Lab1 Bài 1

PHẦN I – TẠO DỰ ÁN “Thelabth1”

Bước 1: Mở Androi Studio, vào file, chọn New project, chọn Empty Activity:

A screenshot of a computer

AI-generated content may be incorrect.

Đặt tên cho dự án là Thelabth1

A screenshot of a computer

AI-generated content may be incorrect.

PHẦN II – THIẾT KẾ GIAO DIỆN (activity\_main.xml)

Bước 2: Trong activity\_main.xml, sửa lại giao diện như sau.

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.A screenshot of a computer program

AI-generated content may be incorrect.

PHẦN III – CODE MAINACTIVITY

A screenshot of a computer program

AI-generated content may be incorrect.

A computer screen shot of a code

AI-generated content may be incorrect.

Và đây là kết quả khi chạy 2 đoạn code trên

A white background with pink and black lines

AI-generated content may be incorrect.

**PHẦN IV – QUẢN LÝ CHUỖI & MÀU TRONG TÀI NGUYÊN**

Đầu tiên ta tiến hành vào file: app/src/main/values/strings.xml để thêm đoạn code

A screenshot of a computer code

AI-generated content may be incorrect.

Và thay trong activity\_main.xml các chuỗi trực tiếp thành:

A screenshot of a computer program

AI-generated content may be incorrect.

Kết quả sau khi chạy app

A white background with pink and black lines

AI-generated content may be incorrect.

Kết quả của phép cộng diễn ra chính xác, sau đây ta tiến hành cập nhật lại 2 file activity\_main.xml va activity.java để app thực hiện thêm những phép tính trừ, nhân, chia.

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer code

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer program

AI-generated content may be incorrect.

Kết quả cuối cùng

A screenshot of a cell phone

AI-generated content may be incorrect.

A screenshot of a cell phone

AI-generated content may be incorrect.

A screenshot of a cell phone

AI-generated content may be incorrect.

A screenshot of a cell phone

AI-generated content may be incorrect.

Lab 1 bài 2

Đầu tiên ta sẽ tạo Activity mới tách riêng với bài máy tính

A screenshot of a computer

AI-generated content may be incorrect.

Đặt tên cho Activity mới là RandomActivity

A screenshot of a computer

AI-generated content may be incorrect.

Sau đó mở file res/layout/activity\_random.xml và code

A screenshot of a computer program

AI-generated content may be incorrect.

Tiếp theo là code xử lý random trong file java/com/example/thelabth1/RandomActivity.java

A screenshot of a computer program

AI-generated content may be incorrect.

Kèm theo 6 hình ảnh các mặt của xúc xắc

A screenshot of a computer

AI-generated content may be incorrect.

Kết quả khi chạy 6 lần khác nhau

A white dice with black dots

AI-generated content may be incorrect.A white dice with black dots

AI-generated content may be incorrect.A white dice with black dots

AI-generated content may be incorrect.

A white dice with black circles

AI-generated content may be incorrect.A white dice with black dots

AI-generated content may be incorrect.A screenshot of a game

AI-generated content may be incorrect.

Lab 1 bài 3

Đầu tiên ta vẫn tiếp tục tạo 1 Activity mới tên là CallSmsActivity

A screenshot of a computer

AI-generated content may be incorrect.

Tiếp theo tiến hành thiết kế giao diện cho activity\_call\_sms.xml

A screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer code

AI-generated content may be incorrect.

Tiếp theo sẽ đến code xử lý CallSmsActivity.java

A screenshot of a computer code

AI-generated content may be incorrect.

A screenshot of a computer code

AI-generated content may be incorrect.

Kết quả đạt được:

A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a phone

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.A white background with black dots

AI-generated content may be incorrect.

Lab2

1. Code

java/com/example/sithlab8/

1. AndroiManifest

<manifest package="com.example.sithlab8"  
 xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <application  
 android:allowBackup="true"  
 android:label="@string/app\_name"  
 android:theme="@style/Theme.SithLab7">  
  
<activity android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN"/>  
 <category android:name="android.intent.category.LAUNCHER"/>  
 </intent-filter>  
 </activity>  
  
 <activity  
 android:name=".M000ActSplash"  
 android:noHistory="true"  
 android:theme="@style/Full\_Screen" />  
  
<activity android:name=".M001ActProfile" />  
 </application>  
</manifest>

1. MainActivity.java

package com.example.sithlab8;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
 @Override protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_main*);  
  
