**Activity\_main.xml:**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout 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"  
 tools:context=".MainActivity">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:weightSum="10"  
 android:orientation="vertical">  
  
  
  
 <TextView  
 android:id="@+id/title\_text\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Handlers"  
 android:textSize="40dp"  
 android:textAppearance="?android:textAppearanceLarge"  
 android:textStyle="bold"  
 android:textAlignment="center"/>  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="2"/>  
  
   
 <ProgressBar  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/progressBar"  
 style="?android:attr/progressBarStyleHorizontal"  
 android:indeterminate="false"  
 android:layout\_margin="20dp"  
 android:max="10"/>  
 <Button  
 android:id="@+id/btnStart"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAlignment="center"  
 android:layout\_gravity="center"  
 android:textSize="20dp"  
 android:text="Start" />  
  
  
 </LinearLayout>  
  
</RelativeLayout>

**MainActivity.java:**

package com.example.lab 11;  
  
import android.os.Handler;  
import android.support.v7.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.ProgressBar;  
  
public class MainActivity extends AppCompatActivity {  
 private Handler mHandler;  
 private ProgressBar mProgressBar;  
 private Button mStartButton;  
  
 private void performStuff(){  
 new Thread(new Runnable() {  
 @Override  
 public void run() {  
 for (int i = 0; i <= 30; i++){  
 final int currentProgessCount = i;  
 try {  
 Thread.*sleep*(500);  
 }  
 catch (InterruptedException e){  
 e.printStackTrace();  
 }  
  
 mHandler.post(new Runnable() {  
 @Override  
 public void run() {  
 mProgressBar.setProgress(currentProgessCount);  
 }  
 });  
 }  
 }  
 }).start();  
 }  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 mHandler = new Handler();  
 mProgressBar = findViewById(R.id.progressBar);  
 mStartButton = findViewById(R.id.btnStart);  
  
 mStartButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 performStuff();  
 } }); }  
}

**Output:**

