

Практическая работа (Приложение секундомер)

Выполнил: Винник Ярослав Ис231

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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="16dp"
    android:background="#77DD"
    tools:context="MainActivity">

    <Chronometer
        android:id="@+id/textTime"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="65sp"
        android:layout_gravity="center"
        android:layout_marginBottom="32dp"
        android:textColor="#000000" />

    <Button
        android:id="@+id/btnStart"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/start"
        android:layout_gravity="center"
        android:layout_marginBottom="16dp"
        android:backgroundTint="#4CAF50"
        android:textColor="#FFFFFF" />
```

```
<Button
    android:id="@+id/btnPause"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/pause"
    android:layout_gravity="center"
    android:layout_marginBottom="16dp"
    android:backgroundTint="#FF9800"
    android:textColor="#FFFFFF" />

<Button
    android:id="@+id/btnReset"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/reset"
    android:layout_gravity="center"
    android:backgroundTint="#F44336"
    android:textColor="#FFFFFF" />

</LinearLayout>
```

Kt:

```
activity_main.xml  strings.xml  MainActivity.kt  AndroidManifest.xml
1  package com.example.sekun
2
3  import androidx.appcompat.app.AppCompatActivity
4  import android.os.Bundle
5  import android.os.SystemClock
6  import android.widget.Button
7  import android.widget.Chronometer
8
9  class MainActivity : AppCompatActivity() {
10
11      lateinit var chronometr: Chronometer
12      var running: Boolean = false
13      var offset: Long = 0
14
15      val OFFSET_KEY = "offset"
16      val RUNNING_KEY = "running"
17      val BASE_KEY = "base_key"
18
19      override fun onCreate(savedInstanceState: Bundle?) {
20          super.onCreate(savedInstanceState)
21          setContentView(R.layout.activity_main)
22
23          chronometr = findViewById<Chronometer>(R.id.textTime)
24          val btnStart = findViewById<Button>(R.id.btnStart)
25          val btnPause = findViewById<Button>(R.id.btnPause)
26          val btnReset = findViewById<Button>(R.id.btnReset)
27
28          if (savedInstanceState != null) {
29              offset = savedInstanceState.getLong(key = OFFSET_KEY)
30              running = savedInstanceState.getBoolean(key = RUNNING_KEY)
31              if (running) {
32                  chronometr.base = savedInstanceState.getLong(key = BASE_KEY)
33                  chronometr.start()
34              } else {
35                  setBaseTime()
36              }
37          } else {
38              setBaseTime()
39          }
40      }
41  }
```

```

42      btnStart.setOnClickListener {
43          if (!running) {
44              setBaseTime()
45              chronometr.start()
46              running = true
47          }
48      }
49
50      btnPause.setOnClickListener {
51          if (running) {
52              saveOffset()
53              chronometr.stop()
54              running = false
55          }
56      }
57
58      btnReset.setOnClickListener {
59          offset = 0
60          setBaseTime()
61          running = false
62      }
63  }
64
65  private fun saveOffset() {
66      offset = SystemClock.elapsedRealtime() - chronometr.base
67  }
68
69  private fun setBaseTime() {
70      chronometr.base = SystemClock.elapsedRealtime() - offset
71  }
72
73  override fun onSaveInstanceState(savedInstanceState: Bundle) {
74      super.onSaveInstanceState(savedInstanceState)
75      savedInstanceState.putLong(OFFSET_KEY, offset)
76      savedInstanceState.putBoolean(RUNNING_KEY, running)
77      savedInstanceState.putLong(BASE_KEY, chronometr.base)
78  }
79  }
```

Приложение:

