**Bài tập Lab4**

Họ tên: Nguyễn Hưng Văn Khánh

MSSV: 1150080021

**MainActivity.java:**

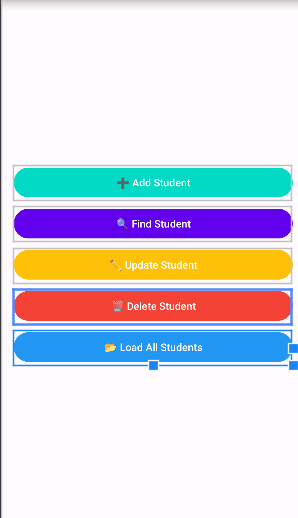
package com.example.btap4;  
  
import android.os.Bundle;  
import android.util.Log;  
import android.widget.Button;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import java.util.List;  
  
import retrofit2.\*;  
import retrofit2.converter.gson.GsonConverterFactory;  
  
public class MainActivity extends AppCompatActivity {  
 private StudentApi api;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 Retrofit retrofit = new Retrofit.Builder()  
 .baseUrl("http://10.120.6.74:3000/") // 🔑  
 .addConverterFactory(GsonConverterFactory.*create*())  
 .build();  
  
 api = retrofit.create(StudentApi.class);  
  
 Button btnLoad = findViewById(R.id.*btnLoadData*);  
 btnLoad.setOnClickListener(v -> loadStudents());  
  
 Button btnAdd = findViewById(R.id.*btnAdd*);  
 btnAdd.setOnClickListener(v -> addStudent());  
 }  
  
 private void loadStudents() {  
 api.getStudents().enqueue(new Callback<List<Student>>() {  
 @Override  
 public void onResponse(Call<List<Student>> call, Response<List<Student>> response) {  
 if (response.isSuccessful()) {  
 List<Student> list = response.body();  
 Toast.*makeText*(MainActivity.this, "Total: " + list.size(), Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
 @Override  
 public void onFailure(Call<List<Student>> call, Throwable t) {  
 Log.*e*("API", "Error: " + t.getMessage());  
 }  
 });  
 }  
  
 private void addStudent() {  
 Student s = new Student();  
 s.setStudentId(1150080021);  
 s.setStudentName("Nguyễn Hưng Văn Khánh");  
 s.setAge(20);  
  
 api.addStudent(s).enqueue(new Callback<Student>() {  
 @Override  
 public void onResponse(Call<Student> call, Response<Student> response) {  
 if (response.isSuccessful()) {  
 Toast.*makeText*(MainActivity.this, "Add OK", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
 @Override  
 public void onFailure(Call<Student> call, Throwable t) {  
 Log.*e*("API", "Error: " + t.getMessage());  
 }  
 });  
 }  
}

**acticity\_main.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="match\_parent"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="16dp">  
  
 <Button  
 android:id="@+id/btnAdd"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="➕ Add Student"  
 android:backgroundTint="@color/teal\_200"  
 android:textColor="@android:color/white"/>  
  
 <Button  
 android:id="@+id/btnFind"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="🔍 Find Student"  
 android:layout\_marginTop="8dp"  
 android:backgroundTint="@color/purple\_500"  
 android:textColor="@android:color/white"/>  
  
 <Button  
 android:id="@+id/btnUpdate"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="✏️ Update Student"  
 android:layout\_marginTop="8dp"  
 android:backgroundTint="@color/amber\_500"  
 android:textColor="@android:color/white"/>  
  
 <Button  
 android:id="@+id/btnDelete"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="🗑 Delete Student"  
 android:layout\_marginTop="8dp"  
 android:backgroundTint="@color/red\_500"  
 android:textColor="@android:color/white"/>  
  
 <Button  
 android:id="@+id/btnLoadData"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="📂 Load All Students"  
 android:layout\_marginTop="8dp"  
 android:backgroundTint="@color/blue\_500"  
 android:textColor="@android:color/white"/>  
</LinearLayout>

**colors.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<resources>  
 <color name="teal\_200">#03DAC5</color>  
 <color name="purple\_500">#6200EE</color>  
 <color name="amber\_500">#FFC107</color>  
 <color name="red\_500">#F44336</color>  
 <color name="blue\_500">#2196F3</color>  
  
</resources>



**AndoidManifest.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <uses-permission android:name="android.permission.INTERNET" />  
  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.Btap4">  
  
 <activity  
 android:name="com.example.btap4.MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
  
 </application>  
</manifest>