**+ import java.io.BufferedReader**

**+ import java.io.InputStreamReader**

**+ import java.net.HttpURLConnection**

**+ import java.net.URL**

**+ import kotlin.concurrent.thread**

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ lateinit var sendButton: Button**

**+ lateinit var contentArea: TextView**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

**+ setContentView(R.layout.activity\_main)**

**+ contentArea = findViewById(R.id.content\_area)**

**+ sendButton = findViewById(R.id.enter\_url\_btn)**

**+ sendButton.setOnClickListener {**

**+ //sendRequestWithHttpURLConn()**

**+ sendRequestWithOkHttp()**

**+ }**

**+ }**

**+**

**+ private fun sendRequestWithOkHttp() {**

**+ thread {**

- ) {

**+ try {**

- Greeting("Android")

**+ val client = OkHttpClient()**

**+ val request = Request.Builder()**

**+ .url("http://t.weather.sojson.com/api/weather/city/101060301")**

**+ .build()**

**+ val response = client.newCall(request).execute()**

**+ showResponse(response.body?.string().toString())**

**+ // 解析Json数据**

**+ //parseJSONWithJsonObject(response.body?.string().toString())**

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

**+ }**

**+ }**

**+ }**

**+**

**+ private fun parseJSONWithJsonObject(jsonData: String) {**

**+ runOnUiThread {**

**+ try {**

**+ // 解包最外层[]**

**+ val jsonArray = JSONArray(jsonData)**

**+ // 开始遍历数据**

**+ for (i in 0 until jsonArray.length()) {**

**+ val friendInfo = jsonArray.getJSONObject(i)**

**+ val id = friendInfo.getInt("id")**

**+ val name = friendInfo.getString("name")**

**+ val face = friendInfo.getInt("face")**

**+ Log.d("MainActivity - Json", "第${i}条记录，id=$id,name=$name,face=$face")**

}

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

**+ }**

**+ }**

**+ }**

**+**

**+ // 网络请求方法**

**+ private fun sendRequestWithHttpURLConn() {**

**+ // 快速开启一个线程**

**+ thread {**

**+ // 定义连接对象**

**+ var connection:HttpURLConnection? = null**

**+ try {**

**+ val response = StringBuilder()**

**+ val url = URL("http://202.198.198.11:8000/api/v2/friends")**

**+ connection = url.openConnection() as HttpURLConnection**

**+ connection.connectTimeout = 8000**

**+ connection.readTimeout = 8000**

**+ val input = connection.inputStream**

**+ // 读取输入流**

**+ val reader = BufferedReader(InputStreamReader(input))**

**+ reader.use {**

**+ reader.forEachLine {**

**+ response.append(it)**

**+ }**

**+ }**

**+ showResponse(response.toString())**

**+**

**+ } catch (e: Exception) {**

**+**

**+ }**

**+ }**

**+ }**

**+**

**+ private fun showResponse(content: String) {**

**+ runOnUiThread {**

**+ contentArea.text = content**

**+ }**

**+ //parseJSONWithJsonObject(content)**

**+ parseJSONWithWeather(content)**

**+ }**

**+**

**+ private fun parseJSONWithWeather(jsonData: String) {**

**+ runOnUiThread {**

**+ try {**

**+ // 解析第一层**

**+ val weatherData = JSONObject(jsonData)**

**+ // 状态值 status**

**+ val status = weatherData.getInt("status")**

**+ val dateInfo = weatherData.getString("date")**

**+ Log.d("MainActivity - weather", "状态:$status, 日期: $dateInfo")**

**+ // 获取第二层 cityinfo**

**+ val cityInfo = weatherData.getJSONObject("cityInfo")**

**+ val city = cityInfo.getString("city")**

**+ val cityCode = cityInfo.getString("citykey")**

**+ val parent = cityInfo.getString("parent")**

**+ Log.d("MainActivity - weather", "城市:$city, 编码:$cityCode, 省份:$parent")**

**+ // 获取第二层 data**

**+ val data = weatherData.getJSONObject("data")**

**+ val shidu = data.getString("shidu")**

**+ val pm25 = data.getString("pm25")**

**+ // 获取昨天信息（第三层)**

**+ val yesterday = data.getJSONObject("yesterday")**

**+ val yDate = yesterday.getString("date")**

**+ val yHigh = yesterday.getString("high")**

**+ // 获取未来15天信息（第三层)**

**+ val data\_15 = data.getJSONArray("forecast")**

**+ for (i in 0 until data\_15.length()) {**

**+ val dayInfo = data\_15.getJSONObject(i)**

**+ val dayDate = dayInfo.getInt("date")**

**+ val high = dayInfo.getString("high")**

**+ val low = dayInfo.getString("low")**

**+ val week = dayInfo.getString("week")**

**+ Log.d("MainActivity - weather", "$dayDate 日，$week，气温: $low ~ $high")**

**+ }**

**+**

**+ } catch (e: Exception) {**

**+ e.printStackTrace()**

}

}

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/enter\_url\_btn"**

**+ android:text="访问网站" />**

**+ <ScrollView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="0dp"**

**+ android:layout\_weight="1">**

**+ <TextView**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/content\_area" />**

**+ </ScrollView>**

**+**

**+ </LinearLayout>**

**新增 app\src\main\res\xml\network\_security\_config.xml**

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

**+ <network-security-config>**

**+ <base-config cleartextTrafficPermitted="true"/>**

**+ </network-security-config>**

# MyApplication20250401

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import android.graphics.Color**

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import android.widget.ArrayAdapter**

**+ import android.widget.ListView**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+ // #1 生成数据类**

**+ data class Score(val name: String, val score: Int)**

**+ data class Question(val text: String, val isCorrect: Boolean)**

**+ // #2 控件定义**

**+ private lateinit var scoreListView: ListView**

**+ //private val QuestionListView: ListView = TODO()**

**+ private lateinit var questionListView: ListView**

**+**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

**+ setContentView(R.layout.activity\_main)**

**+**

**+ // #3 实例化控件**

**+ scoreListView = findViewById(R.id.scoreListView)**

**+ questionListView = findViewById(R.id.questionListView)**

**+**

**+ // #4 生成成绩列表**

**+ val scores = listOf(**

**+ Score("张三", 80),**

**+ Score("李四", 95),**

**+ Score("John", 85)**

**+ )**

**+**

**+ // #5 生成Adapter**

**+ val adapterScore = ArrayAdapter(**

**+ this,**

**+ android.R.layout.simple\_list\_item\_1,**

**+ scores.map { "姓名:${it.name}, 成绩:${it.score}" }**

**+ )**

**+ // #6 显示列表数据**

**+ scoreListView.adapter = adapterScore**

**+**

**+ // #7 生成问答数据**

**+ val questions = listOf(**

**+ Question("A.Kotlin是一门静态语言", true),**

**+ Question("B.Java是Kotlin的子集", false),**

**+ Question("C.Kotlin没有类", false),**

**+ Question("D.Android是用C++写的", false)**

**+ )**

**+ val questionAdapter = ArrayAdapter(**

**+ this,**

**+ android.R.layout.simple\_list\_item\_1,**

**+ questions.map { "${it.text}" }**

**+ )**

**+ questionListView.adapter = questionAdapter**

**+**

**+ // \*\*交互\*\***

**+ questionListView.setOnItemClickListener{**

**+ parent, view, postion,\_ ->**

**+ val item = questions[postion]**

**+ if (item.isCorrect) {**

**+ view.setBackgroundColor(Color.parseColor("#A5D6A7"))**

- ) {

**+ } else {**

- Greeting("Android")

**+ view.setBackgroundColor(Color.parseColor("#ef9a9a"))**

- }

**+ }**

**+**

**+**

**+ }**

**+ scoreListView.setOnItemClickListener{**

**+ parent, view, position, \_ ->**

**+ val item = scores[position]**

**+ if (item.score >= 85) {**

**+ view.setBackgroundColor(Color.parseColor("#A5D6A7"))**

**+ } else {**

**+ view.setBackgroundColor(Color.parseColor("#ef9a9a"))**

}

}

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+**

**+ <ListView**

**+ android:id="@+id/scoreListView"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"/>**

**+ <ListView**

**+ android:id="@+id/questionListView"**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"/>**

**+**

**+ </LinearLayout>**

# SQLite

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import android.annotation.SuppressLint**