 Button btnSplash = findViewById(R.id.*btn\_open\_splash*);  
 Button btnProfile = findViewById(R.id.*btn\_open\_profile*);  
  
 btnSplash.setOnClickListener(v ->  
 startActivity(new Intent(this, M000ActSplash.class)));  
  
 btnProfile.setOnClickListener(v ->  
 startActivity(new Intent(this, M001ActProfile.class)));  
 }  
}

1. M000ActSplash.java

package com.example.sithlab8;  
  
import android.graphics.drawable.Drawable;  
import android.os.Bundle;  
import android.os.Handler;  
import android.widget.ImageView;  
import android.widget.LinearLayout;  
  
import androidx.activity.EdgeToEdge;  
import androidx.annotation.DrawableRes;  
import androidx.annotation.Nullable;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.content.ContextCompat;  
  
import java.util.Random;  
  
public class M000ActSplash extends AppCompatActivity {  
  
 private final int[] COLOR\_IDS = new int[]{  
 R.color.*splash\_1*, R.color.*splash\_2*, R.color.*splash\_3*, R.color.*splash\_4* };  
  
 private final @DrawableRes int[] ICON\_IDS = new int[]{  
 R.drawable.*ic\_penguin*, R.drawable.*ic\_cat*, R.drawable.*ic\_dog* };  
  
 @Override  
 protected void onCreate(@Nullable Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*m000\_act\_splash*);  
  
 LinearLayout splashRoot = findViewById(R.id.*splash\_root*);  
 ImageView imgIcon = findViewById(R.id.*img\_icon*);  
  
 Random rd = new Random();  
  
 *// Random màu nền* int colorId = COLOR\_IDS[rd.nextInt(COLOR\_IDS.length)];  
 splashRoot.setBackgroundColor(ContextCompat.*getColor*(this, colorId));  
  
 *// Random icon* int iconId = ICON\_IDS[rd.nextInt(ICON\_IDS.length)];  
 Drawable icon = ContextCompat.*getDrawable*(this, iconId);  
 imgIcon.setImageDrawable(icon);  
  
 *// Bật overlay loading 2s (Bài 2)* findViewById(R.id.*loading\_view*).setVisibility(android.view.View.*VISIBLE*);  
 new Handler().postDelayed(() ->  
 findViewById(R.id.*loading\_view*).setVisibility(android.view.View.*GONE*), 2000);  
 }  
}

1. M001ActProfile.java

package com.example.sithlab8;  
  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.widget.ImageView;  
import android.widget.TextView;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class M001ActProfile extends AppCompatActivity {  
  
 @Override protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*m001\_act\_profile*);  
  
 ImageView btnCall1 = findViewById(R.id.*btn\_call1*);  
 TextView tvPhone1 = findViewById(R.id.*tv\_phone1*);  
 TextView tvPhone2 = findViewById(R.id.*tv\_phone2*);  
  
 ImageView btnEmail = findViewById(R.id.*btn\_email*);  
 TextView tvEmail = findViewById(R.id.*tv\_email*);  
  
 btnCall1.setOnClickListener(v -> {  
 String phone = tvPhone1.getText().toString();  
 Intent i = new Intent(Intent.*ACTION\_DIAL*, Uri.*parse*("tel:" + phone));  
 startActivity(i);  
 });  
  
 tvPhone2.setOnClickListener(v -> {  
 String phone = tvPhone2.getText().toString();  
 Intent i = new Intent(Intent.*ACTION\_DIAL*, Uri.*parse*("tel:" + phone));  
 startActivity(i);  
 });  
  
 btnEmail.setOnClickListener(v -> {  
 String email = tvEmail.getText().toString();  
 Intent i = new Intent(Intent.*ACTION\_SENDTO*, Uri.*parse*("mailto:" + email));  
 startActivity(Intent.*createChooser*(i, "Send email"));  
 });  
 }  
}

layout/

1. activity\_main.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="24dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <Button  
 android:id="@+id/btn\_open\_splash"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="@string/go\_splash"/>  
  
 <View  
 android:layout\_width="match\_parent"  
 android:layout\_height="12dp"/>  
  
 <Button  
 android:id="@+id/btn\_open\_profile"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="@string/go\_profile"/>  
</LinearLayout>

1. m000\_act\_splash.xml

*<?*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">  
<LinearLayout  
 android:id="@+id/splash\_root"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center"  
 android:orientation="vertical">  
  
 <ImageView  
 android:id="@+id/img\_icon"  
 android:layout\_width="128dp"  
 android:layout\_height="128dp"  
 android:src="@drawable/ic\_penguin" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:fontFamily="sans-serif-light"  
 android:text="@string/app\_name"  
 android:textSize="24sp"  
 android:textColor="@color/white"/>  
 </LinearLayout>  
<include layout="@layout/item\_loading"/>  
</FrameLayout>

