nicio**ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL**

**FACULTAD DE ELECTRICIDAD Y COMPUTACIÓN**

**Materia:** Aplicaciones Móviles y Servicios Telemáticos **Paralelo:** 1

**Docente:** Ing. Adriana Collaguazo

**Grupo:** 1

**Integrantes:**

* Dayse Joselyne Maroto Lema

**Fecha de Inicio:** 13 de Febrero del 2021

**Fecha de Fin:** 13 de Febrero del 2021

**Informe de la Tercera Evaluación Práctica**

**Enlace de Github:**

<https://github.com/dmaroto98/AMST_3EP_Maroto.git>

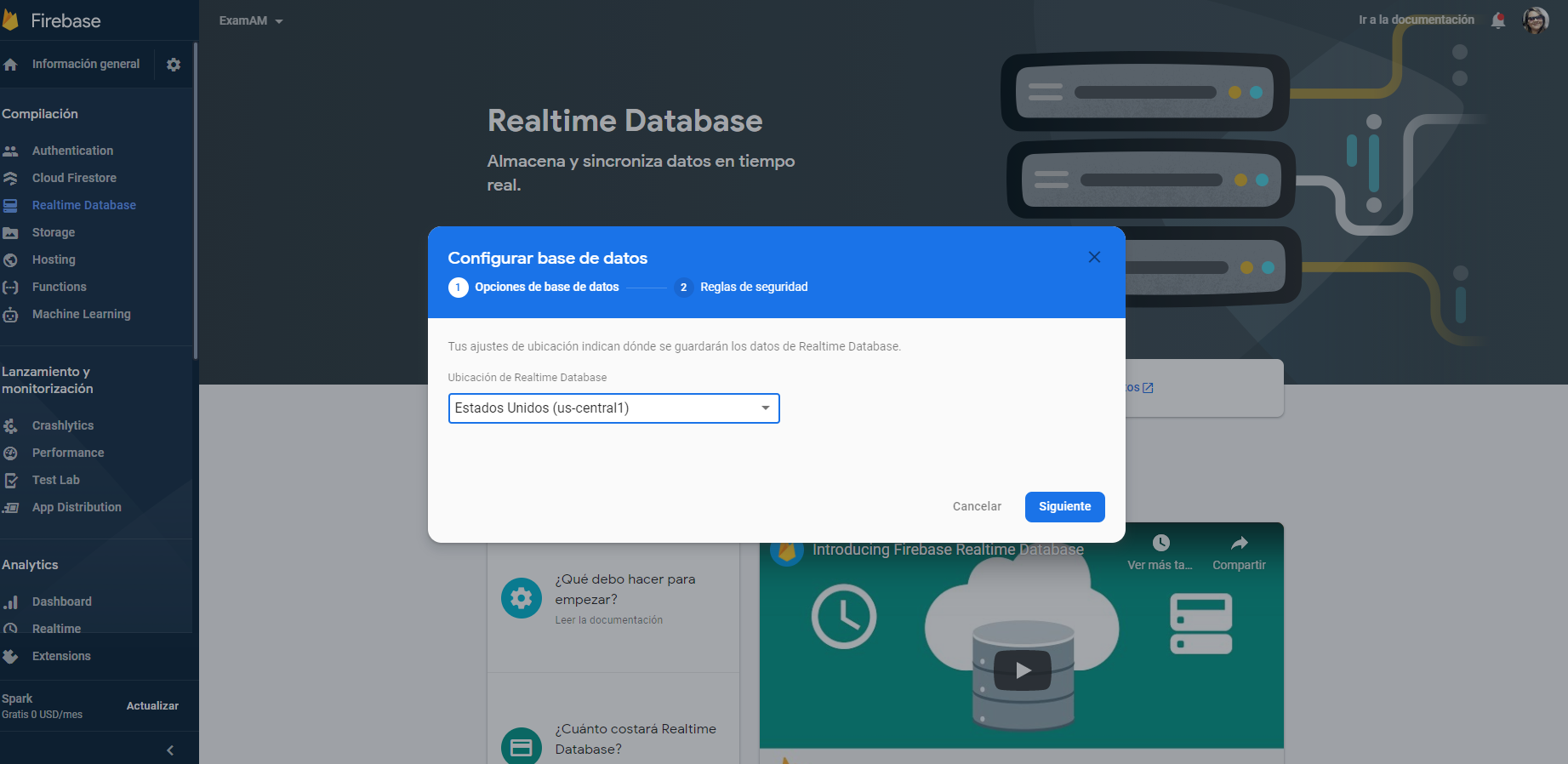
Enlace del Video:

<https://espolec-my.sharepoint.com/:f:/g/personal/dmaroto_espol_edu_ec/EiBWl0Rju3VJlWANjH89DNkBH3OAxVeXpfR4mC6qfbVo8Q?e=taO3xP>

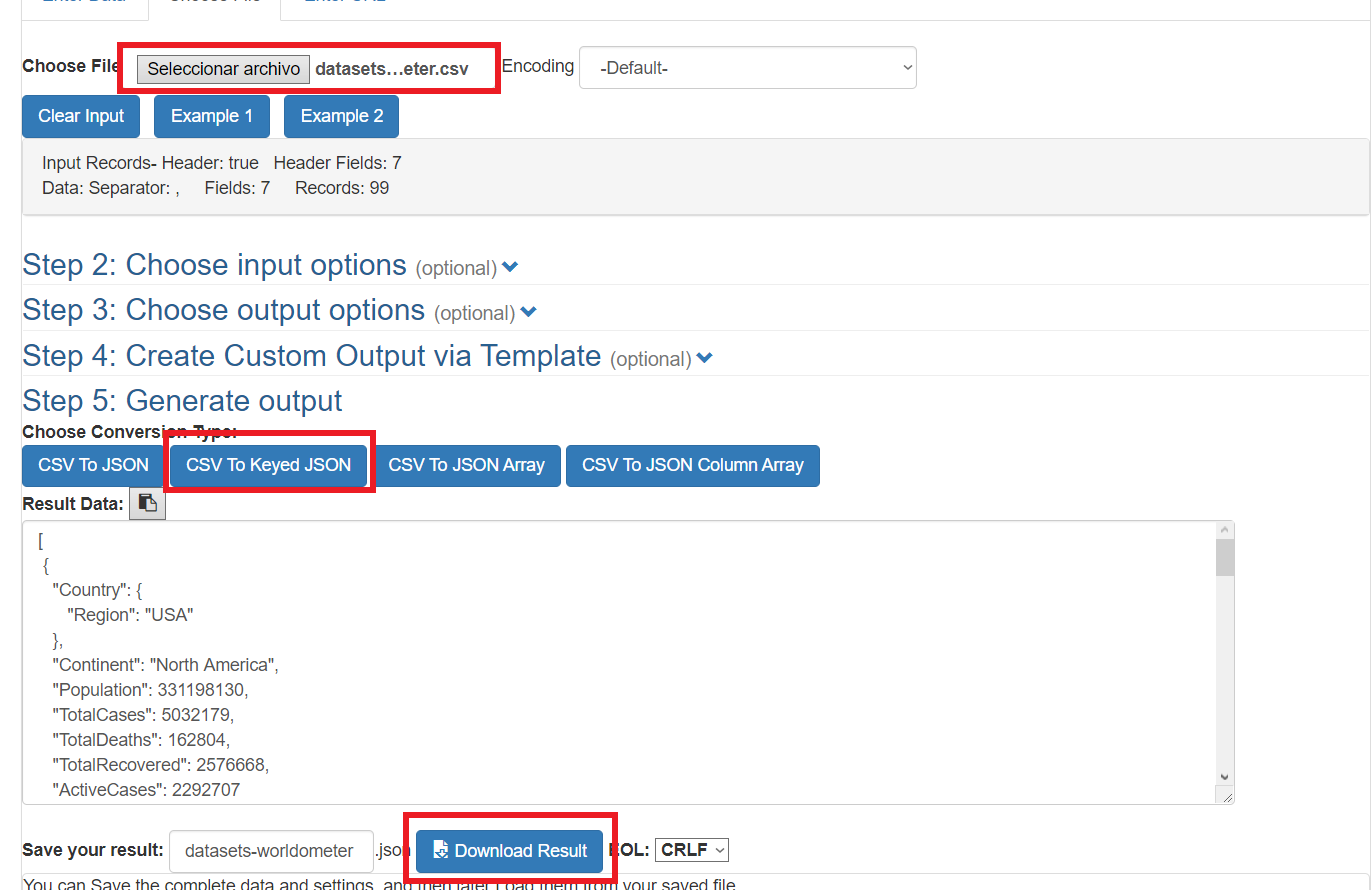
# Resultados de las actividades

## BASES DE DATOS

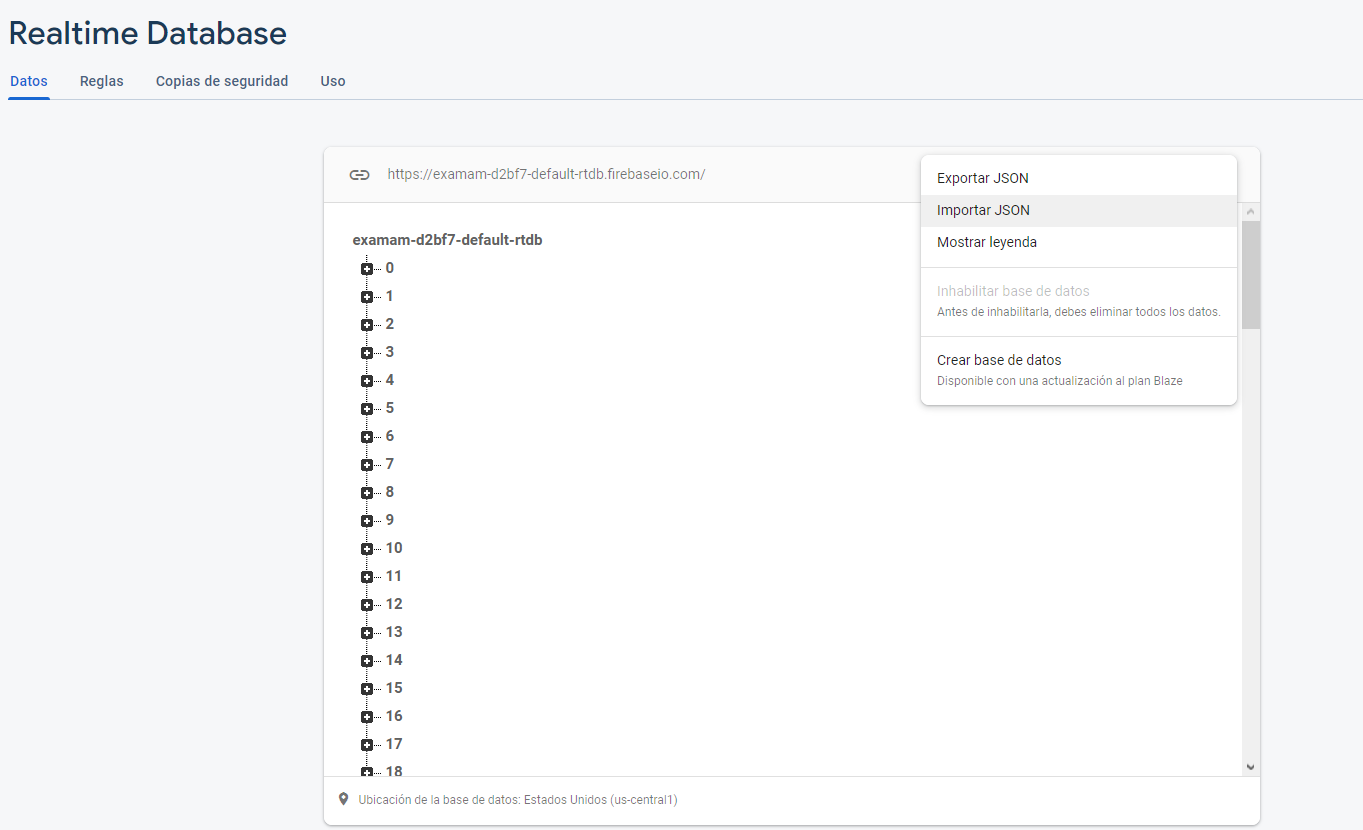
Primero creamos nuestro proyecto en Firebase y crearemos una base de datos en tiempo real.



