LAB2: Bài 2 \_ Bài tập 3

Chuẩn bị tài nguyên

Tài nguyên chuỗi

<resources>  
 <string name="app\_name">Face Emoij</string>  
</resources>

Tài nguyên màu sắc

*<?*xml version="1.0" encoding="utf-8"*?>*<resources>  
 <color name="purple\_200">#FFBB86FC</color>  
 <color name="purple\_500">#FF9800</color>  
 <color name="purple\_700">#FF6F00</color>  
 <color name="teal\_200">#FF03DAC5</color>  
 <color name="teal\_700">#FF018786</color>  
 <color name="black">#FF000000</color>  
 <color name="white">#FFFFFFFF</color>  
</resources>

Tài nguyên hình ảnh

A screenshot of a computer

AI-generated content may be incorrect.

Thiết kế layout emoji frag

*<?*xml version="1.0" encoding="utf-8"*?>*<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical">  
  
 <ImageView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="match\_parent"  
 android:scaleType="centerCrop"  
 android:src="@drawable/bg\_emoji" />  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#A6000000"  
 android:orientation="vertical"  
 android:paddingHorizontal="10dp"  
 android:paddingTop="30dp">  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center">  
  
 <ImageView  
 android:id="@+id/iv\_face1"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_sleeping"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face2"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_hot\_face"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face3"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_nauseated\_face"  
 tools:ignore="ContentDescription" />  
 </TableRow>  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:gravity="center">  
  
 <ImageView  
 android:id="@+id/iv\_face4"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_hugging\_face"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face5"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_money\_mouth\_face"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face6"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_star\_struck"  
 tools:ignore="ContentDescription" />  
 </TableRow>  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:gravity="center">  
  
 <ImageView  
 android:id="@+id/iv\_face7"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_laughing"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face8"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_smile"  
 tools:ignore="ContentDescription" />  
  
 <ImageView  
 android:id="@+id/iv\_face9"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:background="@drawable/bg\_radius"  
 android:padding="10dp"  
 android:src="@drawable/ic\_emoji"  
 tools:ignore="ContentDescription"/>  
 </TableRow>  
  
 </LinearLayout>  
   
</FrameLayout>

Thiết kế layout activity main

*<?*xml version="1.0" encoding="utf-8"*?>*<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical">  
 <fragment  
 android:id="@+id/frg\_face\_emoij"  
 class="com.example.lab2\_bai2\_3.FragmentFaceEmoij"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" />  
</FrameLayout>

Xử lý logic ở Activity

package com.example.lab2\_bai2\_3;  
  
import android.os.Bundle;  
import androidx.appcompat.app.AppCompatActivity;  
public class MainActivity extends AppCompatActivity {  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
}

Xử lý logic ở FragmentFaceEmoji

package com.example.lab2\_bai2\_3;  
  
import android.content.Context;  
import android.graphics.drawable.Drawable;  
import android.os.Bundle;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.Button;  
import android.widget.ImageView;  
import android.widget.Toast;  
import androidx.fragment.app.Fragment;  
public class FragmentFaceEmoij extends Fragment implements View.OnClickListener {  
 private static final int[] *ids* = {R.id.*iv\_face1*, R.id.*iv\_face2*, R.id.*iv\_face3*, R.id.*iv\_face4*,  
 R.id.*iv\_face5*, R.id.*iv\_face6*, R.id.*iv\_face7*, R.id.*iv\_face8*, R.id.*iv\_face9*};  
  
  
  
 private Context mContext;  
 @Override  
 public View onCreateView(LayoutInflater inflater, ViewGroup container,  
  
 Bundle savedInstanceState) {  
 View rootView = inflater.inflate(R.layout.*m001\_frg\_face\_emoij*, container, false);  
 initViews(rootView);  
 return rootView;  
 }  
 @Override  
 public void onAttach(Context context) {  
 mContext = context;  
 super.onAttach(context);  
 }  
 private void initViews(View v) {  
 for (id : ids) {  
 v.findViewById(id).setOnClickListener(this);  
 }  
  
 }  
 @Override  
 public void onClick(View v) {  
 ImageView ivFace = (ImageView) v;  
 showToast(ivFace.getDrawable());  
 }  
 private void showToast(Drawable drawable) {  
 Toast toast = new Toast(mContext);  
 ImageView ivEmoij = new ImageView(mContext);  
 ivEmoij.setImageDrawable(drawable);  
 toast.setView(ivEmoij);  
 toast.show();  
 }  
  
   
}

Tiến hành cải tiến thêm button vào emoji

<Button  
 android:id="@+id/btn\_random"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Random Emoji"  
 android:layout\_gravity="center"  
 android:layout\_marginTop="20dp"/>

Sau đó thêm danh sách drawable icon và hàm random và thêm sự kiện cho button

package com.example.lab2\_bai2\_3;  
  
import android.content.Context;  
import android.graphics.drawable.Drawable;  
import android.os.Bundle;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.Button;  
import android.widget.ImageView;  
import android.widget.Toast;  
import androidx.fragment.app.Fragment;  
public class FragmentFaceEmoij extends Fragment implements View.OnClickListener {  
 private static final int[] *ids* = {R.id.*iv\_face1*, R.id.*iv\_face2*, R.id.*iv\_face3*, R.id.*iv\_face4*,  
 R.id.*iv\_face5*, R.id.*iv\_face6*, R.id.*iv\_face7*, R.id.*iv\_face8*, R.id.*iv\_face9*};  
  
 *// 10 icon* private static final int[] *allDrawables* = {  
 R.drawable.*ic\_sleeping*,  
 R.drawable.*ic\_hot\_face*,  
 R.drawable.*ic\_nauseated\_face*,  
 R.drawable.*ic\_hugging\_face*,  
 R.drawable.*ic\_money\_mouth\_face*,  
 R.drawable.*ic\_star\_struck*,  
 R.drawable.*ic\_laughing*,  
 R.drawable.*ic\_smile*,  
 R.drawable.*ic\_emoji* };  
  
  
 private Context mContext;  
 @Override  
 public View onCreateView(LayoutInflater inflater, ViewGroup container,  
  
 Bundle savedInstanceState) {  
 View rootView = inflater.inflate(R.layout.*m001\_frg\_face\_emoij*, container, false);  
 initViews(rootView);  
 return rootView;  
 }  
 @Override  
 public void onAttach(Context context) {  
 mContext = context;  
 super.onAttach(context);  
 }  
 private void initViews(View rootView) {  
 for (int i = 0; i < *ids*.length; i++) {  
 ImageView iv = rootView.findViewById(*ids*[i]);  
 iv.setImageResource(*allDrawables*[i % *allDrawables*.length]);  
 iv.setOnClickListener(this);  
 }  
  
 Button btnRandom = rootView.findViewById(R.id.*btn\_random*);  
 btnRandom.setOnClickListener(v -> randomizeEmojis(rootView));  
 }  
 @Override  
 public void onClick(View v) {  
 ImageView ivFace = (ImageView) v;  
 showToast(ivFace.getDrawable());  
 }  
 private void showToast(Drawable drawable) {  
 Toast toast = new Toast(mContext);  
 ImageView ivEmoij = new ImageView(mContext);  
 ivEmoij.setImageDrawable(drawable);  
 toast.setView(ivEmoij);  
 toast.show();  
 }  
  
 private void randomizeEmojis(View rootView) {  
 for (int id : *ids*) {  
 ImageView iv = rootView.findViewById(id);  
 int randomIndex = (int) (Math.*random*() \* *allDrawables*.length);  
 iv.setImageResource(*allDrawables*[randomIndex]);  
 }  
 }  
  
}

Kết quả:

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