1. item\_loading.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:background="#BF000000"  
 android:gravity="center"  
 android:orientation="vertical"  
 android:visibility="gone"  
 android:id="@+id/loading\_view">  
  
 <ProgressBar  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:indeterminate="true"  
 android:indeterminateDrawable="@drawable/progress\_circular" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:fontFamily="sans-serif-light"  
 android:text="@string/txt\_loading"  
 android:textColor="@color/white"  
 android:textSize="18sp"  
 android:layout\_marginTop="12dp" />  
  
</LinearLayout>

1. m001\_act\_profile.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"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@color/gray\_light"  
 android:orientation="vertical">  
  
 <FrameLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="350dp">  
  
 <ImageView  
 android:layout\_width="match\_parent"  
 android:layout\_height="300dp"  
 android:scaleType="centerCrop"  
 android:src="@drawable/bg\_avatar" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="bottom"  
 android:layout\_marginStart="70dp"  
 android:layout\_marginBottom="90dp"  
 android:fontFamily="sans-serif"  
 android:text="@string/txt\_name"  
 android:textColor="@color/white"  
 android:textSize="40sp" />  
  
 <ImageView  
 android:id="@+id/btn\_star"  
 android:layout\_width="80dp"  
 android:layout\_height="80dp"  
 android:layout\_gravity="end|bottom"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="10dp"  
 android:background="@drawable/bg\_oval"  
 android:padding="20dp"  
 android:src="@android:drawable/btn\_star\_big\_on"  
 app:tint="@color/white" />  
 </FrameLayout>  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="20dp">  
  
 <ImageView  
 android:id="@+id/btn\_call1"  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:padding="10dp"  
 android:src="@android:drawable/ic\_menu\_call"  
 app:tint="@color/indigo" />  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="30dp"  
 android:orientation="vertical">  
  
 <TextView  
 android:id="@+id/tv\_phone1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="@string/txt\_phone1"  
 android:textColor="@color/gray\_dark"  
 android:textSize="20sp" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:text="@string/txt\_title\_mobile"  
 android:textColor="@color/gray\_mid"  
 android:textSize="18sp" />  
  
 <TextView  
 android:id="@+id/tv\_phone2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:text="@string/txt\_phone2"  
 android:textColor="@color/gray\_dark"  
 android:textSize="20sp" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:text="@string/txt\_title\_mobile"  
 android:textColor="@color/gray\_mid"  
 android:textSize="18sp" />  
  
 <View  
 android:layout\_width="match\_parent"  
 android:layout\_height="0.5dp"  
 android:layout\_marginTop="30dp"  
 android:background="@color/gray\_mid" />  
 </LinearLayout>  
 </TableRow>  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="20dp">  
  
 <ImageView  
 android:id="@+id/btn\_email"  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:padding="10dp"  
 android:src="@android:drawable/ic\_dialog\_email"  
 app:tint="@color/indigo" />  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginStart="30dp"  
 android:orientation="vertical">  
  
 <TextView  
 android:id="@+id/tv\_email"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="@string/txt\_email"  
 android:textColor="@color/gray\_dark"  
 android:textSize="20sp" />  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:text="@string/txt\_title\_mobile"  
 android:textColor="@color/gray\_mid"  
 android:textSize="18sp" />  
 </LinearLayout>  
 </TableRow>  
</LinearLayout>

drawable/

1. bg\_oval.xml

*<?*xml version="1.0" encoding="utf-8"*?>*<shape xmlns:android="http://schemas.android.com/apk/res/android" android:shape="oval">  
 <solid android:color="#FF4181"/>  
</shape>

1. ic\_penguin

A black penguin with a white background

AI-generated content may be incorrect.

1. ic\_ cat

A cat with a sad face

AI-generated content may be incorrect.

1. ic\_dog

A cartoon of a dog

AI-generated content may be incorrect.

1. bg\_avatar

A cartoon of a child

AI-generated content may be incorrect.

1. Hình ảnh kết quả

Bài 1: Mỗi 1 lần chạy app là 1 màu nền khác nhau

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

BÀI 2 – Custom ProgressBar overlay (Loading)

A screenshot of a computer

AI-generated content may be incorrect.

Bài 3: Lập trình để khi bấm vào icon thì chuyển về cuộc gọi, sử dụng Intent.

A screenshot of a computer

AI-generated content may be incorrect.



Bài tập 4: Tạo màn hình chính MainActivity để chuyển qua và chuyển về giữa các màn hình ở các phần luyện tập.

A screenshot of a computer

AI-generated content may be incorrect.