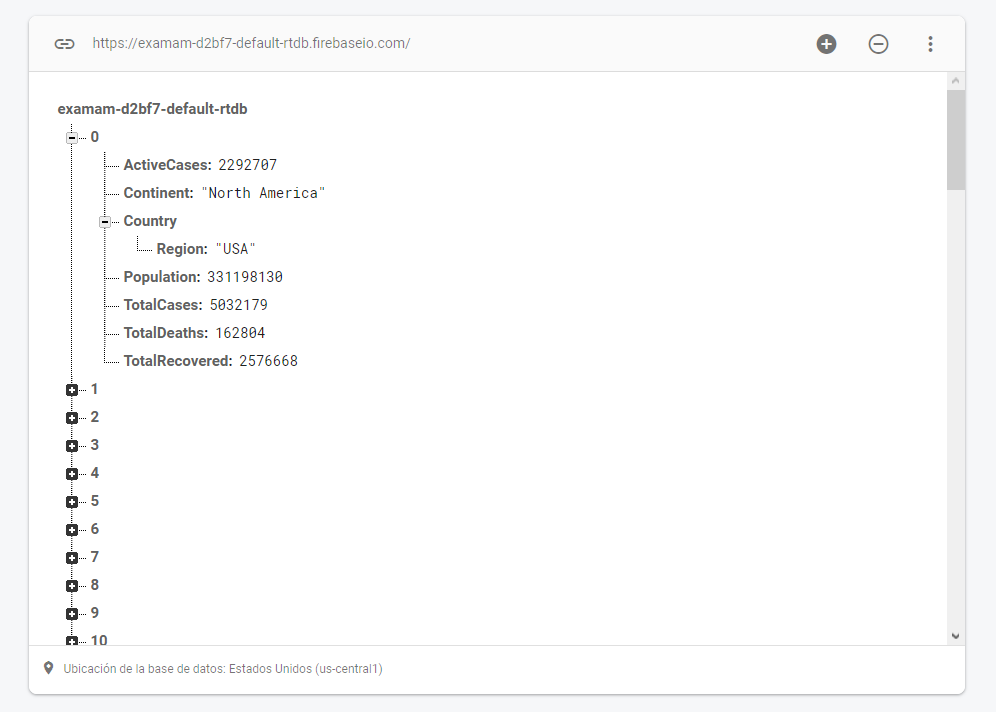
Con el archivo **datasets-worldometer.csv** proporcionado para esta evaluación procedemos a convertirlo en formato json a través del sitio web: <https://www.convertcsv.com/csv-to-json.htm>



Luego en Firebase importamos nuestro archivo json creado con anterioridad.



La estructura de cada uno de nuestros datos del csv tendrá la siguiente forma en json:



## AndroidManifest.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.amst.amst\_3ep\_maroto"**>  
  
 <**application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_portada2"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_portada2\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.AMST\_3EP\_Maroto"**>  
 <**activity android:name=".Principal"** />  
 <**activity  
 android:name=".splash"  
 android:theme="@style/Theme.AppCompat.NoActionBar"**>  
 <**intent-filter**>  
 <**action android:name="android.intent.action.MAIN"** />  
  
 <**category android:name="android.intent.category.LAUNCHER"** />  
 </**intent-filter**>  
 </**activity**>  
 <**activity  
 android:name=".MainActivity"  
 android:theme="@style/Theme.AppCompat.NoActionBar"** />  
  
 <**meta-data  
 android:name="preloaded\_fonts"  
 android:resource="@array/preloaded\_fonts"** />  
 </**application**>  
  
</**manifest**>

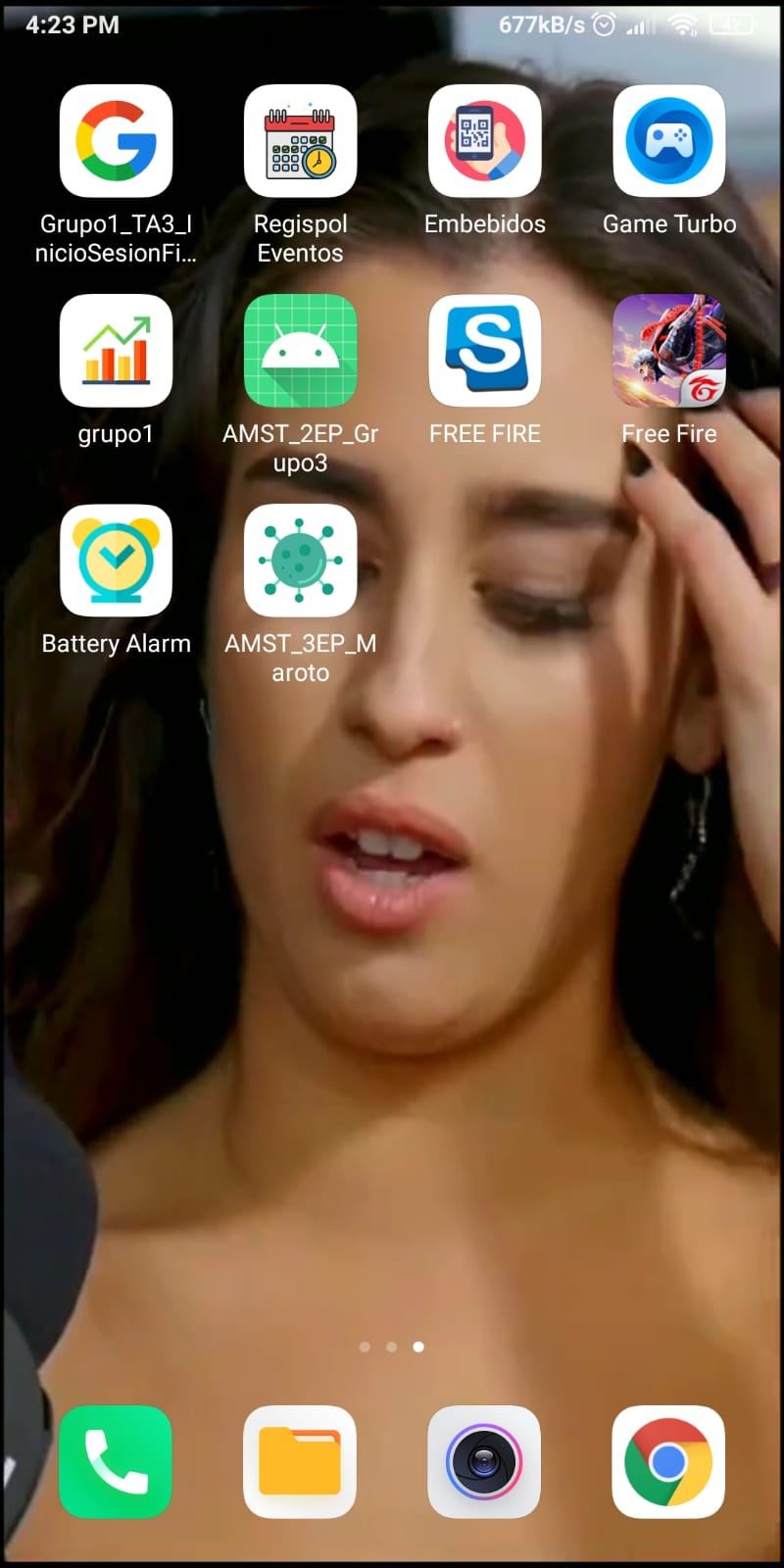
## Gradle Project

*// Top-level build file where you can add configuration options common to all sub-projects/modules.*buildscript **{** repositories **{** google()  
 jcenter()  
 **}** dependencies **{** classpath **"com.android.tools.build:gradle:4.1.0"** *// Agrega esta linea.* classpath **'com.google.gms:google-services:4.3.2'** *// NOTE: Do not place your application dependencies here; they belong  
 // in the individual module build.gradle files* **}  
}**allprojects **{** repositories **{** google()  
 jcenter()  
 maven **{** url **'https://jitpack.io' }  
 }  
}**task clean(**type**: Delete) **{** delete rootProject.buildDir  
**}**

## Gradle Modulo

plugins **{** id **'com.android.application'  
}**android **{** compileSdkVersion 30  
 buildToolsVersion **"30.0.2"** defaultConfig **{** applicationId **"com.amst.amst\_3ep\_maroto"** minSdkVersion 16  
 targetSdkVersion 30  
 versionCode 1  
 versionName **"1.0"** testInstrumentationRunner **"androidx.test.runner.AndroidJUnitRunner"  
 }** buildTypes **{** release **{** minifyEnabled **false** proguardFiles getDefaultProguardFile(**'proguard-android-optimize.txt'**), **'proguard-rules.pro'  
 }  
 }** compileOptions **{** sourceCompatibility JavaVersion.***VERSION\_1\_8*** targetCompatibility JavaVersion.***VERSION\_1\_8* }  
}**dependencies **{** implementation fileTree(**dir**: **'libs'**, **include**: [**'\*.jar'**])  
 implementation **'androidx.appcompat:appcompat:1.2.0'** implementation **'com.google.android.material:material:1.2.1'** implementation **'androidx.constraintlayout:constraintlayout:2.0.4'** testImplementation **'junit:junit:4.+'** androidTestImplementation **'androidx.test.ext:junit:1.1.2'** androidTestImplementation **'androidx.test.espresso:espresso-core:3.3.0'** *// Agrega esta línea dentro de las dependencias del proyecto  
 // Import the Firebase BoM* implementation platform(**'com.google.firebase:firebase-bom:26.1.0'**)  
 *// Add the dependency for the Firebase SDK for Google Analytics  
 // When using the BoM, don't specify versions in Firebase dependencies* implementation **'com.google.firebase:firebase-analytics'** implementation **'com.google.firebase:firebase-auth:20.0.1'** implementation **'com.google.android.gms:play-services-auth:19.0.0'***// Visualizar imagen de perfil, agregamos libreria Picasso* implementation **'com.squareup.picasso:picasso:2.5.2'** implementation **'com.google.firebase:firebase-database:19.5.1'** implementation **'com.android.volley:volley:1.1.1'** implementation **'com.github.PhilJay:MPAndroidChart:v3.1.0'  
}***// Agrega esta línea al final del archivo*apply **plugin**: **'com.google.gms.google-services'**

## Pantalla de bienvenida

### activity\_splash

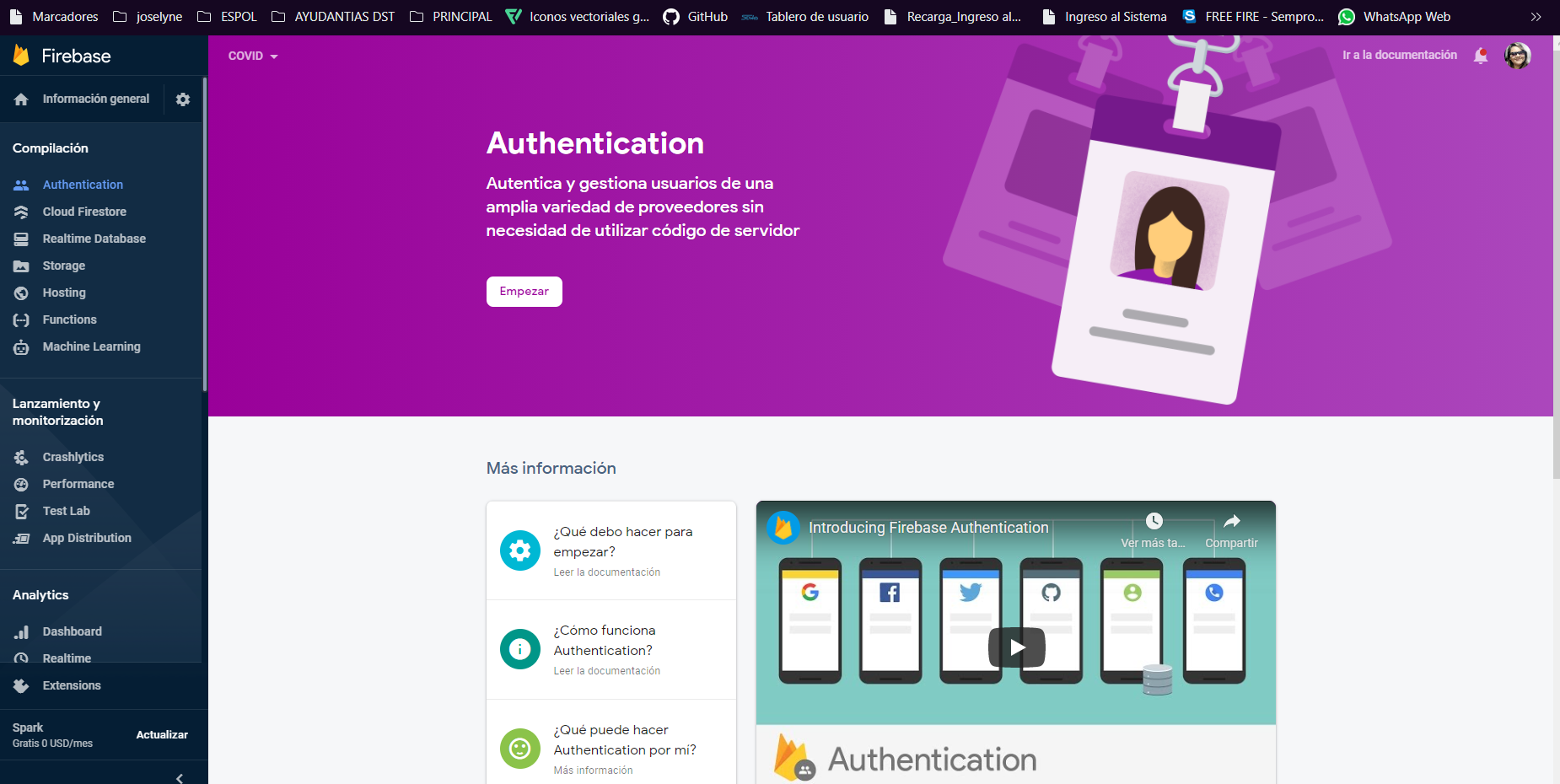
*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#FFFFFF"  
 android:orientation="vertical"  
 tools:context=".splash"**>  
  
 <**ImageView  
 android:id="@+id/imageView3"  
 android:layout\_width="0dp"  
 android:layout\_height="246dp"  
 android:layout\_marginStart="10dp"  
 android:layout\_marginLeft="10dp"  
 android:layout\_marginTop="100dp"  
 android:layout\_marginEnd="10dp"  
 android:layout\_marginRight="10dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:srcCompat="@drawable/ic\_bacterias"** />  
  
 <**TextView  
 android:id="@+id/textView2"  
 android:layout\_width="406dp"  
 android:layout\_height="102dp"  
 android:layout\_marginTop="20dp"  
 android:fontFamily="@font/bangers"  
 android:gravity="center"  
 android:text="ADITA S.A"  
 android:textColor="#99A3A5"  
 android:textSize="70sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.4"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imageView3"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

### Splash.java

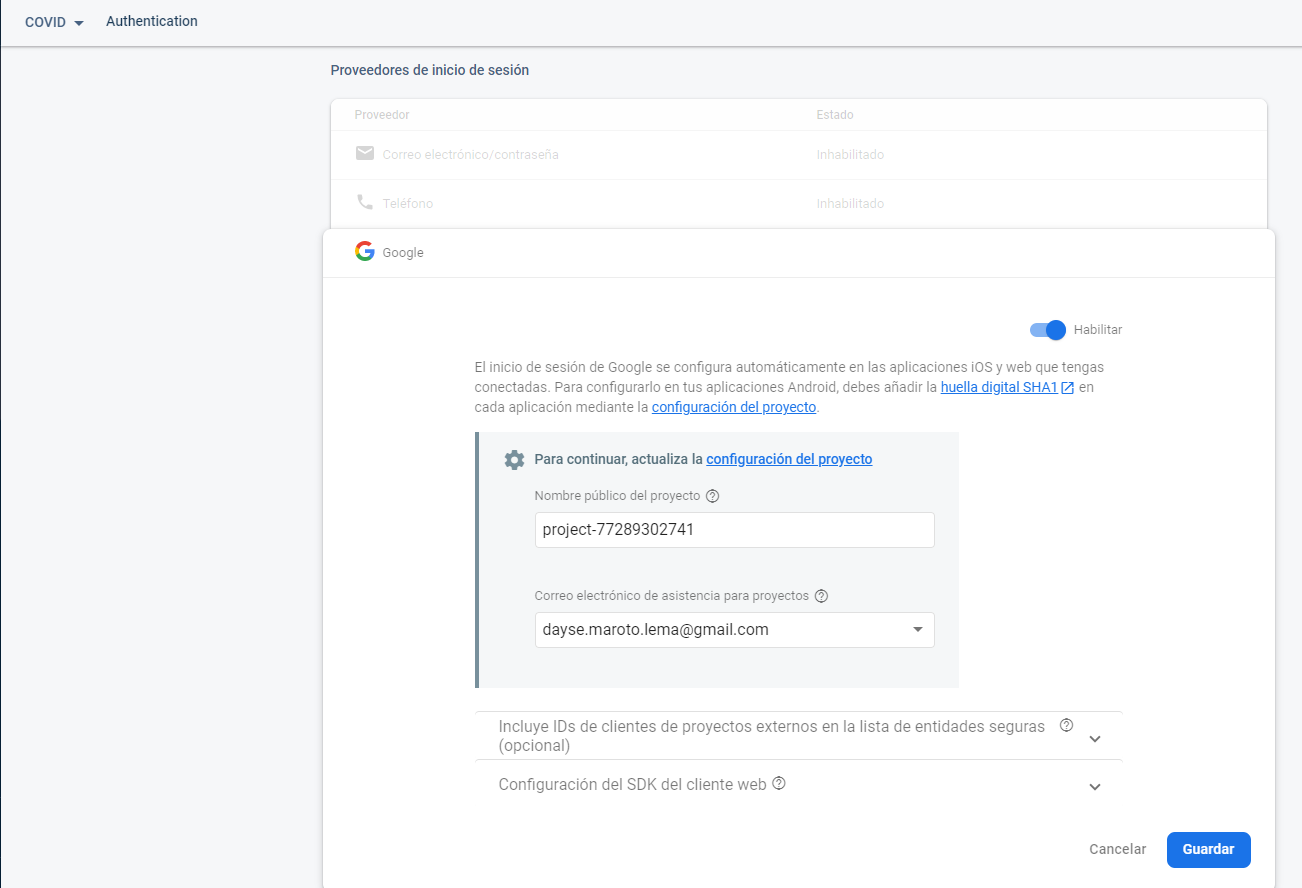
**package** com.amst.amst\_3ep\_maroto;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.os.Handler;  
**import** android.view.WindowManager;  
**import** android.view.animation.Animation;  
**import** android.view.animation.AnimationUtils;  
**import** android.widget.ImageView;  
**import** android.widget.TextView;  
  
**public class** splash **extends** AppCompatActivity {  
 **private static int** *SPLASH\_SCREEN*=3000;  
  
  
 *// Variables* Animation **topAnim**, **bottomAnim**;  
 ImageView **image**;  
 TextView **logo**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 getWindow().setFlags(WindowManager.LayoutParams.***FLAG\_FULLSCREEN***,WindowManager.LayoutParams.***FLAG\_FULLSCREEN***);  
 setContentView(R.layout.***activity\_splash***);  
  
  
*// Animations* **topAnim**= AnimationUtils.*loadAnimation*(**this**,R.anim.***top\_animation***);  
 **bottomAnim**=AnimationUtils.*loadAnimation*(**this**,R.anim.***bottom\_animation***);  
  
*// Hooks* **image**= findViewById(R.id.***imageView3***);  
 **logo**=findViewById(R.id.***textView2***);  
  
 **image**.setAnimation(**topAnim**);  
 **logo**.setAnimation(**bottomAnim**);  
  
 **new** Handler().postDelayed(**new** Runnable() {  
 @Override  
 **public void** run() {  
 Intent intent = **new** Intent(splash.**this**,MainActivity.**class**);  
 startActivity(intent);  
 finish();  
 }  
 },*SPLASH\_SCREEN*);  
 }  
}

## Inicio de sesión

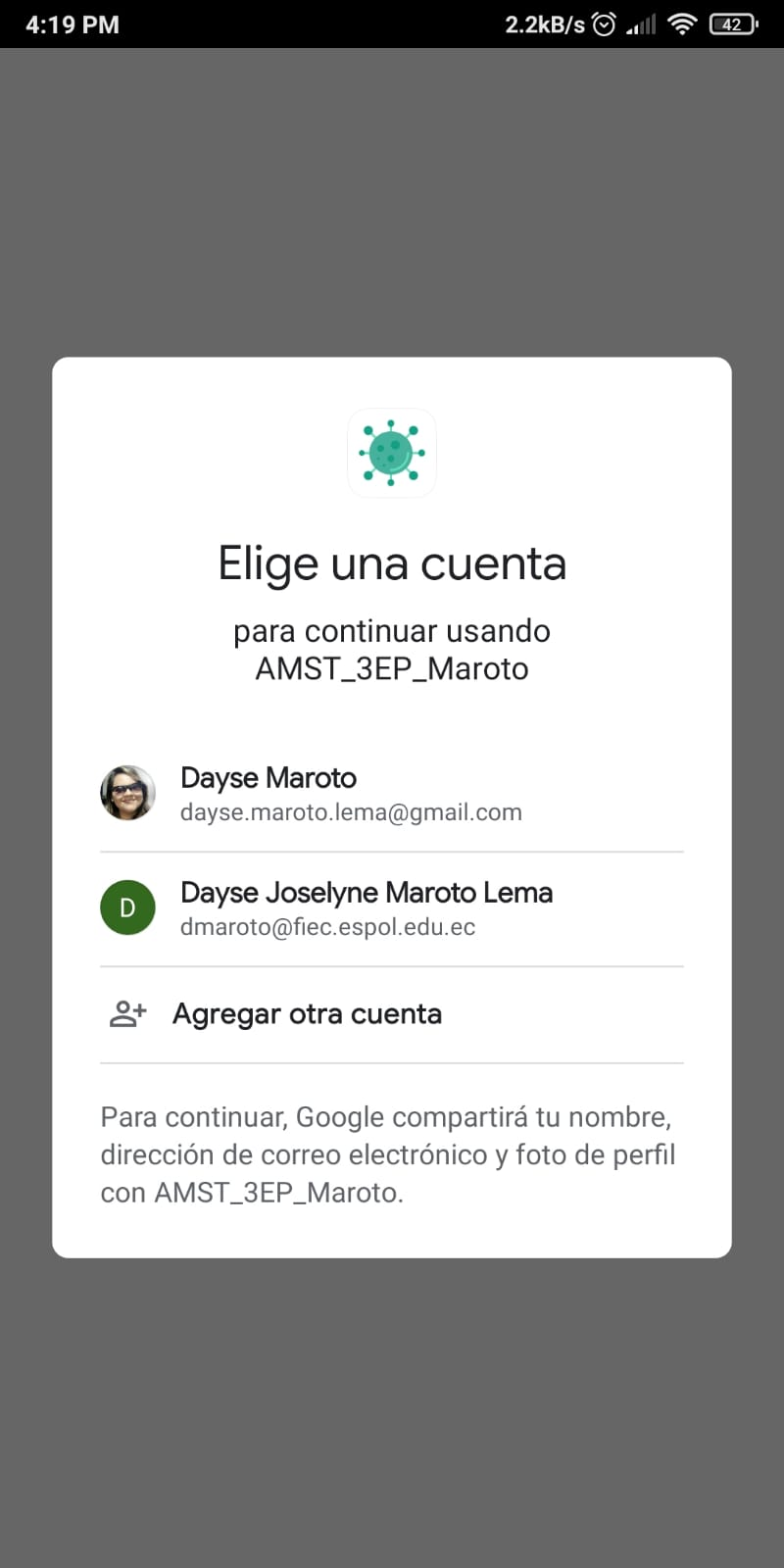
Activamos la autenticación por Google.



Habilitamos la autenticación de Google.



## Pantalla de inicio de sesión con google

### activity\_main.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"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#FFFFFF"  
 android:gravity="center"  
 android:orientation="vertical"  
 tools:context=".MainActivity"**>  
  
 <**ImageView  
 android:id="@+id/imageView"  
 android:layout\_width="153dp"  
 android:layout\_height="140dp"  
 app:srcCompat="@drawable/ic\_google"** />  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="153dp"  
 android:gravity="center"  
 android:text="Inicio de sesion con google"  
 android:textColor="#000000"  
 android:textSize="24sp"  
 android:textStyle="bold"** />  
  
 <**Button  
 android:id="@+id/btn\_login"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="iniciarSesion"  
 android:text="INICIO DE SESION"** />  
</**LinearLayout**>

### MainActivity.java

**package** com.amst.amst\_3ep\_maroto;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Button;  
  
**import** com.google.android.gms.auth.api.signin.GoogleSignIn;  
**import** com.google.android.gms.auth.api.signin.GoogleSignInAccount;  
**import** com.google.android.gms.auth.api.signin.GoogleSignInClient;  
**import** com.google.android.gms.auth.api.signin.GoogleSignInOptions;  
**import** com.google.android.gms.common.api.ApiException;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.firebase.auth.AuthCredential;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.auth.FirebaseUser;  
**import** com.google.firebase.auth.GoogleAuthProvider;  
  
**import** java.util.HashMap;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 *//Varibales públicas* **static final int *GOOGLE\_SIGN\_IN*** = 123;  
 FirebaseAuth **mAuth**;  
 GoogleSignInClient **mGoogleSignInClient**;  
 Button **btn\_login**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **mAuth** = FirebaseAuth.*getInstance*();  
 GoogleSignInOptions gso = **new** GoogleSignInOptions.Builder(GoogleSignInOptions.***DEFAULT\_SIGN\_IN***).requestIdToken(getString(R.string.***default\_web\_client\_id***)).requestEmail().build();  
 **mGoogleSignInClient** = GoogleSignIn.*getClient*(**this**, gso);  
  
 Intent intent = getIntent();  
 String msg = intent.getStringExtra(**"msg"**);  
 **if**(msg != **null**){  
 **if**(msg.equals(**"cerrarSesion"**)){  
 cerrarSesion();  
 }  
 }  
  
 }  
  
  
 **private void** cerrarSesion() {  
 **mGoogleSignInClient**.signOut().addOnCompleteListener(**this**,  
 task -> updateUI(**null**));  
 }  
 **public void** iniciarSesion(View view) {  
 Intent signInIntent = **mGoogleSignInClient**.getSignInIntent();  
 startActivityForResult(signInIntent, ***GOOGLE\_SIGN\_IN***);  
 }  
  
 @Override  
 **protected void** onActivityResult(**int** requestCode, **int** resultCode, Intent data) {  
 **super**.onActivityResult(requestCode, resultCode, data);  
 **if** (requestCode == ***GOOGLE\_SIGN\_IN***) {  
 Task<GoogleSignInAccount> task = GoogleSignIn.*getSignedInAccountFromIntent*(data);  
 **try** {  
 GoogleSignInAccount account = task.getResult(ApiException.**class**);  
 **if** (account != **null**) firebaseAuthWithGoogle(account);  
 }**catch** (ApiException e) {  
 Log.*w*(**"TAG"**, **"Fallo el inicio de sesión con google."**, e);  
 }  
 }  
  
 }  
  
 **private void** firebaseAuthWithGoogle(GoogleSignInAccount account) {  
 Log.*d*(**"TAG"**, **"firebaseAuthWithGoogle:"** + account.getId());  
 AuthCredential credential = GoogleAuthProvider.*getCredential*(account.getIdToken(), **null**);  
 **mAuth**.signInWithCredential(credential).addOnCompleteListener(**this**, task -> {  
 **if** (task.isSuccessful()) {  
 FirebaseUser user = **mAuth**.getCurrentUser();  
 updateUI(user);  
 }**else**{  
 System.***out***.println(**"error"**);  
 updateUI(**null**);  
 }  
  
 });  
 }  
  
 **private void** updateUI(FirebaseUser user) {  
 **if** (user != **null**) {  
  
  
 finish();  
 Intent intent = **new** Intent(**this**, Principal.**class**);  
  
 startActivity(intent);  
 }**else**{  
 System.***out***.println(**"sin registrarse"**);  
 }  
 }  
  
  
}

## Países con covid



### activity\_principal.xml

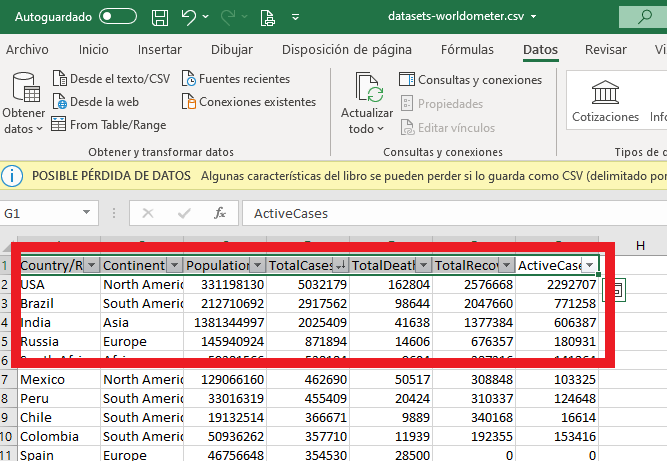
*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/paises\_contenedor"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center\_horizontal"  
 android:orientation="vertical"  
 tools:context=".Principal"**>  
  
 <**TextView  
 android:id="@+id/textView3"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center\_horizontal"  
 android:text="PAISES CON COVID"  
 android:textSize="24sp"** />  
  
 <**Button  
 android:id="@+id/btn\_cerrarSesion"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="cerrarSesion"  
 android:text="Cerrar Sesion"** />  
  
 <**Button  
 android:id="@+id/btn\_id"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:gravity="center\_horizontal"  
 android:onClick="iniciarBaseDeDatos"  
 android:text="TOP 5"** />  
</**LinearLayout**>

### Principal.java

**package** com.amst.amst\_3ep\_maroto;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.ImageView;  
**import** android.widget.LinearLayout;  
**import** android.widget.TextView;  
  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.database.DataSnapshot;  
**import** com.google.firebase.database.DatabaseError;  
**import** com.google.firebase.database.DatabaseReference;  
**import** com.google.firebase.database.FirebaseDatabase;  
**import** com.google.firebase.database.Query;  
**import** com.google.firebase.database.ValueEventListener;  
**import** com.squareup.picasso.Picasso;  
  
**import** java.util.ArrayList;  
**import** java.util.HashMap;  
**import** java.util.Map;  
  
**public class** Principal **extends** AppCompatActivity {  
 DatabaseReference **db\_reference**;  
 LinearLayout **paises\_contenedor**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_principal***);  
 Intent intent = getIntent();  
 **paises\_contenedor**= findViewById(R.id.***paises\_contenedor***);  
  
 }  
  
 **public void** cerrarSesion(View view){  
 FirebaseAuth.*getInstance*().signOut();  
 finish();  
 Intent intent = **new** Intent(**this**, MainActivity.**class**);  
 intent.putExtra(**"msg"**, **"cerrarSesion"**);  
 startActivity(intent);  
 }  
  
 **public void** iniciarBaseDeDatos(View view){  
 **db\_reference** = FirebaseDatabase.*getInstance*().getReference();  
  
  
 **db\_reference**.orderByChild(**"TotalCases"**).limitToLast(5).addValueEventListener(**new** ValueEventListener() {  
 @Override  
 **public void** onDataChange(DataSnapshot dataSnapshot) {  
 **for** (DataSnapshot snapshot : dataSnapshot.getChildren()) {  
 System.***out***.println(snapshot);  
 TextView t=**new** TextView(getApplicationContext());  
 String re=**"Pais: "**+(String.*valueOf*(snapshot.child(**"Country"**).child(**"Region"**).getValue()))+**" Total de Casos: "**+(String.*valueOf*(snapshot.child(**"TotalCases"**).getValue()));  
 t.setText(re);  
 **paises\_contenedor**.addView(t);  
 }  
 }  
  
 @Override  
 **public void** onCancelled(DatabaseError error) {  
 System.***out***.println(error.toException());  
 }  
 });  
  
 }  
  
}

# Evidencia

Como se puede observar la aplicación si está arrojando los 5 países que tienen la mayor cantidad de casos de covid-19



# Bibliografía

*CSV To JSON Converter*. (2021). Convertcsv.com. <https://www.convertcsv.com/csv-to-json.htm>

Vaibhav Pallod. (2020). Import firebase database data from excel or csv file in node child tree type structure [YouTube Video]. In *YouTube*. https://www.youtube.com/watch?v=RO0LMwpoGPg

‌

‌