

# BR Manual para compilar

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**Este manual foi feito para você que alterou, melhorou ou deseja implementar um RASP em sua aplicação, mas está enfrentando problemas com isso.**

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## Arrumando o gradle do android studio:

O problema mais comum ao compilar no Android Studio é que, às vezes, o Gradle precisa que você ajuste algumas configurações para funcionar corretamente.

### passo a passo:

- ▼ Primeiro passo:

#### **Abra o arquivo `build.gradle` (nível do projeto):**

Verifique o conteúdo do arquivo `build.gradle` no nível do projeto (geralmente encontrado na raiz do projeto) e certifique-se de que a versão do `Gradle Plugin` está atualizada.

```
// Top-level build file where you can add configuration options common to all sub-projects/modules
buildscript {
    repositories {
        jcenter()
        google()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:7.2.2' ←
    }
}
// NOTE: Do not place your application dependencies here; they belong
// in the individual module build.gradle files
allprojects {
    repositories {
        google()
        jcenter()
    }
}
```

▼ Segundo passo:

Dentro do arquivo `build.gradle` no nível do módulo (geralmente localizado na pasta `app/`), atualize as dependências e a versão do SDK:

```
apply plugin: 'com.android.application'

android {
    compileSdkVersion 34 ←
    defaultConfig {
        applicationId "com.android.insecurebankv2"
        minSdkVersion 21 ←
        targetSdkVersion 34 ←
        versionCode 1 ←
        versionName "1.0" ←
        useLibrary 'org.apache.http.legacy'
    }
    buildTypes {
        release {
            minifyEnabled true ←
            proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
        }
    }
}

android{} > defaultConfig()
```

```
22
23 dependencies {
24     implementation fileTree(include: ['*.jar'], dir: 'libs')
25     // Dependências de terceiros
26     implementation 'androidx.appcompat:appcompat:1.6.1' ↖
27     implementation 'com.google.android.gms:play-services:12.0.1' // Atualizado para uma versão maior
28     implementation 'com.github.marcohc:Toasteroid:2.1.4'
29
30     // Dependências de Teste
31     testImplementation 'junit:junit:4.13.2' // Para testes unitários
32     androidTestImplementation 'androidx.test.ext:junit:1.1.3' // AndroidJUnit para testes de instâncias
33     androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0' // Para testes de UI
34 }
35
36 repositories {
37     maven {
38         url "https://jitpack.io"
39     }
40 }
```

▼ Terceiro passo:

**Corrija o arquivo `gradle-wrapper.properties`:**

Garanta que o wrapper do Gradle também esteja atualizado. O arquivo `gradle-wrapper.properties` deve estar localizado na pasta `gradle/wrapper/`.

```
1 #Mon Sep 23 20:15:31 BRT 2024
2 distributionBase=GRADLE_USER_HOME
3 distributionPath=wrapper/dists
4 distributionUrl=https://services.gradle.org/distributions/gradle-7.5.1-all.zip ↖
5 zipStoreBase=GRADLE_USER_HOME
6 zipStorePath=wrapper/dists
7
```

▼ Quarto passo:

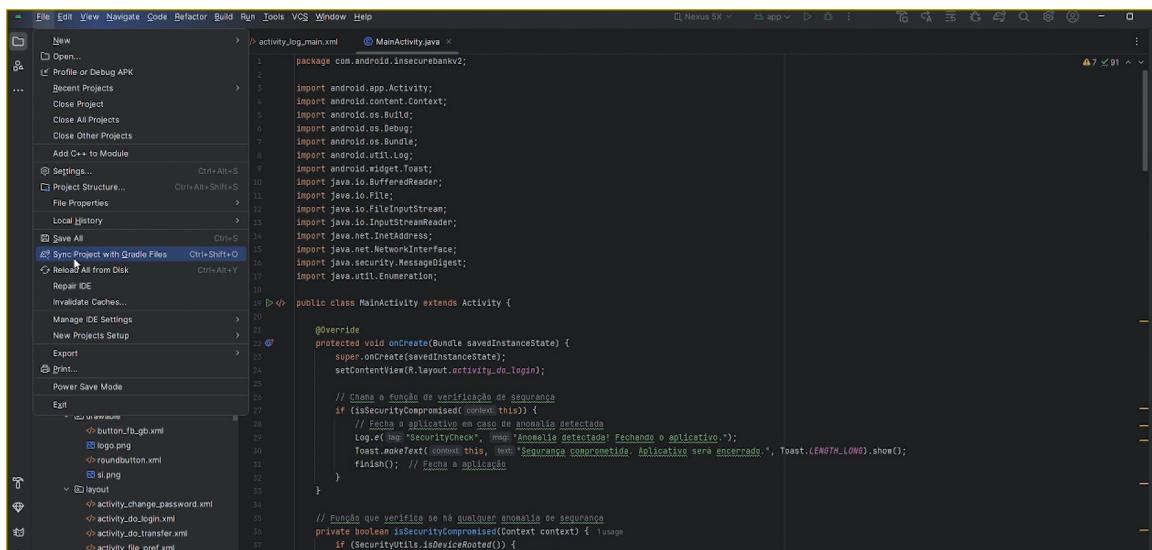
### Sincronize o Gradle:

Após fazer as alterações, volte ao Android Studio e clique em **Sync Now** na barra de notificações do Android Studio para garantir que o Gradle seja atualizado corretamente e o projeto seja sincronizado.

## Compilando:

▼ Siga os passos mostrados nas prints a seguir:

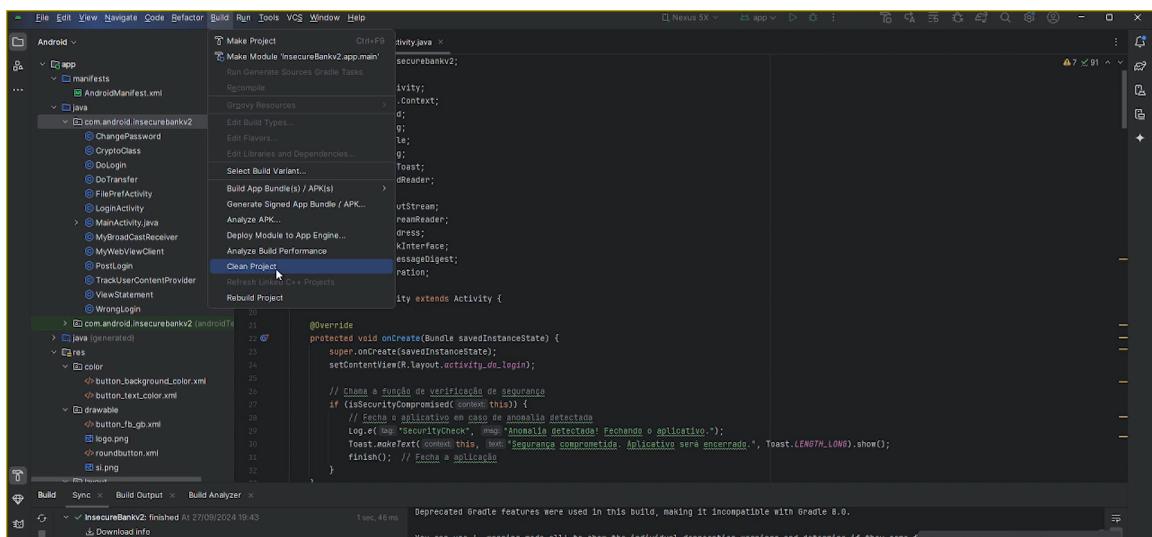
### Primeiro passo:



The screenshot shows the Android Studio interface. The left sidebar displays the project structure with files like activity\_main.xml, MainActivity.java, and various XML resources. The right side shows the code editor with the MainActivity.java file open, containing Java code related to security checks and UI interactions. The top navigation bar includes options like File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, VCS, Window, and Help.

```
File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
New Open... Recent Projects Close Project Close All Projects Close Other Projects Add C++ to Module Settings... Ctrl+Alt+S Project Structure... Ctrl+Alt+Shift+S File Properties Local History Save All Sync Project with Gradle Files Ctrl+Shift+O Reload All from Disk Ctrl+Alt+Y Repair IDE Invalidate Caches... Manage IDE Settings New Projects Setup Export Print... Power Save Mode Exit
activity_main.xml MainActivity.java
1 package com.android.insecurebankv2;
2 import android.app.Activity;
3 import android.content.Context;
4 import android.os.Build;
5 import android.os.Debug;
6 import android.os.Bundle;
7 import android.util.Log;
8 import android.widget.Toast;
9 import java.io.BufferedReader;
10 import java.io.File;
11 import java.io.FileInputStream;
12 import java.io.InputStreamReader;
13 import java.net.InetAddress;
14 import java.net.NetworkInterface;
15 import java.security.MessageDigest;
16 import java.util.Enumeration;
17
18 public class MainActivity extends Activity {
19     @Override
20     protected void onCreate(Bundle savedInstanceState) {
21         super.onCreate(savedInstanceState);
22         setContentView(R.layout.activity_main_login);
23
24         // Chama a função de verificação de segurança
25         if (isSecurityCompromised(context, this)) {
26             // Fecha o aplicativo em caso de anomalia detectada
27             Log.e("tag", "SecurityCheck", "Anomalia detectada! Fechando o aplicativo.");
28             Toast.makeText(context, "Segurança comprometida. Aplicativo será encerrado.", Toast.LENGTH_LONG).show();
29             finish(); // Fecha a aplicação
30         }
31
32         // Função que verifica se não houver anomalias de segurança
33         private boolean isSecurityCompromised(Context context) {
34             if (UsageStatsManager.isDeviceRooted()) {
```

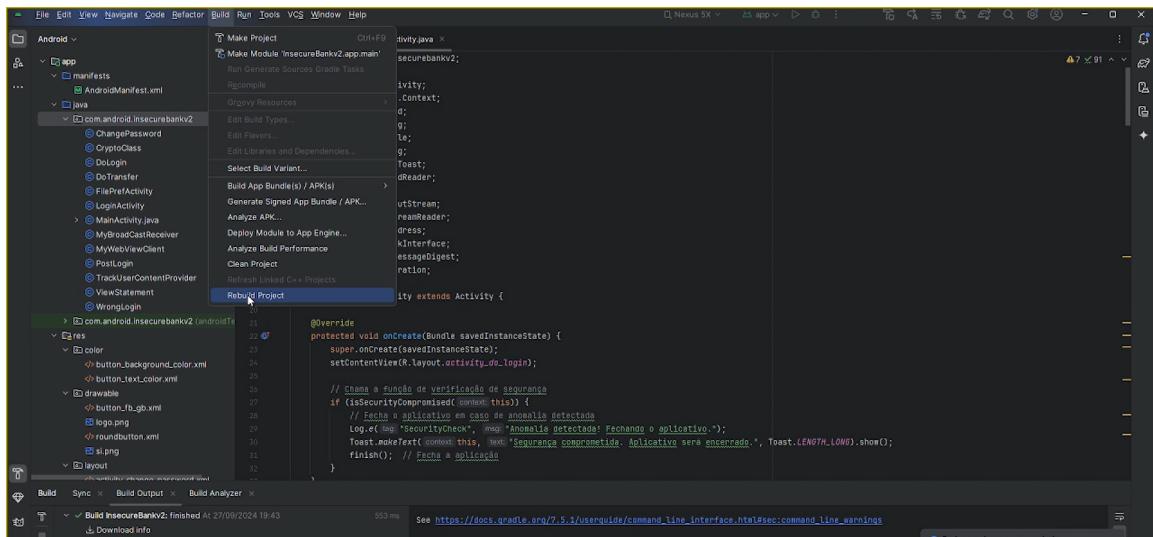
### Segundo passo:



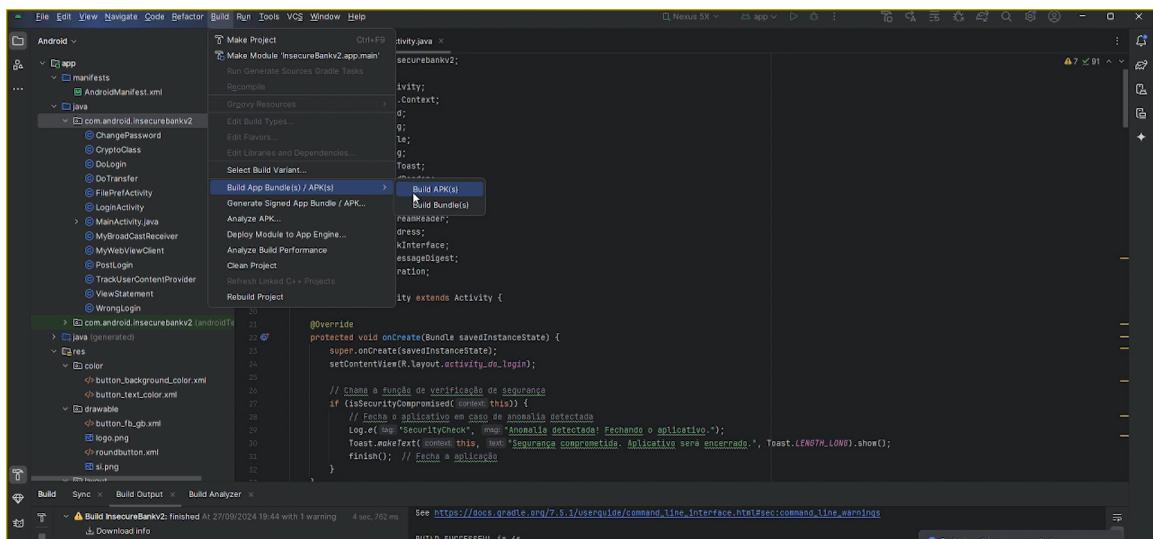
The screenshot shows the Android Studio interface with the focus on the Build menu. The Build menu is open, showing options like Make Project, Make Module, Clean Project, and Rebuild Project. The code editor on the right shows the same MainActivity.java file as the previous screenshot, with the same Java code for security checks and UI logic. The bottom status bar indicates the build was successful.

```
File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
Android app manifests AndroidManifest.xml java com.android.insecurebankv2 ChangePassword CryptoClass DoLogin DoTransfer FilePreActivity LoginActivity Mainactivity.java MyBroadcastReceiver MyWebViewClient PostLogin TrackUserContentProvider ViewStatement WrongLogin
activity_main.xml MainActivity.java
1 package com.android.insecurebankv2;
2 import android.app.Activity;
3 import android.content.Context;
4 import android.os.Bundle;
5 import android.util.Log;
6 import android.widget.Toast;
7 import java.io.BufferedReader;
8 import java.io.File;
9 import java.io.FileInputStream;
10 import java.io.InputStreamReader;
11 import java.net.InetAddress;
12 import java.net.NetworkInterface;
13 import java.security.MessageDigest;
14 import java.util.Enumeration;
15
16 public class MainActivity extends Activity {
17     @Override
18     protected void onCreate(Bundle savedInstanceState) {
19         super.onCreate(savedInstanceState);
20         setContentView(R.layout.activity_main_login);
21
22         // Chama a função de verificação de segurança
23         if (isSecurityCompromised(context, this)) {
24             // Fecha o aplicativo em caso de anomalia detectada
25             Log.e("tag", "SecurityCheck", "Anomalia detectada! Fechando o aplicativo.");
26             Toast.makeText(context, "Segurança comprometida. Aplicativo será encerrado.", Toast.LENGTH_LONG).show();
27             finish(); // Fecha a aplicação
28         }
29
30         // Função que verifica se não houver anomalias de segurança
31         private boolean isSecurityCompromised(Context context) {
32             if (UsageStatsManager.isDeviceRooted()) {
```

