Threads and Async tasks – with switch n start,stop button (see in Logcat)

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="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:orientation="vertical"  
 tools:context=".MainActivity"**>  
  
 <**Switch  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"** />  
  
 <**Button  
 android:id="@+id/btn\_thread\_start"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Start"  
 android:onClick="startThread"** />  
  
 <**Button  
 android:id="@+id/btn\_thread\_stop"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Stop"  
 android:onClick="stopThread"** />  
  
</**LinearLayout**>

Mainactivity.java

**package** com.example.threads;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.View;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 **private static final** String ***TAG*** = **"MainActivity"**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 }  
  
 **public void** startThread(View view) {  
 ExampleRunnable runnable = **new** ExampleRunnable(10);  
 **new** Thread(runnable).start();  
 }  
  
 **public void** stopThread(View view) {  
 *// Implementation for stopping the thread (if needed)* }  
  
 **class** ExampleThread **extends** Thread {  
 **int seconds**;  
  
 ExampleThread(**int** seconds) {  
 **this**.**seconds** = seconds;  
 }  
  
 @Override  
 **public void** run() {  
 **for** (**int** i = 0; i < **seconds**; i++) {  
 Log.*d*(***TAG***, **"startThread: "** + i);  
 **try** {  
 Thread.*sleep*(1000);  
 } **catch** (InterruptedException e) {  
 e.printStackTrace();  
 }  
 }  
 }  
 }  
  
 **class** ExampleRunnable **implements** Runnable {  
 **int seconds**;  
  
 ExampleRunnable(**int** seconds) {  
 **this**.**seconds** = seconds;  
 }  
  
 @Override  
 **public void** run() {  
 **for** (**int** i = 0; i < **seconds**; i++) {  
 Log.*d*(***TAG***, **"startThread: "** + i);  
 **try** {  
 Thread.*sleep*(1000);  
 } **catch** (InterruptedException e) {  
 e.printStackTrace();  
 }  
 }  
 }  
 }  
}

dependencies **{** implementation **'androidx.appcompat:appcompat:1.4.1'** implementation **'com.google.android.material:material:1.5.0'** implementation **'androidx.constraintlayout:constraintlayout:2.1.3'** *// Unit test dependencies* testImplementation **'junit:junit:4.13.2'** *// Android Instrumentation test dependencies* androidTestImplementation **'androidx.test.ext:junit:1.1.3'** androidTestImplementation **'androidx.test.espresso:espresso-core:3.4.0'  
}**