

Android Indeterminate ProgressBar – Kotlin Example

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Android Indeterminate ProgressBar – Kotlin Example: In this [Android Tutorial](#), we shall learn to indicate the progress of a task whose progress cannot be tracked. Here we shall not indicate any specific numbers for the progress, but with an indefinite progressing view. An example task could be page loading, the progress is indefinite, but we have to let the user know that page loading task is happening, and so the ProgressBar used is in Indefinite mode.



Usually indefinite ProgressBar is used in such a way that initially it is hidden. When the task is started by an event or some other means, ProgressBar is shown. And finally when the task is completed, the ProgressBar is again hidden.

Indeterminate is the default mode of a ProgressBar and most importantly do not mention any progress for the view in layout xml file.

In this tutorial, we shall mimic the indeterminate task with a Runnable Thread using a long running while loop.

Following are the details of the Android Application we created for this example.

Application Name	ProgressBarIndEx
Company name	tutorialkart.com
Minimum SDK	API 21: Android 5.0 (Lollipop)
Activity	Empty Activity

[Create an Android Application with Kotlin Support](#) with above details and keeping rest to default. Replace activity_main.xml and MainActivity.kt with the following content.

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    tools:context="com.tutorialkart.progressbarindex.MainActivity">

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Do some stuff" />

    <ProgressBar
        android:id="@+id/progressBar1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="10dp"
        android:visibility="gone"/>

</LinearLayout>
```

MainActivity.kt

```

package com.tutorialkart.progressbarindex

import android.os.Bundle
import android.support.v7.app.AppCompatActivity
import android.view.View
import android.widget.ProgressBar
import kotlinx.android.synthetic.main.activity_main.*

class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        // get the references from layout file
        val btnStartProgress = this.button1
        val progressBar: ProgressBar = this.progressBar1

        // when button is clicked, start the task
        btnStartProgress.setOnClickListener { v ->

            // task is run on a thread
            Thread(Runnable {
                // dummy thread mimicking some operation whose progress cannot be tracked

                // display the indefinite progressbar
                this@MainActivity.runOnUiThread(java.lang.Runnable {
                    progressBar.visibility = View.VISIBLE
                })

                // performing some dummy time taking operation
                try {
                    var i=0;
                    while(i<Int.MAX_VALUE){
                        i++
                    }
                } catch (e: InterruptedException) {
                    e.printStackTrace()
                }

                // when the task is completed, make progressBar gone
                this@MainActivity.runOnUiThread(java.lang.Runnable {
                    progressBar.visibility = View.GONE
                })
            }).start()
        }
    }
}

```

Getting Started with Android

↳ [Kotlin Android Tutorial](#)

↳ [Create Android Application with Kotlin Support](#)

↳ [Walk Through Android Studio](#)

↳ [Convert Java Files to Kotlin Files](#)

↳ [Kotlin vs Java](#)

▸ [RecyclerView](#)

▸ [Use Java 8 in Android](#)

▸ [Add External Jar to Android Dependencies](#)

Android TextView

▸ [Android TextView](#)

▸ [Android TextView - Basic Example](#)

▸ [Android TextView - Create programmatically](#)

▸ [Android TextView - OnClickListener](#)

▸ [Android TextView - Justify Text](#)

▸ [Android TextView - Italic](#)

▸ [Android TextView - Bold](#)

Android Button

▸ [Android - New Button programmatically](#)

▸ [Android Button - OnClickListener](#)

▸ [Android Button - Disable All Caps](#)

▸ [Android Button - Custom Background](#)

▸ [Android Button - Change background programatically](#)

Android Toast

▸ [Android Toast - Example](#)

Android EditText

▸ [Android EditText - Create programmatically](#)

▸ [Android EditText - On Text Change - Listener](#)

▸ [Android TextInputLayout - Floating Label in EditText](#)

▸ [Android EditText - Keyboard with only Numbers](#)

▸ [Android EditText - Show/Hide Password](#)

Android ImageView

▸ [Android ImageView - OnClickListener](#)

Android Radio Buttons

▸ [Android RadioGroup - RadioButtons Create programmatically](#)

Android SeekBar

▸ [Android SeekBar - Example](#)

▸ [Android SeekBar Set Custom Range](#)

Android Intent

‣ [Android - Start Another Activity](#)

‣ [Android - Open URL in Browser Activity](#)

Android AlertDialog

‣ [Android AlertDialog - Example](#)

Android WebView

‣ [Android WebView - Example](#)

Android ProgressBar

‣ [Kotlin Android - Indeterminate ProgressBar](#)

Android Snackbar

‣ [Android Snackbar - Example](#)

‣ [Android Snackbar - Set Action](#)

‣ [Android Snackbar - Change Text Color, Background Color](#)

Android ListView

‣ [Android ListView Example](#)

‣ [Android Refresh ListView](#)

Android Device Parameters

‣ [Android Get Screen Width and Height Programmatically](#)

Android Canvas

‣ [Draw Rect / Oval to Canvas](#)

‣ [Android Draw Circle Border](#)

‣ [Android Draw SVG to Canvas](#)

Android Programming - Other

‣ [Android - Access View Programmatically using findViewById](#)

‣ [Android runOnUiThread](#)

Android Game Development

‣ [Android Game Development](#)

‣ [Detect Collisions between two Sprites \(Bitmaps\)](#)

Android Text To Speech

‣ [Android Text To Speech - Kotlin Example](#)

Fix Errors

‣ [Android - Minimum supported Gradle version](#)

‣ [Android - All support libraries must use the exact same version specification](#)

Example Applications

↳ [Android - Login Form](#)

↳ [Android - Color Picker](#)

↳ [Kotlin Android Game Development](#)

Kotlin - Java

↳ [Kotlin Tutorial](#)

Useful Resources

↳ [How to Learn Programming](#)