Terceiro passo:



Quarto passo:



## US Manual to compile

This manual was created for those who have modified, improved, or want to implement a RASP

**in their application but are encountering issues with it.**

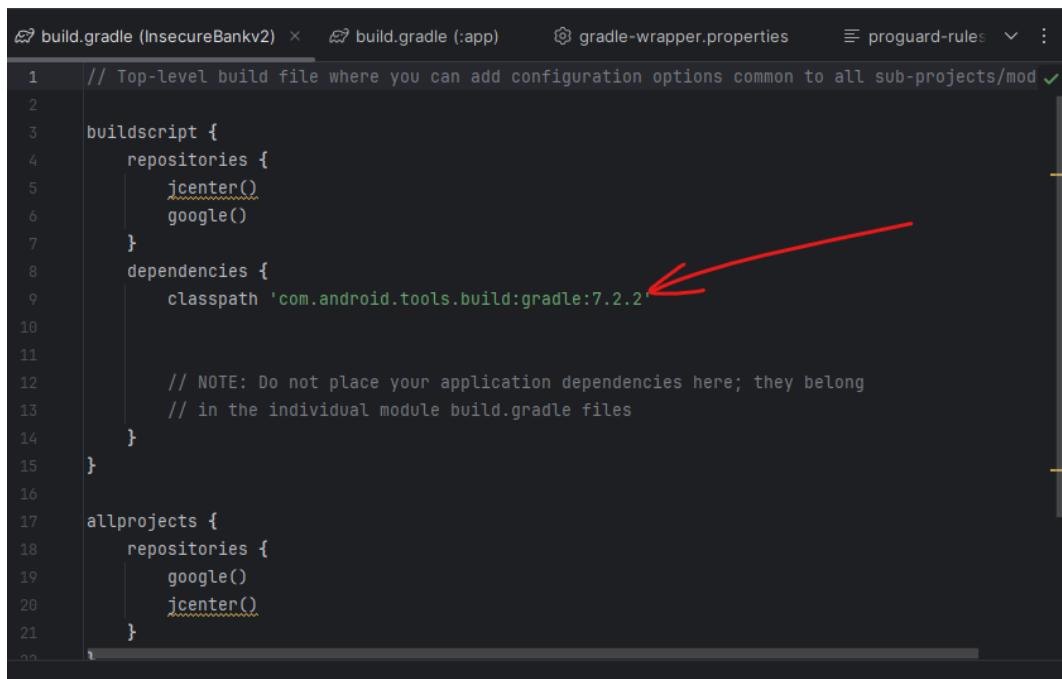
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## **Fixing android studio gradle:**

### **▼ First step:**

**Open the file `build.gradle` (project level):**

Check the file contents `build.gradle` at the project level (usually found in the project root) and ensure that the version of `Gradle Plugin` is updated



```
// Top-level build file where you can add configuration options common to all sub-projects/modules.
buildscript {
    repositories {
        jcenter()
        google()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:7.2.2' // Red arrow points here
    }
}
// NOTE: Do not place your application dependencies here; they belong
// in the individual module build.gradle files
allprojects {
    repositories {
        google()
        jcenter()
    }
}
```

### **▼ Second step:**

Inside the file `build.gradle` at the module level (usually located in the folder `app/`), update dependencies and SDK version:

```
apply plugin: 'com.android.application'

android {
    compileSdkVersion 34
    defaultConfig {
        applicationId "com.android.insecurebankv2"
        minSdkVersion 21
        targetSdkVersion 34
        versionCode 1
        versionName "1.0"
        useLibrary 'org.apache.http.legacy'
    }
    buildTypes {
        release {
            minifyEnabled true
            proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
        }
    }
}

dependencies {
    implementation fileTree(include: ['*.jar'], dir: 'libs')
    // Dependências de terceiros
    implementation 'androidx.appcompat:appcompat:1.6.1'
    implementation 'com.google.android.gms:play-services:12.0.1' // Atualizado para uma versão maior
    implementation 'com.github.marcohc>Toasteroid:2.1.4'

    // Dependências de Teste
    testImplementation 'junit:junit:4.13.2' // Para testes unitários
    androidTestImplementation 'androidx.test.ext:junit:1.1.3' // AndroidJUnit para testes de instâncias
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0' // Para testes de UI
}

repositories {
    maven {
        url "https://jitpack.io"
    }
}
```

```
dependencies {
    implementation fileTree(include: ['*.jar'], dir: 'libs')
    // Dependências de terceiros
    implementation 'androidx.appcompat:appcompat:1.6.1'
    implementation 'com.google.android.gms:play-services:12.0.1' // Atualizado para uma versão maior
    implementation 'com.github.marcohc>Toasteroid:2.1.4'

    // Dependências de Teste
    testImplementation 'junit:junit:4.13.2' // Para testes unitários
    androidTestImplementation 'androidx.test.ext:junit:1.1.3' // AndroidJUnit para testes de instâncias
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0' // Para testes de UI

}

repositories {
    maven {
        url "https://jitpack.io"
    }
}
```

### ▼ Third step:

Ensure your Gradle wrapper is also up to date. The file `gradle-wrapper.properties` must be located in the folder `gradle/wrapper/`.

```
build.gradle (InsecureBankv2) build.gradle (:app) gradle-wrapper.properties proguard-rules :  
1 #Mon Sep 23 20:15:31 BRT 2024  
2 distributionBase=GRADLE_USER_HOME  
3 distributionPath=wrapper/dists  
4 distributionUrl=https://services.gradle.org/distributions/gradle-7.5.1-all.zip  
5 zipStoreBase=GRADLE_USER_HOME  
6 zipStorePath=wrapper/dists  
7
```

▼ **Fourth step:**

**Sync Gradle:**

After making your changes, go back to Android Studio and click

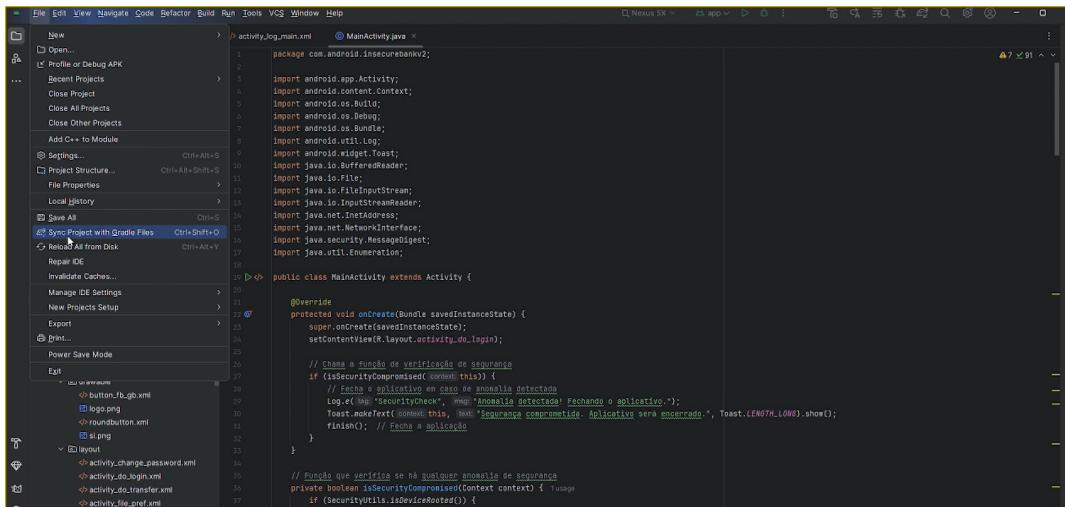
**Sync Now** in the Android Studio notification bar to ensure Gradle is updated correctly and your project is synced.

