

Introdução a Programação Java para Google Android



DESENVOLVIMENTO ANDROID

FRAGMENTS

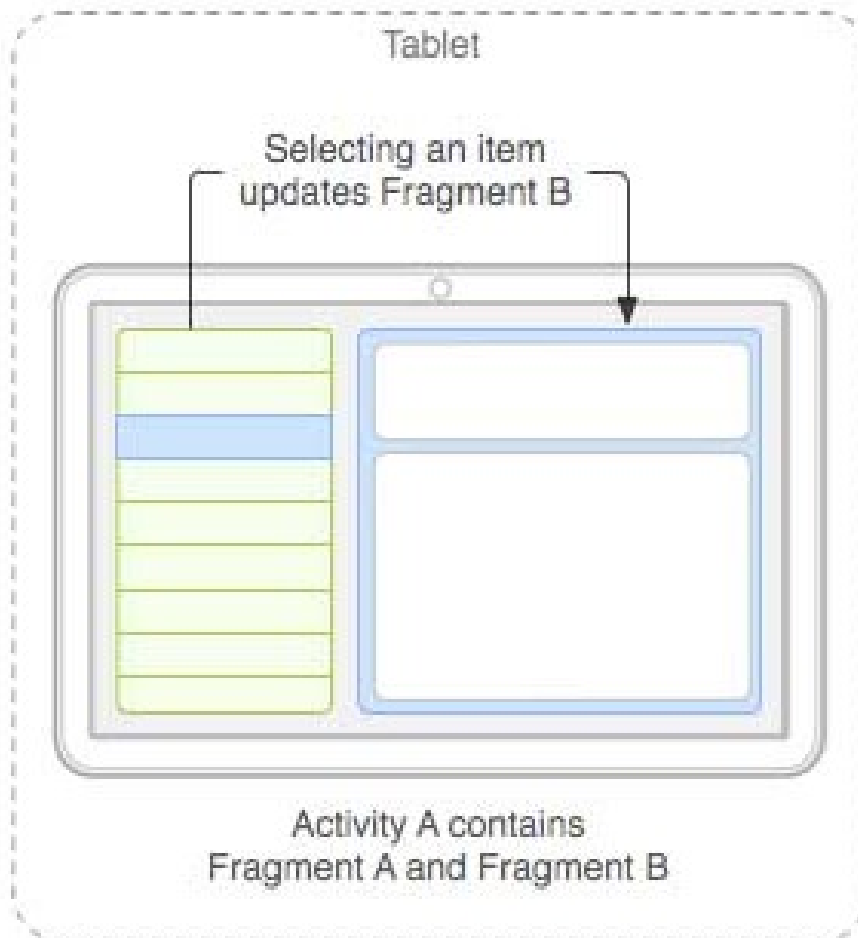
ÍNDICE

- FRAGMENTS
- EXEMPLO
- EXERCÍCIO

- É um tipo de *sub-activity*
- Layout, comportamento e ciclo de vidas próprios
- É possível adicionar/remover fragments durante execução
- Um fragmento pode ser reutilizado em diferentes activities
- Uma activity pode possuir diversos fragmentos
- Um fragmento tem dependência com a Activity master do qual foi chamado

1 activity e 2 fragments

2 activities e 2 fragments

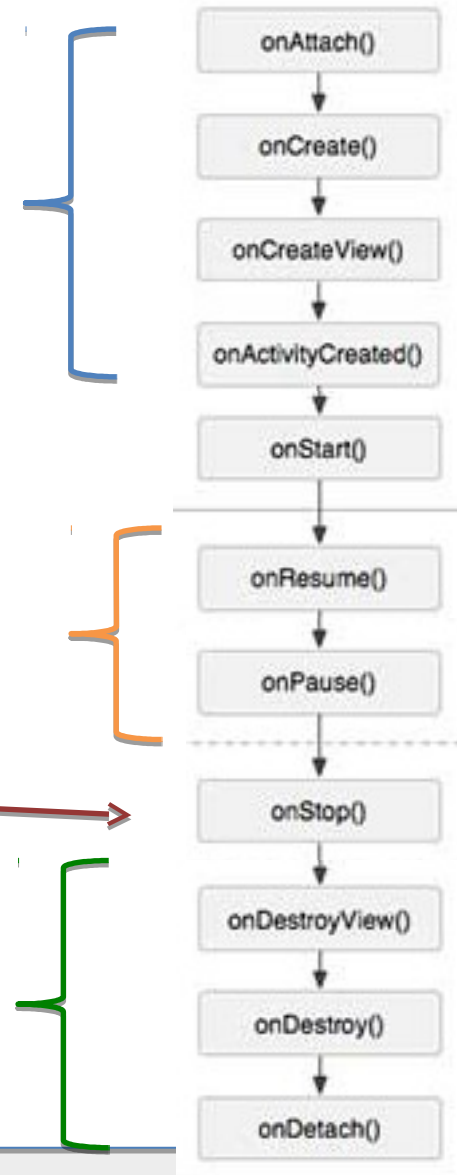


→ **Fase 1: fragment é criado**

→ **Fase 2: fragment se torna visível**

→ **Fase 3: background mode**

→ **Fase 4: destruído**



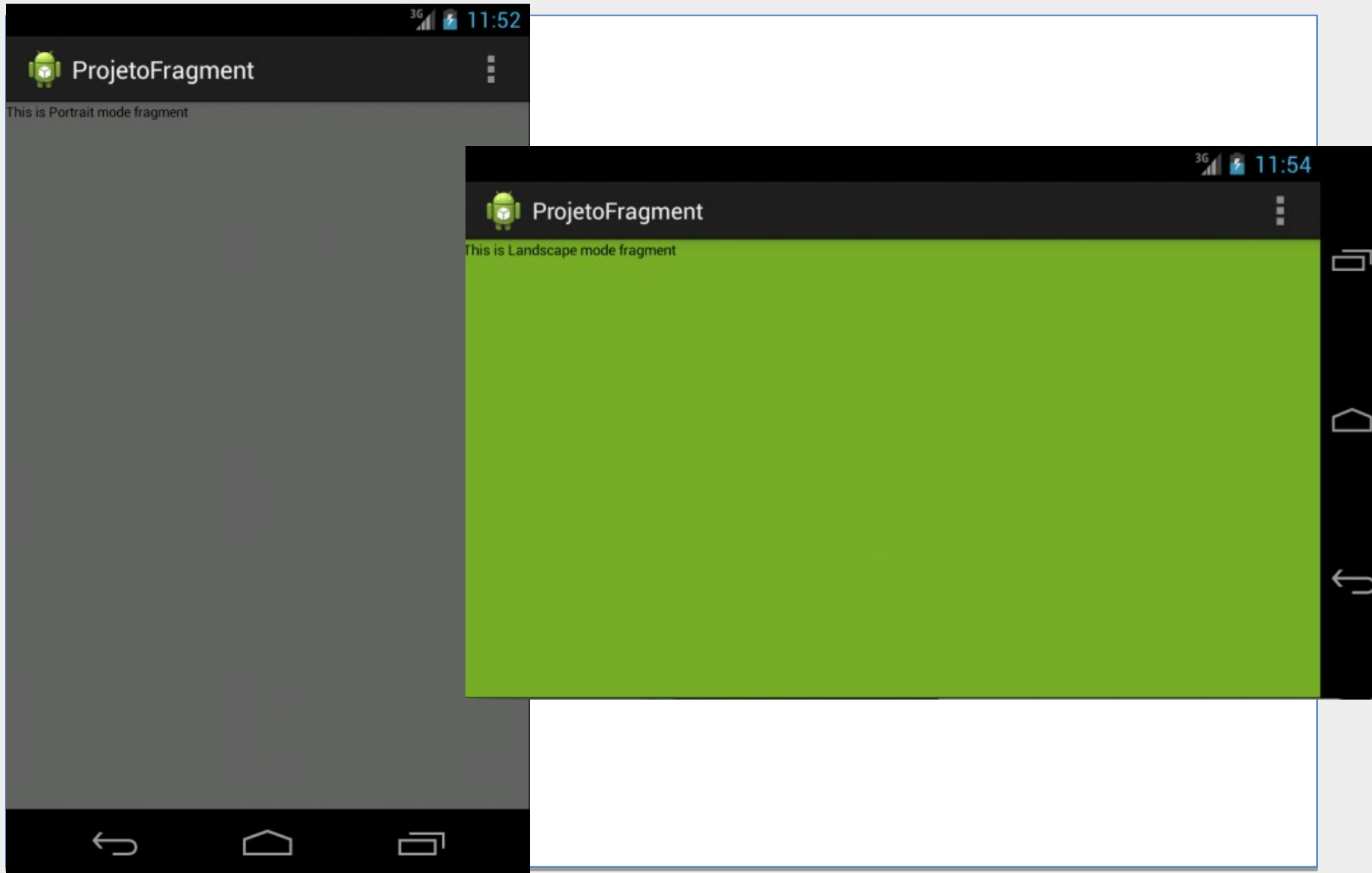
- **Passo 1:** Definir quantos fragmentos deseja utilizar
- **Passo 2:** Baseado no número de fragmentos, é necessário criar a mesma quantidade de classes herdando da superclasse **Fragment**

Obs.: A classe Fragment possui os métodos citados na página anterior com as funções padrões. É possível sobrecarrega-las.

- **Passo 3:** Para cada fragmento é necessário criar arquivos de layout XML que representam o fragmento
- **Passo 4:** Programar a Activity que controla os fragmentos

EXEMPLO

FIAP



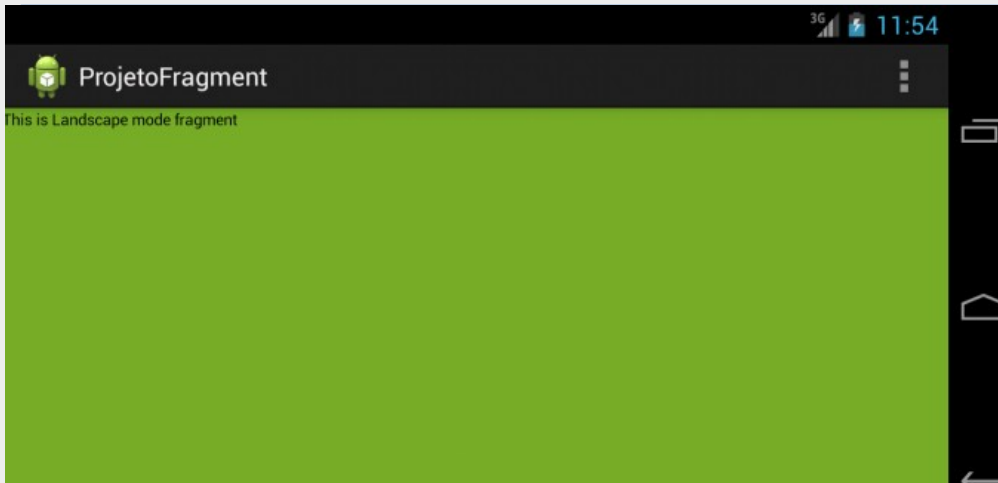
fn+ctrl+f11



```
<?xml version="1.0" encoding="utf-8"?>
  <LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#666666">

    <TextView
      android:layout_width="fill_parent"
      android:layout_height="wrap_content"
      android:text="@string/portrait_message"
      android:textColor="#000000"
      android:textSize="20sp" />

  </LinearLayout>
```



```
<?xml version="1.0" encoding="utf-8"?>
  <LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#7bae16">

    <TextView
      android:layout_width="fill_parent"
      android:layout_height="wrap_content"
      android:text="@string/landscape_message"
      android:textColor="#000000"
      android:textSize="20sp" />

  </LinearLayout>
```

EXEMPLO

The screenshot displays the Android Studio environment. The top bar shows the project name 'ProjetoFragment' and the time '11:52'. The main editor area contains the following XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:baselineAligned="false"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="horizontal">

    <fragment
        android:name="com.example.projetoofragments"
        android:id="@+id/l_fragment"
        android:layout_weight="1"
        android:layout_width="0dp"
        android:layout_height="match_parent" />

    <fragment
        android:name="com.example.projetoofragments"
        android:id="@+id/p_fragment"
        android:layout_weight="2"
        android:layout_width="0dp"
        android:layout_height="match_parent" />

</LinearLayout>
```

On the right side, there is a preview of the UI, showing a green rectangular area representing the layout. The bottom bar shows the Android navigation icons (back, home, recent apps).

EXEMPLO

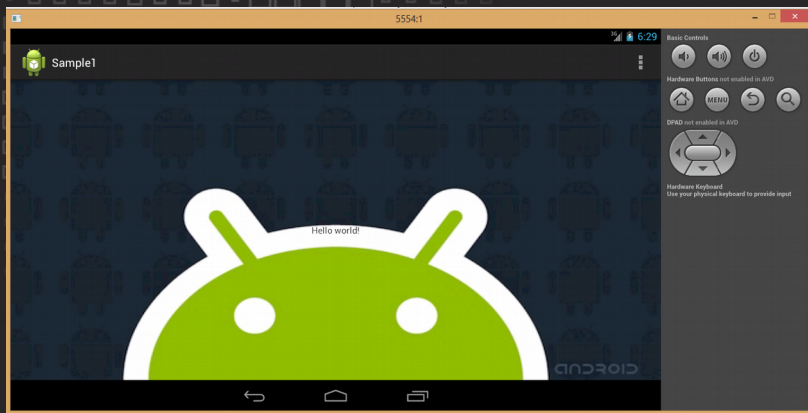
```
@SuppressWarnings("NewApi")
public class LandscapeFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {
        return inflater.inflate(R.layout.l_fragment, container, false);
    }
}
```

```
@SuppressWarnings("NewApi")
public class PortraitFragment extends Fragment {

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {
        return inflater.inflate(R.layout.p_fragment, container, false);
    }
}
```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
  
    Configuration config = getResources().getConfiguration();  
  
    FragmentManager fragmentManager = getFragmentManager();  
    FragmentTransaction fragmentTransaction = fragmentManager.beginTransaction();  
  
    if (config.orientation == Configuration.ORIENTATION_LANDSCAPE) {  
        LandscapeFragment ls_fragment = new LandscapeFragment();  
        fragmentTransaction.replace(android.R.id.content, ls_fragment);  
    } else {  
        PortraitFragment pm_fragment = new PortraitFragment();  
        fragmentTransaction.replace(android.R.id.content, pm_fragment);  
    }  
    fragmentTransaction.commit();  
}
```



Copyright © 2016 - Profs. Me. Leandro Rubim, Prof. Me. Thiago T. I. Yamamoto e Prof. Me. Edson Sensato

Todos direitos reservados. Reprodução ou divulgação total ou parcial deste documento é expressamente proibido sem o consentimento formal, por escrito, do Autor.

