**Chronometer**

**MainActivity.java**

package com.example.chronometerexample;  
  
import android.support.v7.app.AppCompatActivity;  
import android.os.Bundle;  
import android.os.SystemClock;  
import android.view.View;  
import android.widget.Button;  
import android.widget.Chronometer;  
  
public class MainActivity extends AppCompatActivity {  
 Chronometer simpleChronometer;  
 Button start, stop, restart, setFormat, clearFormat;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 // initiate views  
 simpleChronometer = (Chronometer) findViewById(R.id.*simpleChronometer*);  
 start = (Button) findViewById(R.id.*startButton*);  
 stop = (Button) findViewById(R.id.*stopButton*);  
 restart = (Button) findViewById(R.id.*restartButton*);  
 setFormat = (Button) findViewById(R.id.*setFormat*);  
 clearFormat = (Button) findViewById(R.id.*clearFormat*);  
 // perform click event on start button to start a chronometer  
 start.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 // *TODO Auto-generated method stub* simpleChronometer.start();  
 }  
 });  
  
 // perform click event on stop button to stop the chronometer  
 stop.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 // *TODO Auto-generated method stub* simpleChronometer.stop();  
 }  
 });  
  
 // perform click event on restart button to set the base time on chronometer  
 restart.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 // *TODO Auto-generated method stub* simpleChronometer.setBase(SystemClock.*elapsedRealtime*());  
 }  
 });  
  
 // perform click event on set Format button to set the format of chronometer  
 setFormat.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 // *TODO Auto-generated method stub* simpleChronometer.setFormat("Time (%s)");  
 }  
 });  
  
 // perform click event on clear button to clear the current format of chronmeter as you set through set format  
 clearFormat.setOnClickListener(new View.OnClickListener() {  
  
 @Override  
 public void onClick(View v) {  
 // *TODO Auto-generated method stub* simpleChronometer.setFormat(null);  
 }  
 });  
}  
  
  
}

**activity\_main.xml**

<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">  
  
 <TextView  
 android:id="@+id/textView1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/chronometerInAndroid"  
 android:textColor="#FF0000"  
 android:textSize="20dp"  
 android:textStyle="bold" />  
  
 <Button  
 android:id="@+id/startButton"  
 android:layout\_width="200dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/textView1"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/start" />  
  
 <Button  
 android:id="@+id/stopButton"  
 android:layout\_width="200dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/startButton"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/stop" />  
  
 <Button  
 android:id="@+id/restartButton"  
 android:layout\_width="200dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/stopButton"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/restart" />  
  
 <Button  
 android:id="@+id/setFormat"  
 android:layout\_width="200dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/restartButton"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/setFormat" />  
  
 <Button  
 android:id="@+id/clearFormat"  
 android:layout\_width="200dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/setFormat"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="10dp"  
 android:text="@string/clearFormat" />  
 <!-- chronometer with black background and red text color -->  
 <Chronometer  
 android:id="@+id/simpleChronometer"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/clearFormat"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="20dp"  
 android:background="#000"  
 android:gravity="center"  
 android:padding="10dp"  
 android:textColor="#f00"  
 android:textStyle="bold" />  
  
</RelativeLayout>

**Strings.xml**

<resources>  
 <string name="app\_name">ChronometerExample</string>  
 <string name="hello\_world">Hello world!</string>  
 <string name="action\_settings">Settings</string>  
 <string name="chronometerInAndroid">Chronometer In Android</string>  
 <string name="start">Start</string>  
 <string name="stop">Stop</string>  
 <string name="restart">Restart</string>  
 <string name="setFormat">Set Format</string>  
 <string name="clearFormat">Clear Format</string>  
</resources>