## Compiling:

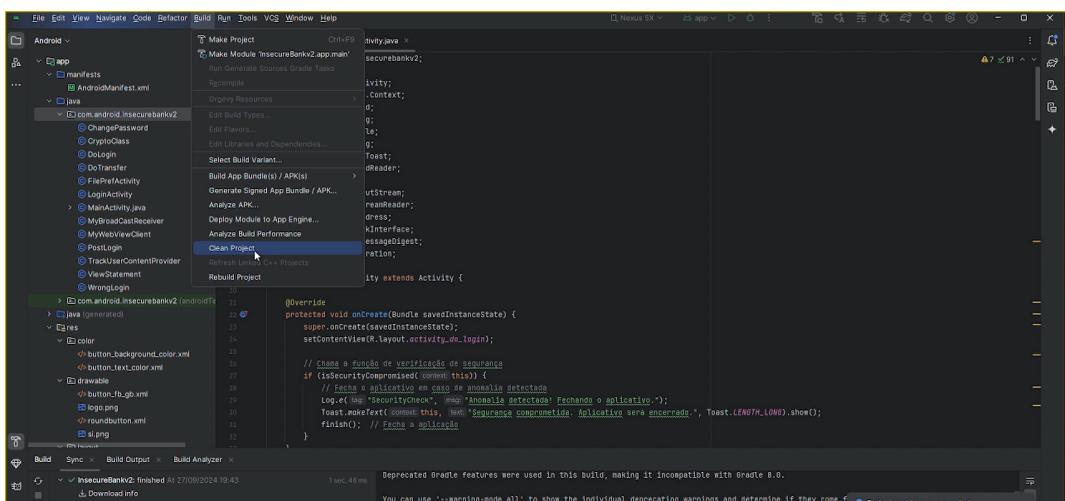


▼ Follow the steps shown in the screenshots below:

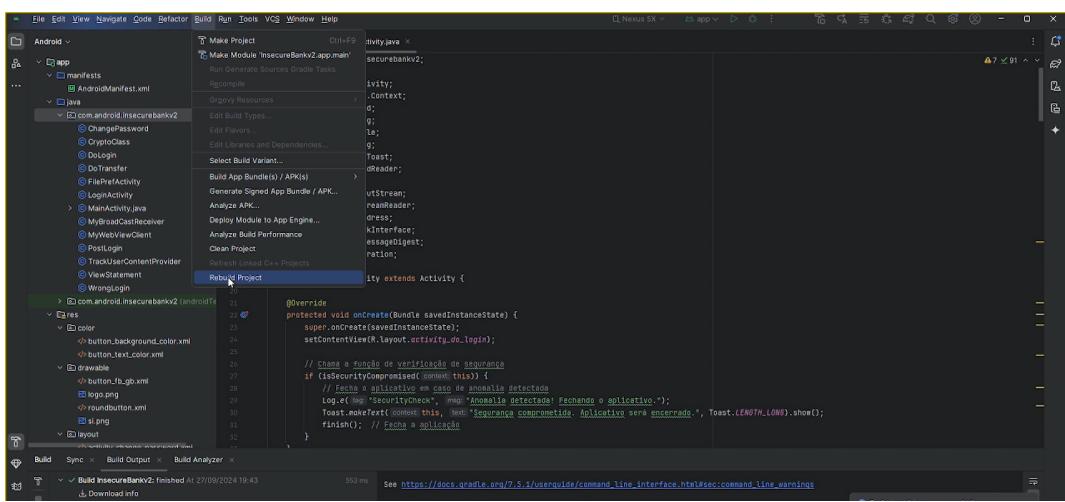
First step:



## Second step:



### Third step:



## Fourth step:

