



VENTURUS⁴TECH

UMA SALA DE AULA DIFERENTE

Módulo Android

Introdução à tecnologia Android e suas ferramentas para criação de aplicativos



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Apps e empresas

Rafael de Araujo

Desenvolvedor Android desde versão Cupcake (Android 1.5)

Experiência com smartphones, tablets e wearables

Usuário ativo da comunidade Android no Brasil

Participa de eventos nacionais e internacionais



Cainã Ferreira da Silva

Desenvolvedor Android 2013

Experiência com smartphones, tablets e wearables

Participa de eventos nacionais e internacionais

Apps da Sony



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O que é o Android?

Sistema Operacional móvel mais usado do mundo

Presente em celulares, tablets, relógios, TVs, carros (e em “coisas”)



Versões do Android



Versões Android



Cupcake
1.5
Abr, 2009



Donut
1.6
Set, 2009



Eclair
2.0 ~ 2.1
Oct, 2009



Versões Android



Froyo
2.2 ~ 2.2.3
Mai, 2010



Gingerbread
2.3 ~ 2.3.7
Dez, 2010



Honeycomb
3.0 ~ 3.2.6
Fev, 2011



Versões Android



Ice Cream Sandwich
4.0 ~ 4.04
Out, 2011



Jelly Bean
4.1 ~ 4.3.1
Jul, 2012



KitKat
4.4 ~ 4.4.4
Out, 2013



Versões Android



Lollipop
5.0 ~ 5.1.1
Nov, 2014



Marshmallow
6.0 ~ 6.0.1
Out, 2015

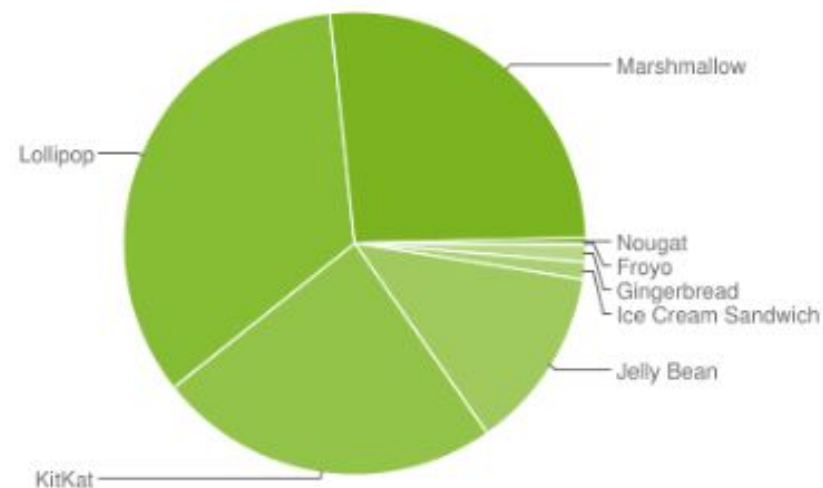


Nougat
7.0 ~ 7.1.1
Ago, 2016



Distribuição mundial

Version	Codename	API	Distribution
2.2	Froyo	8	0.1%
2.3.3 - 2.3.7	Gingerbread	10	1.2%
4.0.3 - 4.0.4	Ice Cream Sandwich	15	1.2%
4.1.x	Jelly Bean	16	4.5%
4.2.x		17	6.4%
4.3		18	1.9%
4.4	KitKat	19	24.0%
5.0	Lollipop	21	10.8%
5.1		22	23.2%
6.0	Marshmallow	23	26.3%
7.0	Nougat	24	0.4%



Data collected during a 7-day period ending on December 5, 2016.

Any versions with less than 0.1% distribution are not shown.





Linguagens utilizadas

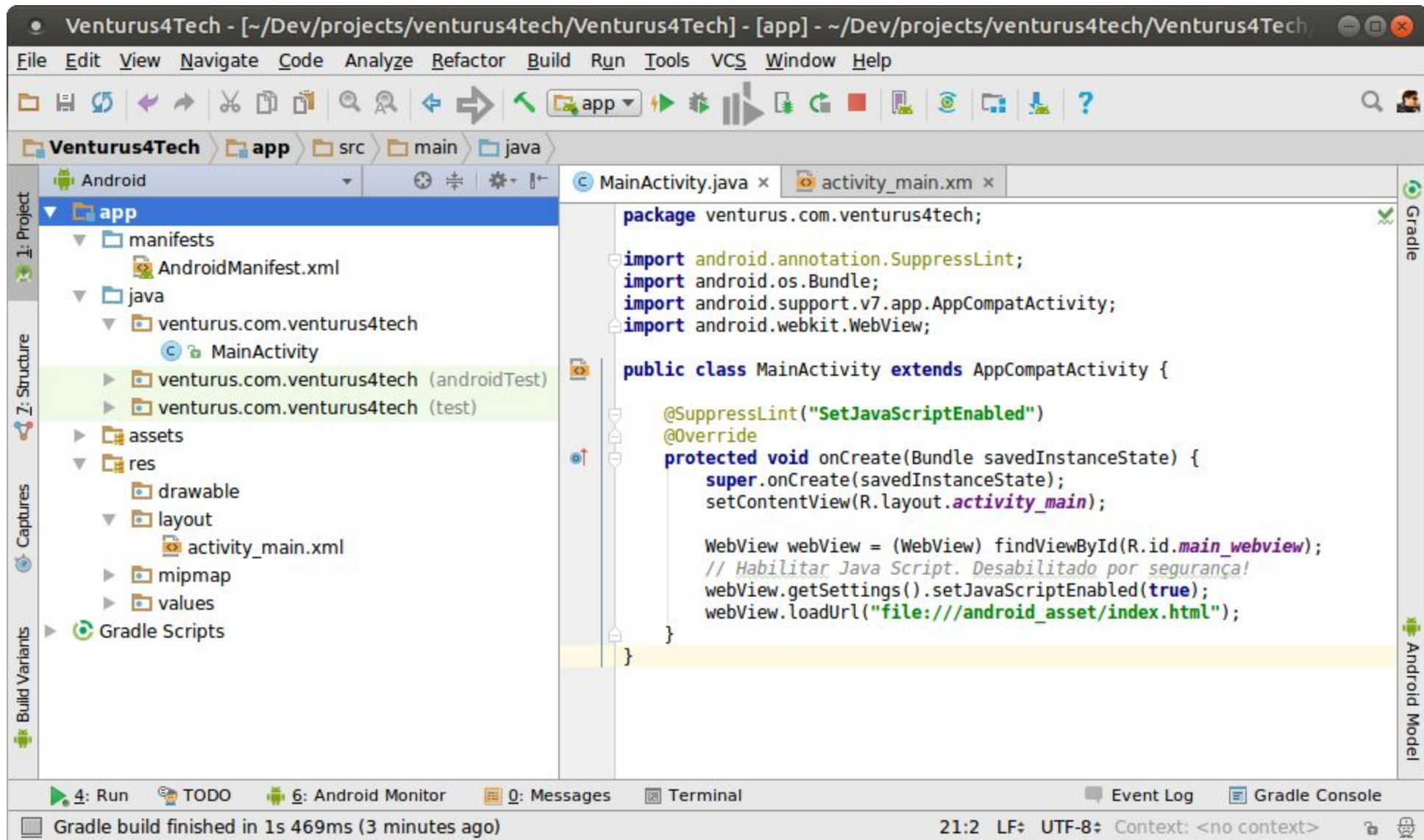




Ferramenta de desenvolvimento

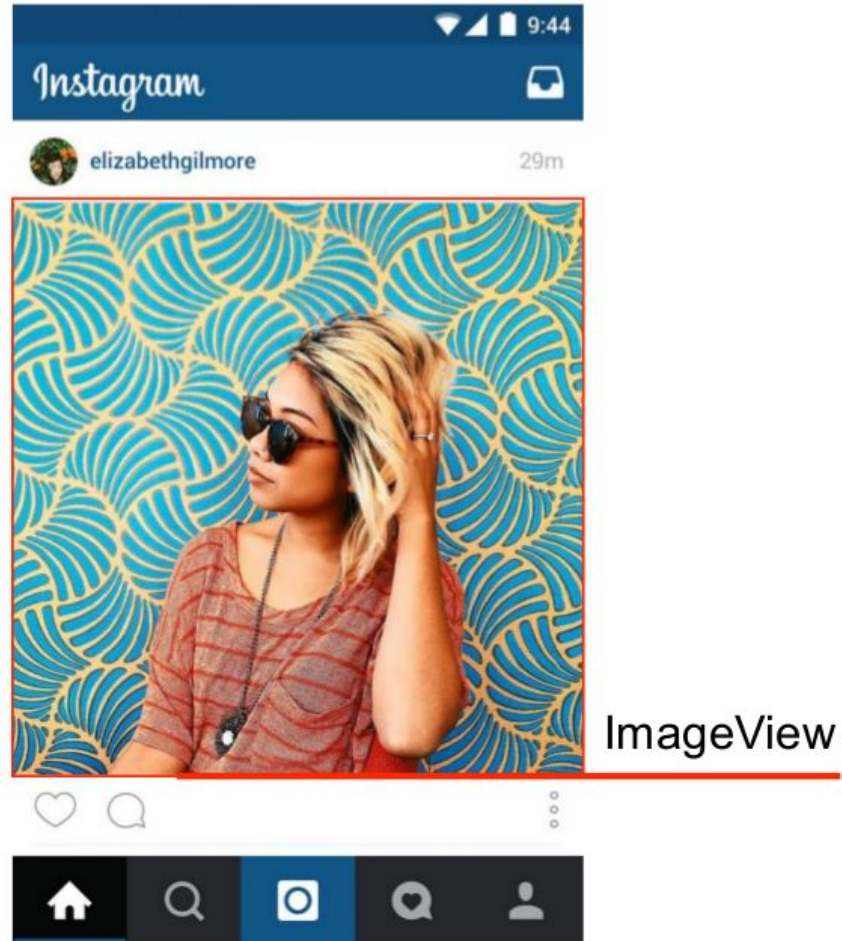
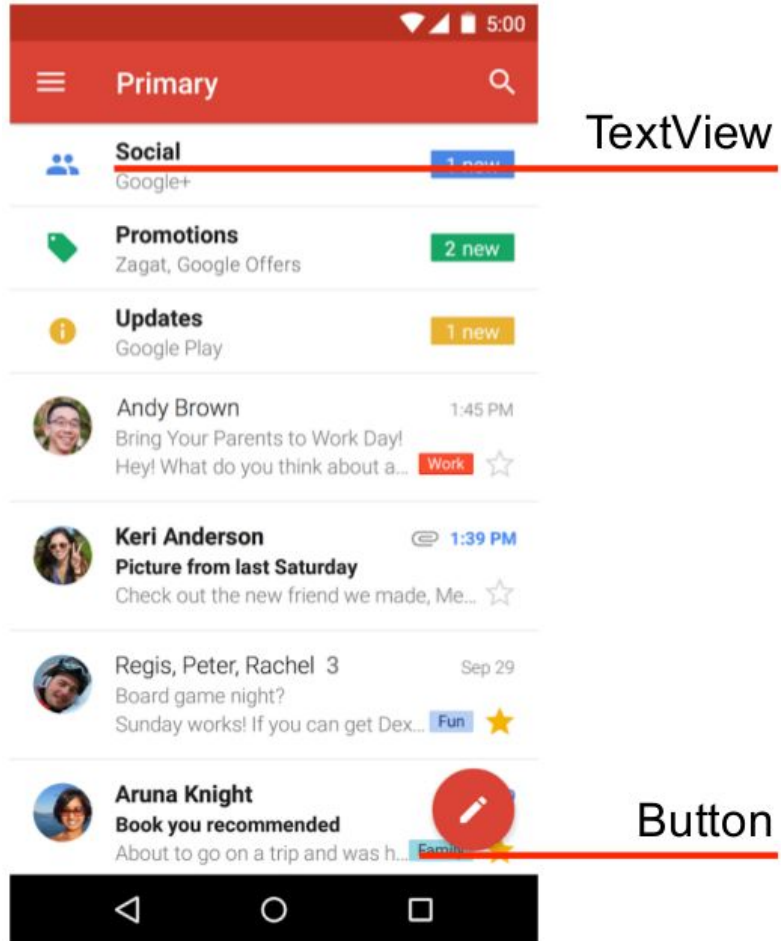


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Componentes: Layout xml

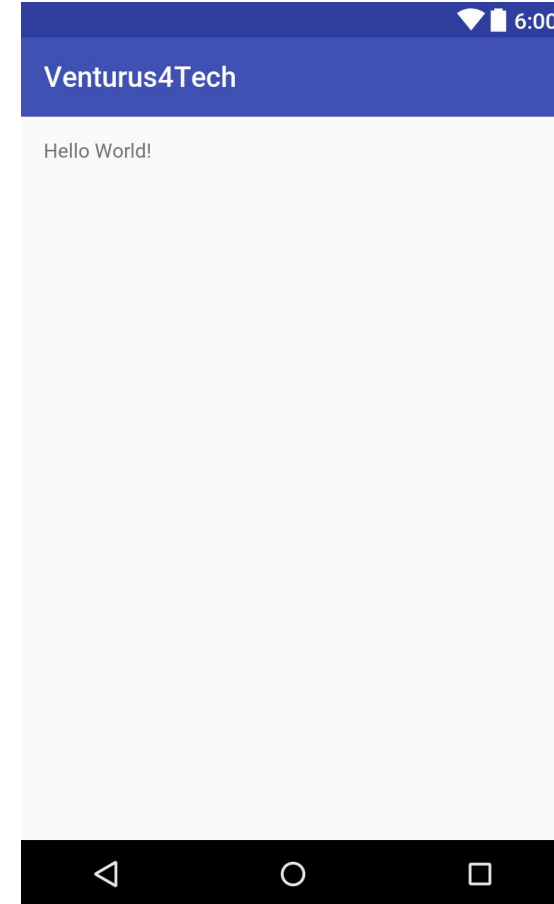


Componentes: Layout xml

```
<?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:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="venturus.com.venturus4tech.MainActivity">

    <TextView
        android:id="@+id/main_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"/>

</RelativeLayout>
```

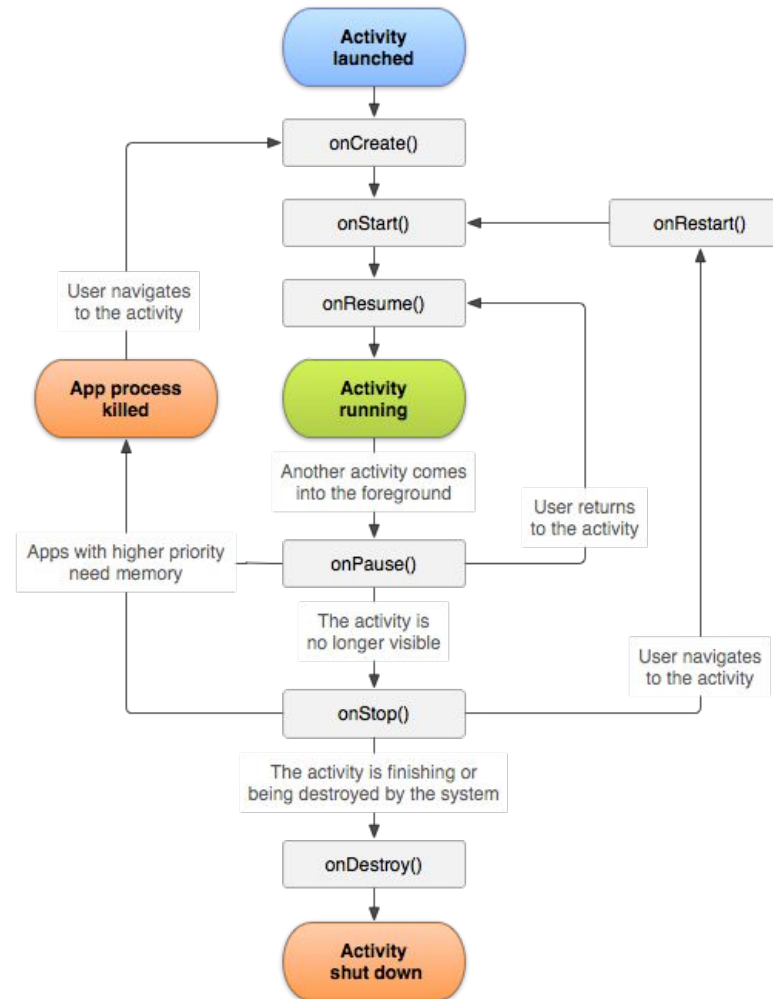


Componentes: Activity

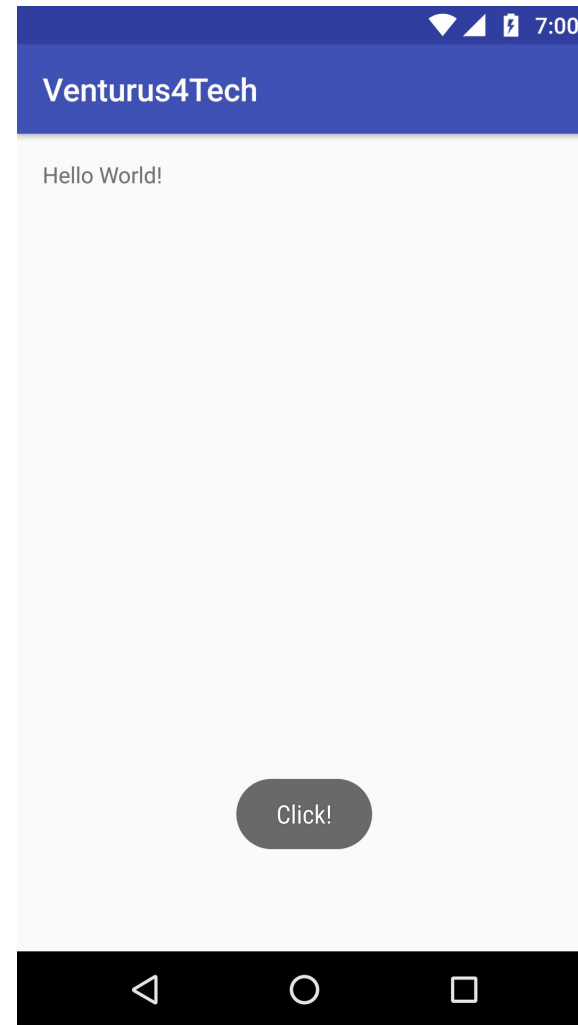
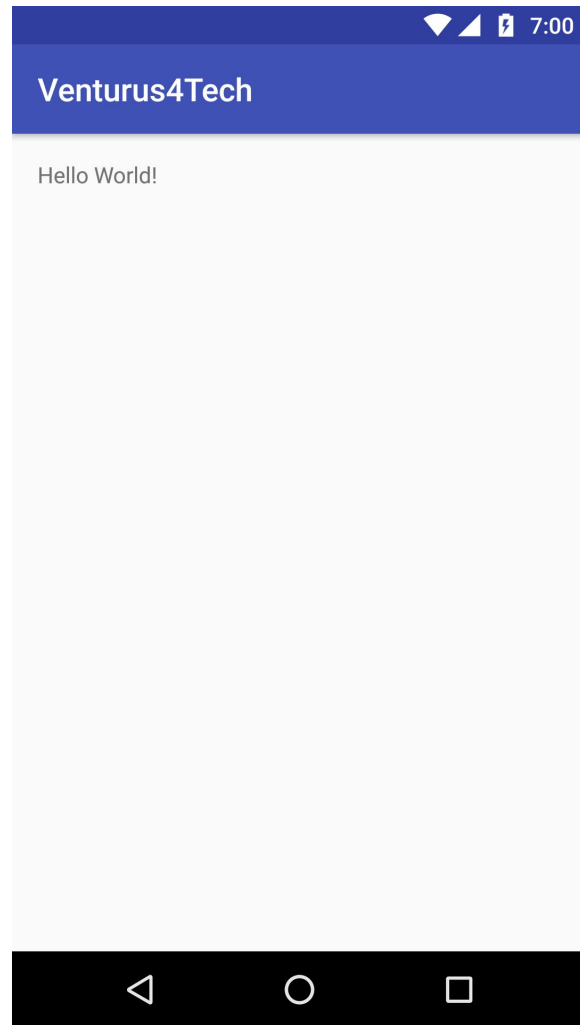
```
public class MainActivity extends AppCompatActivity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
  
        // Recupera TextView do layout  
        TextView textView = (TextView) findViewById(R.id.main_text);  
  
        // Adiciona um listener de Click  
        textView.setOnClickListener((view) → {  
            // Exibe um simple Toast na tela  
            Toast.makeText(MainActivity.this, "Click!", Toast.LENGTH_SHORT).show();  
            // Log que irá no Android Monitor do Android Studio  
            Log.i("Log", "Click!");  
        });  
    }  
}
```



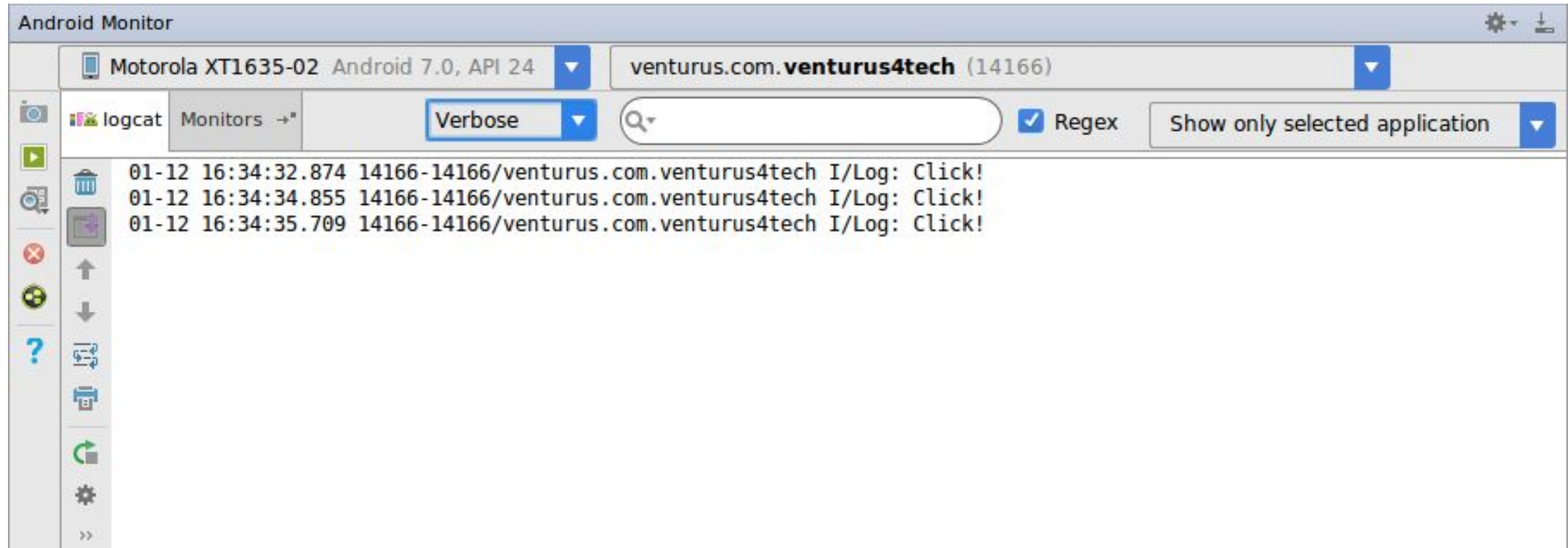
Ciclo de vida da Activity



Resultado



Android Monitor



Qual plataforma desenvolver?

Nativo

(Android, iOS)

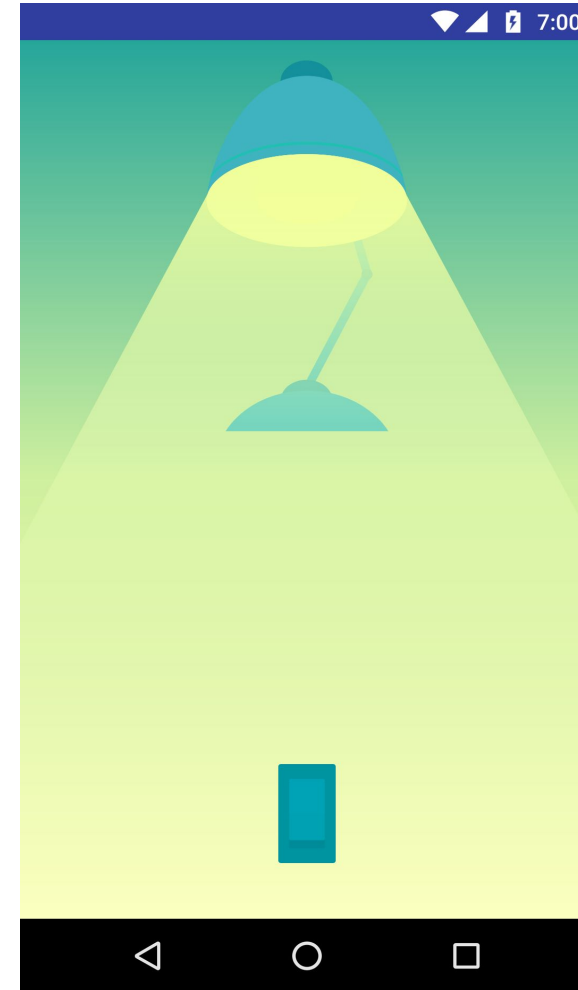
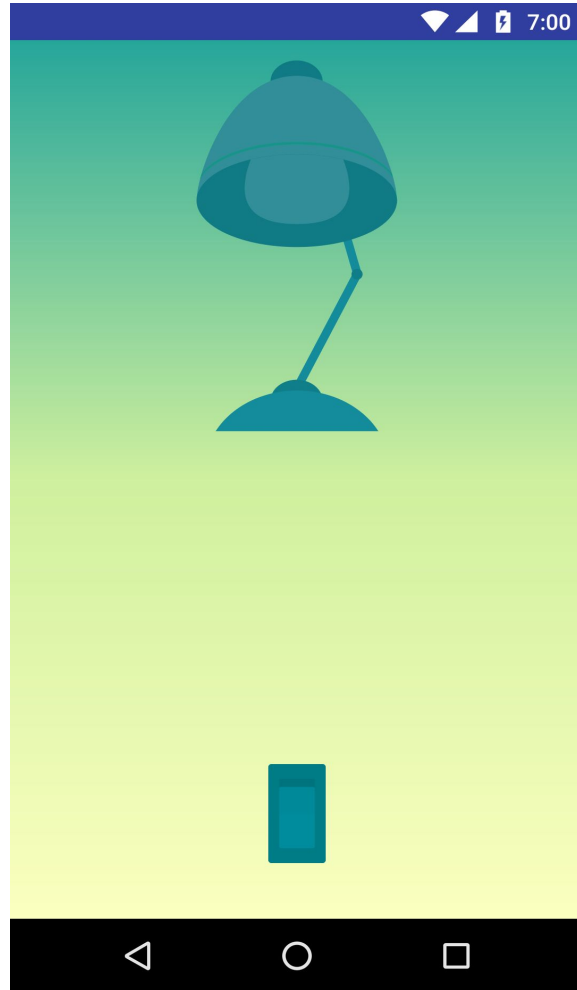
X

Híbrido

(HTML5, Xamarin, Phonegap...)



Projeto Venturus4Tech



Layout com WebView

```
<?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:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="venturus.com.venturus4tech.MainActivity">

    <WebView
        android:id="@+id/main_text"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>
</RelativeLayout>
```



Código Java carregando html

```
public class MainActivity extends AppCompatActivity {  
  
    @SuppressWarnings("SetJavaScriptEnabled")  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
  
        WebView webView = (WebView) findViewById(R.id.main_webview);  
        // Habilitar Java Script. Desabilitado por segurança!  
        webView.getSettings().setJavaScriptEnabled(true);  
        webView.getSettings().setDomStorageEnabled(true);  
        webView.loadUrl("file:///android_asset/index.html");  
    }  
}
```



Permissões no Manifest

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="venturus.com.venturus4tech">

    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="Venturus4Tech"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN"/>

                <category android:name="android.intent.category.LAUNCHER"/>
            </intent-filter>
        </activity>
    </application>

</manifest>
```



Tema do app

```
<resources>
```

```
  <!-- Base application theme. -->
```

```
  <style name="AppTheme" parent="Theme.AppCompat.Light.NoActionBar">
```

```
    <!-- Customize your theme here. -->
```

```
    <item name="colorPrimary">@color/colorPrimary</item>
```

```
    <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
```

```
    <item name="colorAccent">@color/colorAccent</item>
```

```
  </style>
```

```
</resources>
```



Projeto de exemplo

<https://goo.gl/j5wgeG>



Material de apoio

Documentação oficial

<https://developer.android.com>

Fórum Android Dev Br

<http://slack.androiddevbr.org/>

Mediu Android Dev Br

<https://medium.com/android-dev-br>





Rafael de Araujo



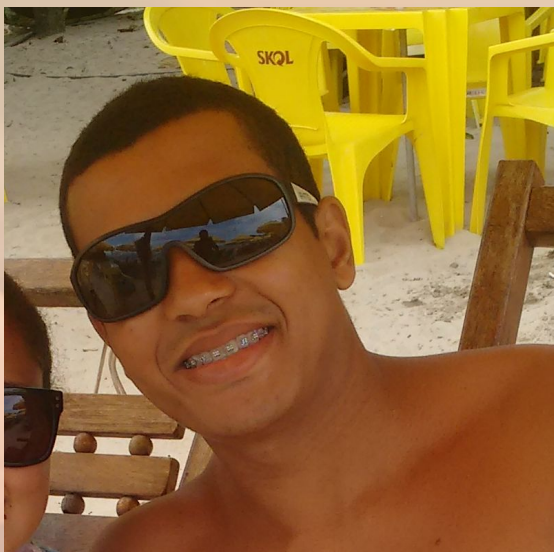
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Obrigado!