**+ import android.content.ContentValues**

**+ import android.database.sqlite.SQLiteOpenHelper**

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import android.util.Log**

**+ import android.widget.Button**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ lateinit var createDbBtn: Button**

**+ lateinit var insertDataBtn: Button**

**+ lateinit var selectDataBtn: Button**

**+**

**+ lateinit var db: SQLiteOpenHelper**

**+**

**+ @SuppressLint("Range")**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

**+ setContentView(R.layout.activity\_main)**

**+ // 初始化控件**

**+ createDbBtn = findViewById(R.id.create\_db\_btn)**

**+ insertDataBtn = findViewById(R.id.insert\_data\_btn)**

**+ selectDataBtn = findViewById(R.id.select\_data\_btn)**

**+**

**+ // 初始化数据库**

**+ db = MyDatabaseHelper(this, "Book", MyDatabaseHelper.DB\_VER)**

**+ val dbObj = db.writableDatabase**

**+ createDbBtn.setOnClickListener {**

**+ //db.writableDatabase**

**+ }**

**+**

**+ // 添加数据**

**+ insertDataBtn.setOnClickListener {**

**+ val value1 = ContentValues().apply {**

**+ put("name", "达芬奇密码")**

**+ put("author", "Dan brown")**

**+ put("pages", 454)**

**+ put("price", 16.96)**

**+ }**

**+ dbObj.insert("Book", null, value1)**

**+ }**

**+**

**+ selectDataBtn.setOnClickListener {**

**+ //val cursor = dbObj.query("Book",null,null,null,null,null,null)**

**+ val cursor = dbObj.rawQuery("select \* from Book", null)**

**+ if (cursor.moveToFirst()) {**

- ) {

**+ do {**

- Greeting("Android")

- }

**+ val name = cursor.getString(cursor.getColumnIndex("name"))**

**+ Log.d("db debug", name)**

**+ } while (cursor.moveToNext())**

}

}

**+**

**+**

}

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\java\com\example\myapplication\MyDatabaseHelper.kt**

**+ package com.example.myapplication**

**+**

**+ import android.content.Context**

**+ import android.database.sqlite.SQLiteDatabase**

**+ import android.database.sqlite.SQLiteOpenHelper**

**+ import android.widget.Toast**

**+**

**+ class MyDatabaseHelper(val context: Context, name: String, version: Int):**

**+ SQLiteOpenHelper(context, name, null,version){**

**+**

**+ private val createBook = "create table Book (" +**

**+ "id integer primary key autoincrement," +**

**+ "author text, " +**

**+ "price real, " +**

**+ "pages integer, " +**

**+ "name text)"**

**+ private val createCategory = "create table Category (" +**

**+ "id integer primary key autoincrement, " +**

**+ "category\_name text, " +**

**+ "category\_code integer)"**

**+**

**+**

**+ override fun onCreate(db: SQLiteDatabase) {**

**+ db.execSQL(createBook) // ver 1**

**+ db.execSQL(createCategory) // ver 2**

**+ Toast.makeText(context,**

**+ "创建成功!!!",**

**+ Toast.LENGTH\_SHORT).show()**

**+ }**

**+**

**+ override fun onUpgrade(db: SQLiteDatabase, oldVer: Int, newVer: Int) {**

**+ if (oldVer == 1) {**

**+ db.execSQL(createCategory)**

**+ }**

**+**

**+ //db.execSQL("drop table if exists Book")**

**+ //db.execSQL("drop table if exists Category")**

**+ //onCreate(db)**

**+ }**

**+ companion object {**

**+ const val DB\_VER = 2**

**+ }**

**+ }**

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/create\_db\_btn"**

**+ android:text="创建数据库" />**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/insert\_data\_btn"**

**+ android:text="添加数据" />**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/select\_data\_btn"**

**+ android:text="查询数据" />**

**+**

**+ </LinearLayout>**

# xmlFile

**修改 app\src\main\java\com\example\myapplication\MainActivity.kt**

package com.example.myapplication

**+ import android.content.Context**

**+ import androidx.appcompat.app.AppCompatActivity**

import android.os.Bundle

**+ import android.widget.Button**

**+ import android.widget.CheckBox**

**+ import android.widget.EditText**

- import androidx.activity.ComponentActivity

- import androidx.activity.compose.setContent

- import androidx.compose.foundation.layout.fillMaxSize

- import androidx.compose.material3.MaterialTheme

- import androidx.compose.material3.Surface

- import androidx.compose.material3.Text

- import androidx.compose.runtime.Composable

- import androidx.compose.ui.Modifier

- import androidx.compose.ui.tooling.preview.Preview

- import com.example.myapplication.ui.theme.MyApplicationTheme

- class MainActivity : ComponentActivity() {

**+ class MainActivity : AppCompatActivity() {**

**+**

**+ lateinit var userName: EditText**

**+ lateinit var userPass: EditText**

**+ lateinit var saveBtn: Button**

**+ lateinit var rmbPass: CheckBox**

**+**

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

- setContent {

- MyApplicationTheme {

- // A surface container using the 'background' color from the theme

- Surface(

- modifier = Modifier.fillMaxSize(),

- color = MaterialTheme.colorScheme.background

- ) {

- Greeting("Android")

- }

- }

**+ setContentView(R.layout.activity\_main)**

**+ userName = findViewById(R.id.user\_name)**

**+ userPass = findViewById(R.id.user\_pass)**

**+ saveBtn = findViewById(R.id.save\_btn)**

**+ rmbPass = findViewById(R.id.rmb\_pass)**

**+**

**+ saveBtn.setOnClickListener {**

**+ val editor = getSharedPreferences("info", Context.MODE\_PRIVATE).edit()**

**+ editor.putString("user\_name", userName.text.toString())**

**+ editor.putString("user\_pass", userPass.text.toString())**

**+ editor.putBoolean("rmb\_pass", rmbPass.isChecked)**

**+ editor.apply()**

}

}

**+**

**+ override fun onStart() {**

**+ super.onStart()**

**+ val reader = getSharedPreferences("info", Context.MODE\_PRIVATE)**

**+ // 获取保存密码状态**

**+ val status = reader.getBoolean("rmb\_pass", false)**

**+ rmbPass.isChecked = status**

**+ if (status) {**

**+ userName.setText(reader.getString("user\_name", ""))**

**+ userPass.setText(reader.getString("user\_pass", ""))**

**+ }**

**+ }**

**+**

**+ override fun onDestroy() {**

**+ super.onDestroy()**

**+ val editor = getSharedPreferences("info", Context.MODE\_PRIVATE).edit()**

**+ editor.putString("user\_name", userName.text.toString())**

**+ editor.putString("user\_pass", userPass.text.toString())**

**+ editor.putBoolean("rmb\_pass", rmbPass.isChecked)**

**+ editor.apply()**

**+ }**

**+**

**+ override fun onStop() {**

**+ super.onStop()**

**+ }**

**+**

}

-

- @Composable

- fun Greeting(name: String, modifier: Modifier = Modifier) {

- Text(

- text = "Hello $name!",

- modifier = modifier

- )

- }

-

- @Preview(showBackground = true)

- @Composable

- fun GreetingPreview() {

- MyApplicationTheme {

- Greeting("Android")

- }

- }

**新增 app\src\main\res\layout\activity\_main.xml**

**+ <?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">**

**+**

**+ <TextView**

**+ android:layout\_width="wrap\_content"**

**+ android:layout\_height="wrap\_content"**

**+ android:text="Hello World!"**

**+ app:layout\_constraintBottom\_toBottomOf="parent"**

**+ app:layout\_constraintEnd\_toEndOf="parent"**

**+ app:layout\_constraintStart\_toStartOf="parent"**

**+ app:layout\_constraintTop\_toTopOf="parent" />**

**+ <EditText**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/user\_name"/>**

**+ <EditText**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/user\_pass" />**

**+ <CheckBox**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/rmb\_pass"**

**+ android:text="记住登录状态" />**

**+ <Button**

**+ android:layout\_width="match\_parent"**

**+ android:layout\_height="wrap\_content"**

**+ android:id="@+id/save\_btn"**

**+ android:text="save"/>**

**+**

**+ </LinearLayout>**