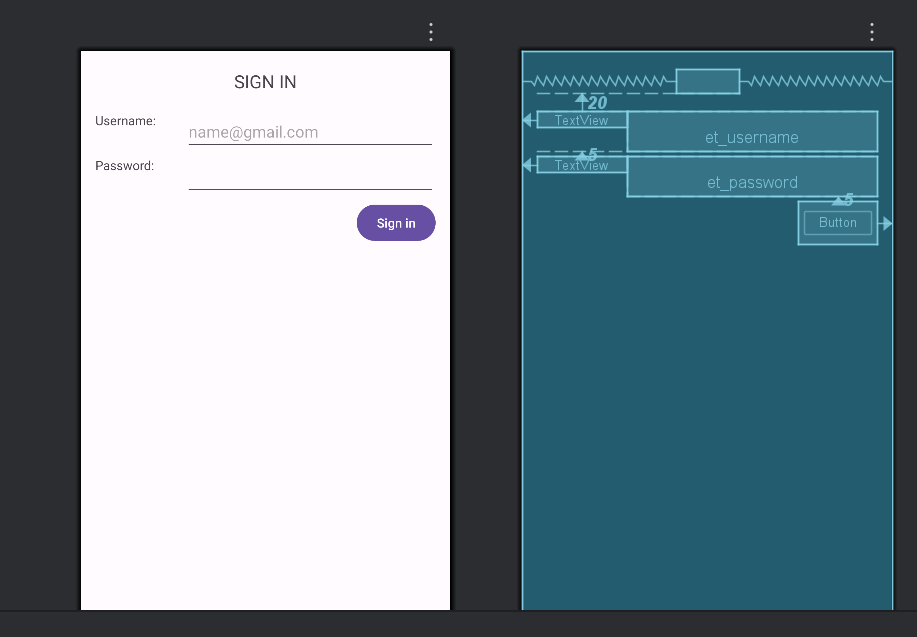
**BÀI TẬP LÝ THUYẾT 2**

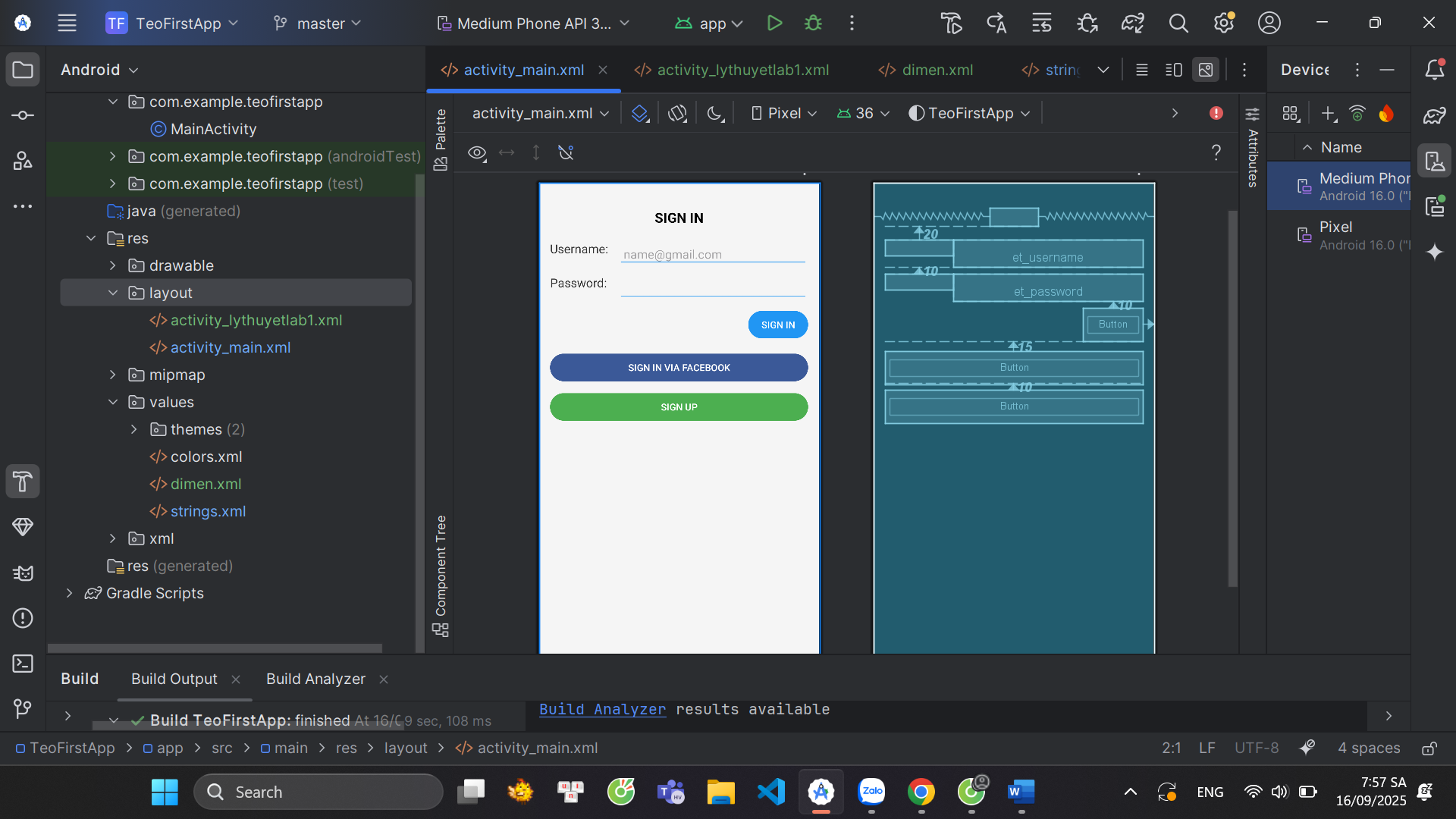
**1. Làm bằng RelativeLayout**

**Hình ban đầu :**



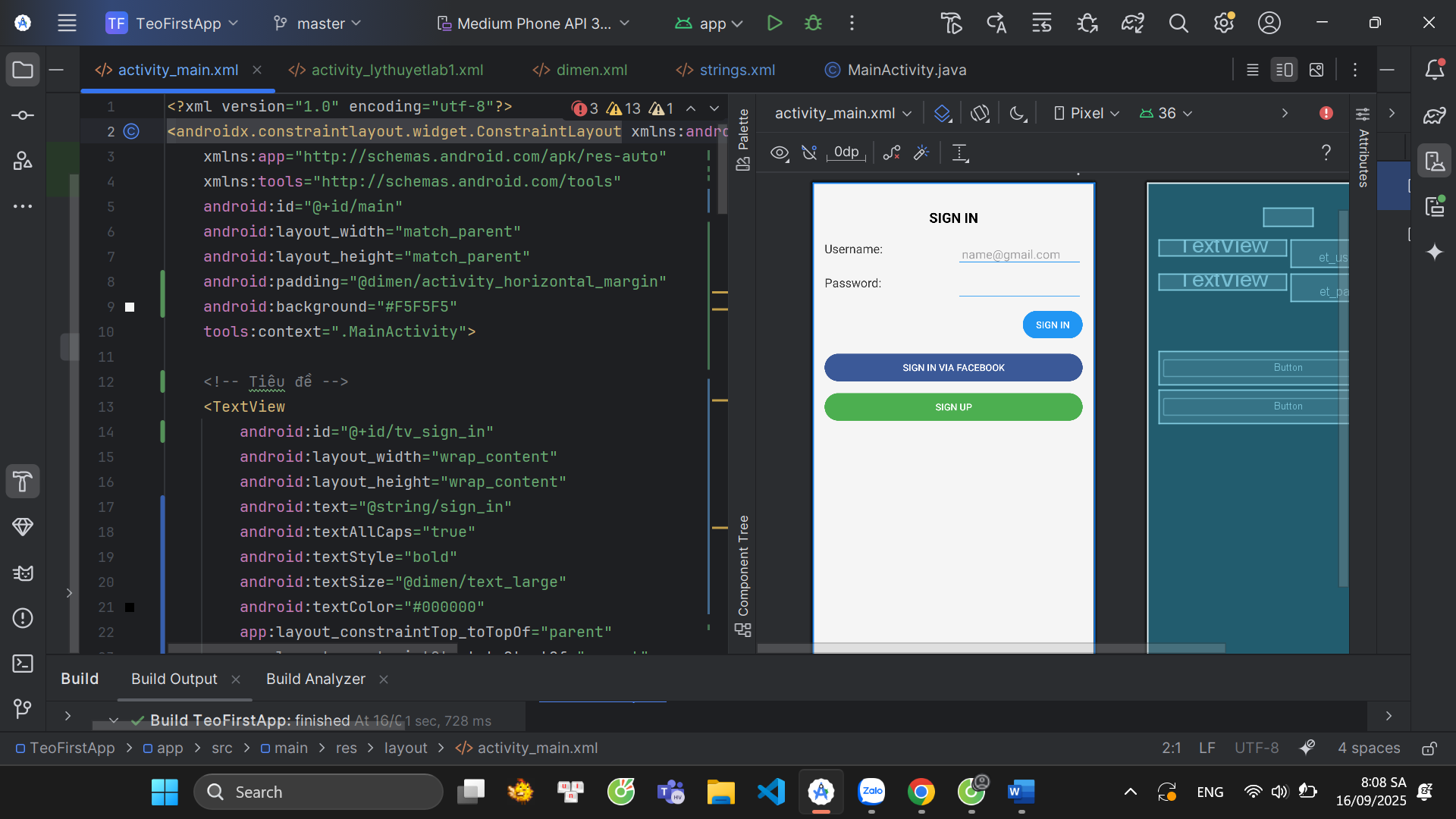
**Chỉnh code activity\_main.xml :**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:paddingLeft="@dimen/activity\_horizontal\_margin"  
 android:paddingRight="@dimen/activity\_horizontal\_margin"  
 android:paddingTop="@dimen/activity\_vertical\_margin"  
 android:paddingBottom="@dimen/activity\_vertical\_margin"  
 android:background="#F5F5F5">  
  
 <!-- Tiêu đề -->  
 <TextView  
 android:id="@+id/tv\_sign\_in"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/sign\_in"  
 android:textAllCaps="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="@dimen/margin\_basex4"  
 android:textSize="@dimen/text\_large"  
 android:textStyle="bold"  
 android:textColor="#000000" />  
  
 <!-- Username -->  
 <TextView  
 android:id="@+id/tv\_user\_name"  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="@string/username"  
 android:layout\_below="@id/tv\_sign\_in"  
 android:layout\_marginTop="@dimen/margin\_basex4"  
 android:textSize="@dimen/text\_medium"  
 android:textColor="#333333" />  
  
 <EditText  
 android:id="@+id/et\_username"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="name@gmail.com"  
 android:layout\_alignTop="@id/tv\_user\_name"  
 android:layout\_toRightOf="@id/tv\_user\_name"  
 android:backgroundTint="#2196F3"  
 android:padding="8dp" />  
  
 <!-- Password -->  
 <TextView  
 android:id="@+id/tv\_password"  
 android:layout\_width="100dp"  
 android:layout\_height="wrap\_content"  
 android:text="@string/password"  
 android:layout\_below="@id/et\_username"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 android:textSize="@dimen/text\_medium"  
 android:textColor="#333333" />  
  
 <EditText  
 android:id="@+id/et\_password"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword"  
 android:layout\_alignTop="@id/tv\_password"  
 android:layout\_toRightOf="@id/tv\_password"  
 android:backgroundTint="#2196F3"  
 android:padding="8dp" />  
  
 <!-- Nút Sign In -->  
 <Button  
 android:id="@+id/btn\_sign\_in"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/et\_password"  
 android:layout\_alignParentRight="true"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 android:paddingLeft="@dimen/margin\_basex3"  
 android:paddingRight="@dimen/margin\_basex3"  
 android:text="@string/sign\_in"  
 android:textAllCaps="true"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#2196F3" />  
  
 <!-- Nút Sign In via Facebook -->  
 <Button  
 android:id="@+id/btn\_sign\_in\_fb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/btn\_sign\_in"  
 android:layout\_marginTop="@dimen/margin\_basex3"  
 android:text="SIGN IN VIA FACEBOOK"  
 android:textAllCaps="true"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#3b5998" />  
  
 <!-- Nút Sign Up -->  
 <Button  
 android:id="@+id/btn\_sign\_up"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/btn\_sign\_in\_fb"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 android:text="@string/signup"  
 android:textAllCaps="true"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#4CAF50" />  
  
</RelativeLayout>



**2. Làm bằng ContraintLayout**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:padding="@dimen/activity\_horizontal\_margin"  
 android:background="#F5F5F5"  
 tools:context=".MainActivity">  
  
 <!-- Tiêu đề -->  
 <TextView  
 android:id="@+id/tv\_sign\_in"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/sign\_in"  
 android:textAllCaps="true"  
 android:textStyle="bold"  
 android:textSize="@dimen/text\_large"  
 android:textColor="#000000"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:layout\_marginTop="@dimen/margin\_basex4"/>  
  
 <!-- Username Label -->  
 <TextView  
 android:id="@+id/tv\_user\_name"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:text="@string/username"  
 android:textSize="@dimen/text\_medium"  
 android:textColor="#333333"  
 app:layout\_constraintTop\_toBottomOf="@id/tv\_sign\_in"  
 app:layout\_constraintStart\_toStartOf="parent"  
 android:layout\_marginTop="@dimen/margin\_basex4"  
 android:layout\_marginEnd="8dp"  
 app:layout\_constraintEnd\_toStartOf="@id/et\_username"/>  
  
 <!-- Username Input -->  
 <EditText  
 android:id="@+id/et\_username"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:hint="name@gmail.com"  
 android:backgroundTint="#2196F3"  
 android:padding="8dp"  
 app:layout\_constraintStart\_toEndOf="@id/tv\_user\_name"  
 app:layout\_constraintTop\_toTopOf="@id/tv\_user\_name"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
 <!-- Password Label -->  
 <TextView  
 android:id="@+id/tv\_password"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:text="@string/password"  
 android:textSize="@dimen/text\_medium"  
 android:textColor="#333333"  
 app:layout\_constraintTop\_toBottomOf="@id/et\_username"  
 app:layout\_constraintStart\_toStartOf="parent"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 app:layout\_constraintEnd\_toStartOf="@id/et\_password"  
 android:layout\_marginEnd="8dp"/>  
  
 <!-- Password Input -->  
 <EditText  
 android:id="@+id/et\_password"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword"  
 android:backgroundTint="#2196F3"  
 android:padding="8dp"  
 app:layout\_constraintStart\_toEndOf="@id/tv\_password"  
 app:layout\_constraintTop\_toTopOf="@id/tv\_password"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
 <!-- Sign In Button -->  
 <Button  
 android:id="@+id/btn\_sign\_in"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/sign\_in"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#2196F3"  
 android:paddingLeft="@dimen/margin\_basex3"  
 android:paddingRight="@dimen/margin\_basex3"  
 android:textAllCaps="true"  
 app:layout\_constraintTop\_toBottomOf="@id/et\_password"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
 <!-- Sign In via Facebook Button -->  
 <Button  
 android:id="@+id/btn\_sign\_in\_fb"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:text="SIGN IN VIA FACEBOOK"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#3b5998"  
 android:textAllCaps="true"  
 app:layout\_constraintTop\_toBottomOf="@id/btn\_sign\_in"  
 android:layout\_marginTop="@dimen/margin\_basex3"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
 <!-- Sign Up Button -->  
 <Button  
 android:id="@+id/btn\_sign\_up"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:text="@string/signup"  
 android:textColor="#FFFFFF"  
 android:backgroundTint="#4CAF50"  
 android:textAllCaps="true"  
 app:layout\_constraintTop\_toBottomOf="@id/btn\_sign\_in\_fb"  
 android:layout\_marginTop="@dimen/margin\_basex2"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>



**🔥 Điểm khác biệt so với RelativeLayout**

* Dùng ConstraintLayout → giảm việc lồng nhiều layout, dễ căn chỉnh hơn.
* TextView (label) nằm cạnh EditText (input), canh chuẩn bằng constraint.
* Các nút Sign In, Sign In via Facebook, Sign Up xếp dọc nhau, full width đẹp mắt.