

Criando Interfaces

Fundamentos

- ✦ Views
- ✦ View Groups
 - ✦ Agrupa outras Views
- ✦ Programaticamente
- ✦ XML

Programmaticamente

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);

    TextView myTextView = new TextView(this);
    setContentView(myTextView);
    myTextView.setText("Hello, Android");
}
```


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">
    <TextView
        android:text="@string/hello_world"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```


XML

- ✦ Similar ao HTML
- ✦ Recomendado pelo Google
- ✦ Altamente customizável
- ✦ Desempenho

Dimensões

- ✦ px (screen pixels)
- ✦ in (physical inches)
- ✦ pt (physical points)
- ✦ mm (physical millimeters)
- ✦ dp (density-independent pixels) ✓
- ✦ sp (scale-independent pixels) ✓

Dimensões

- ✦ `match_parent`
- ✦ `wrap_content`
- ✦ `fill_parent`

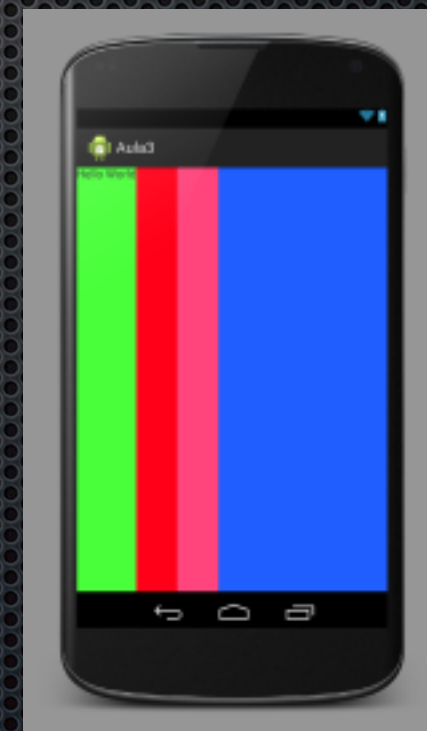
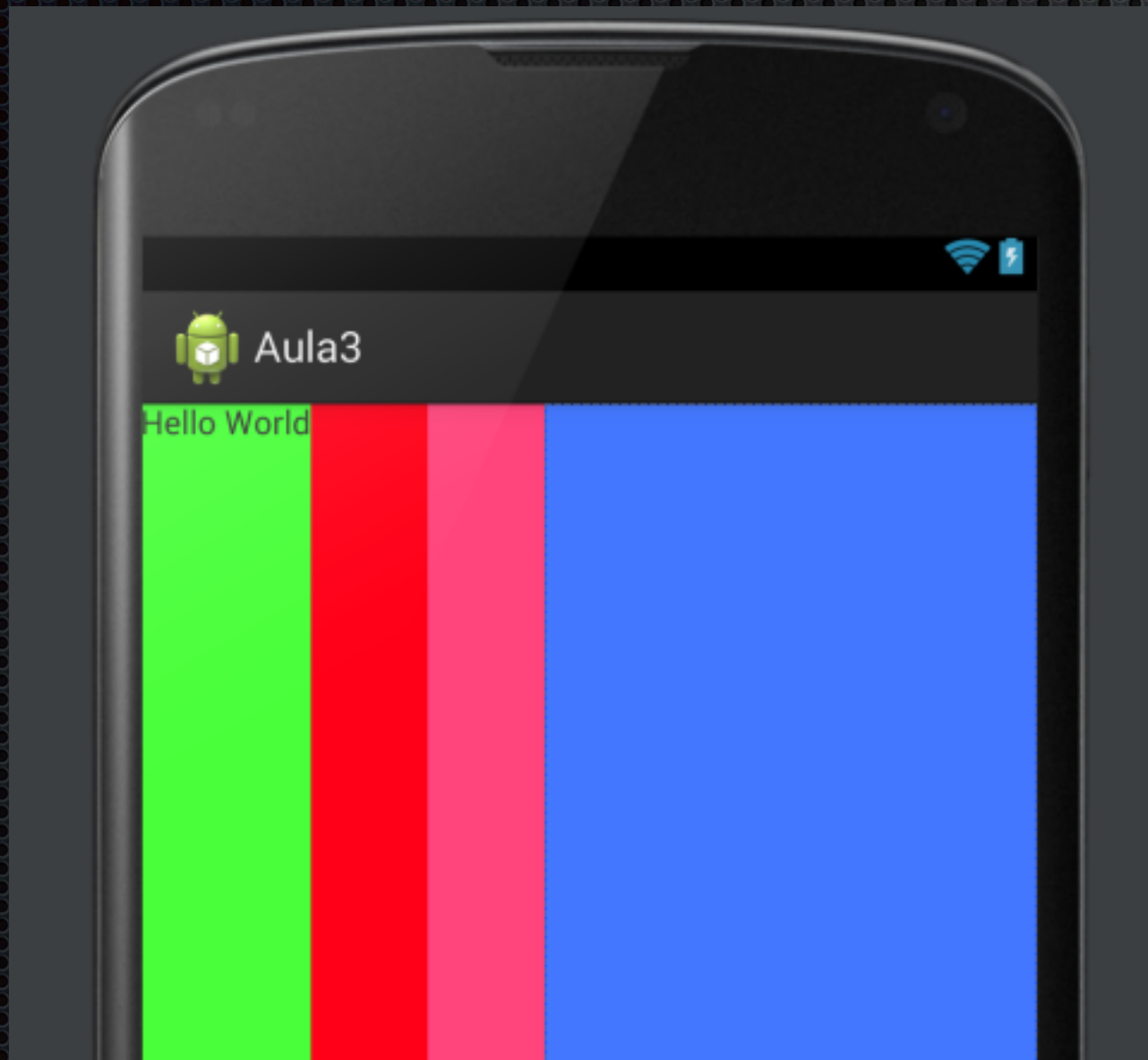
Layouts

- ✦ LinearLayout
- ✦ RelativeLayout
- ✦ FrameLayout
- ✦ ~~AbsoluteLayout~~

LinearLayout

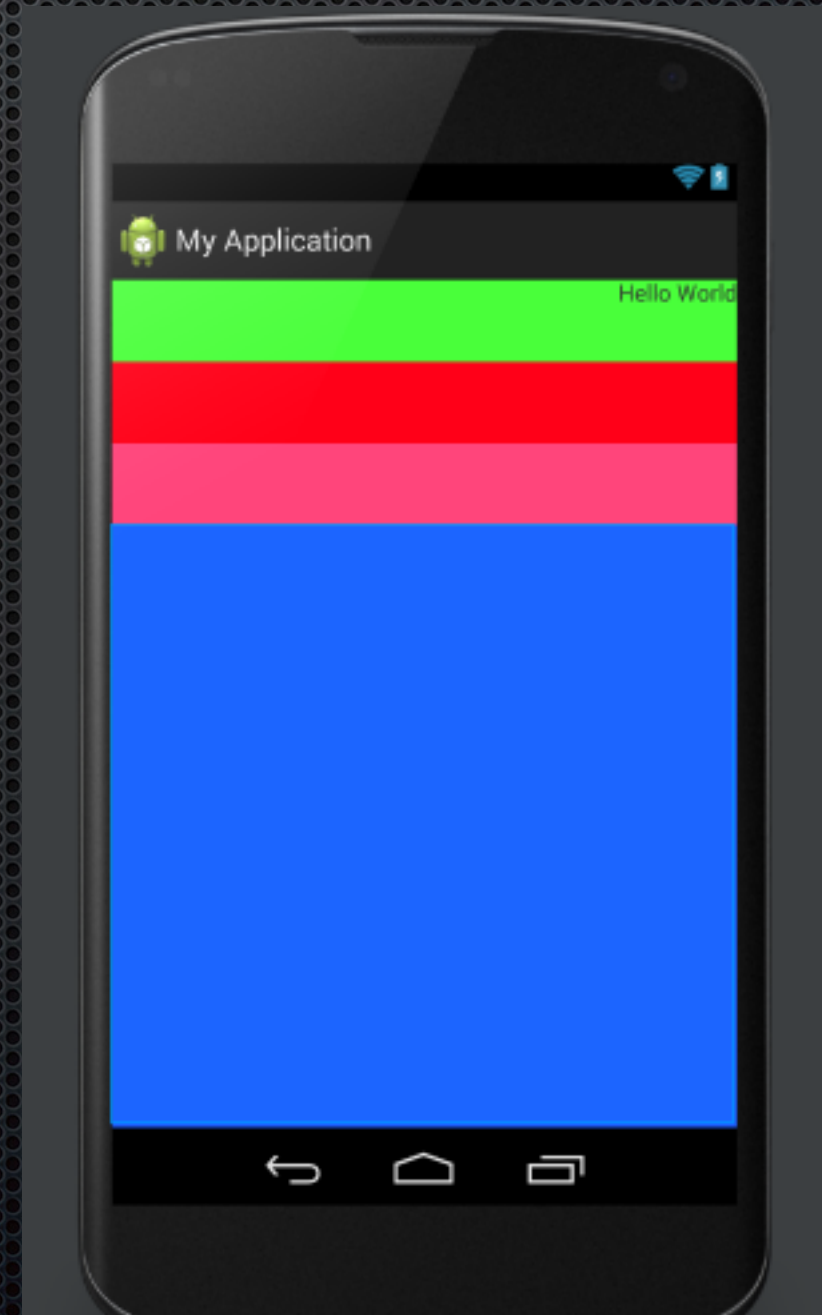
- ✦ Componentes lado a lado (fila)
- ✦ Alinhamento horizontal ou vertical
- ✦ Gravity define o alinhamento

Exercício LinearLayout



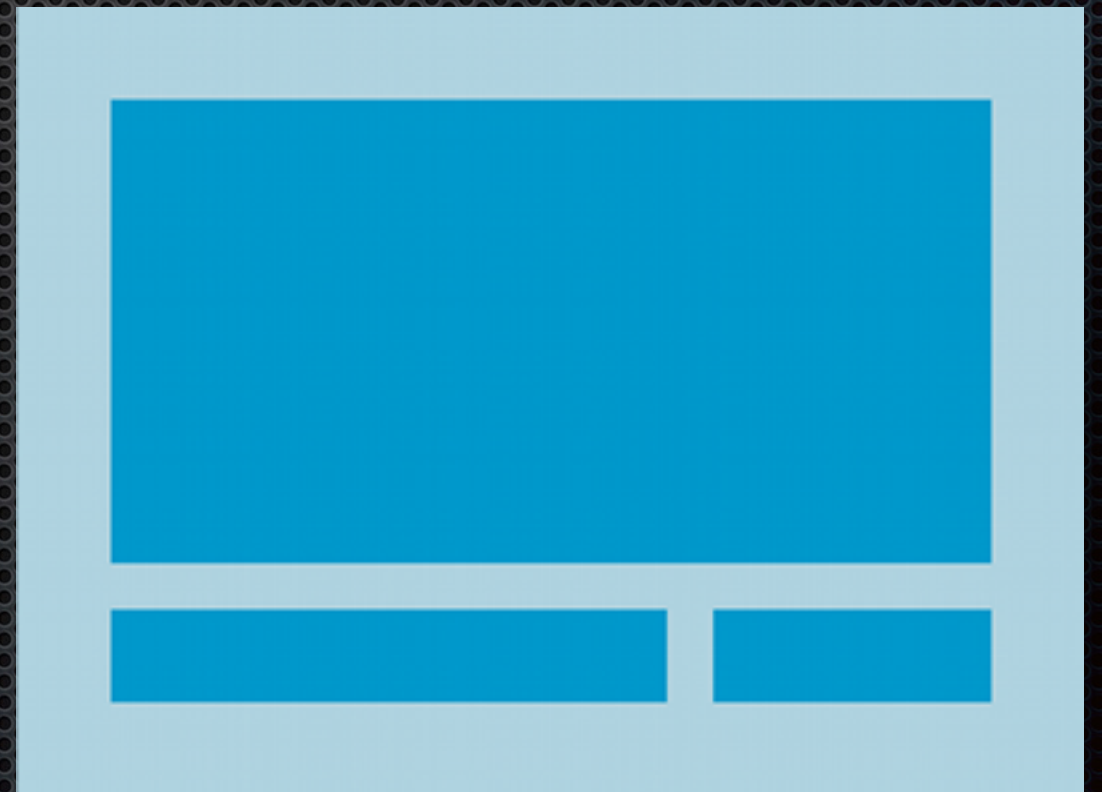
Exercício LinearLayout

- android:orientation?!



RelativeLayout

- ✦ Regras de posicionamento
- ✦ Baixa hierarquia de Layout
- ✦ Portabilidade ✓



RelativeLayout

- `android:layout_toRightOf="@+id/textView"`



My Application

Sed ut perspiciatis unde omnis

Ok

RelativeLayout

- ✦ `android:layout_centerHorizontal="true"`

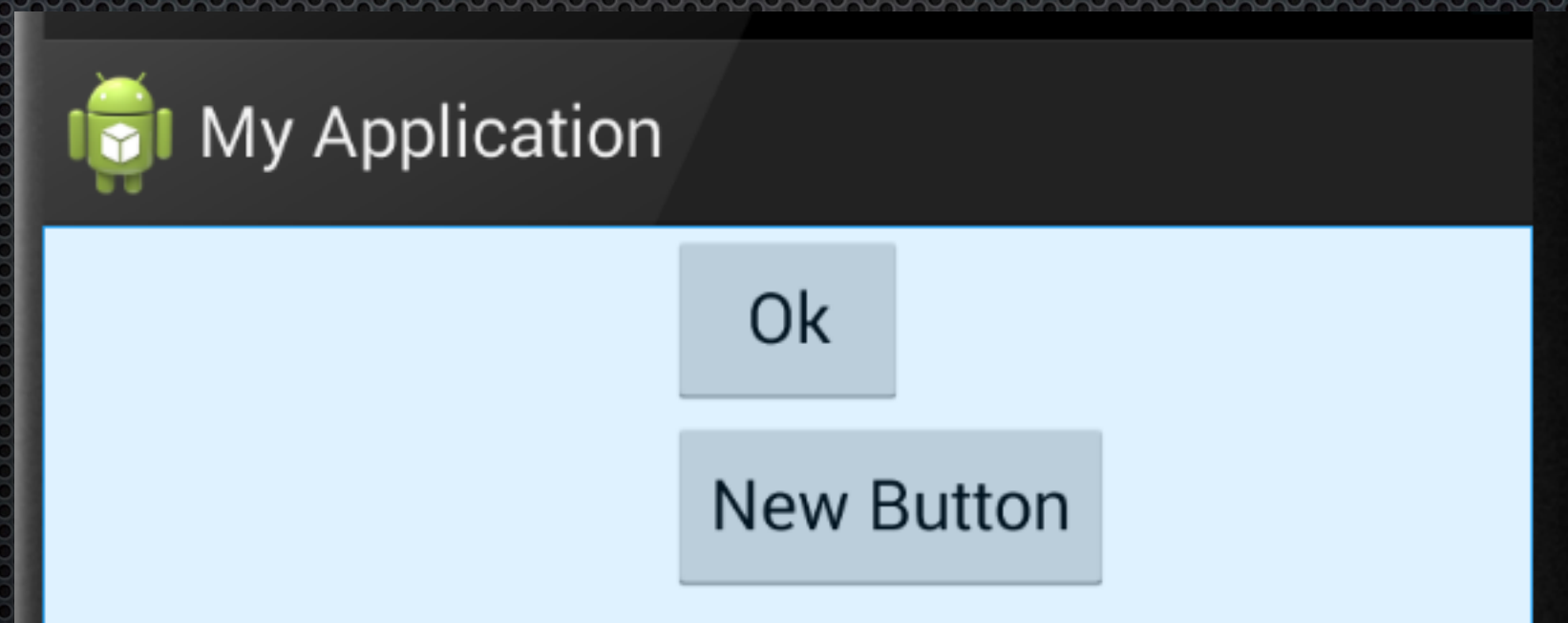


My Application

Ok

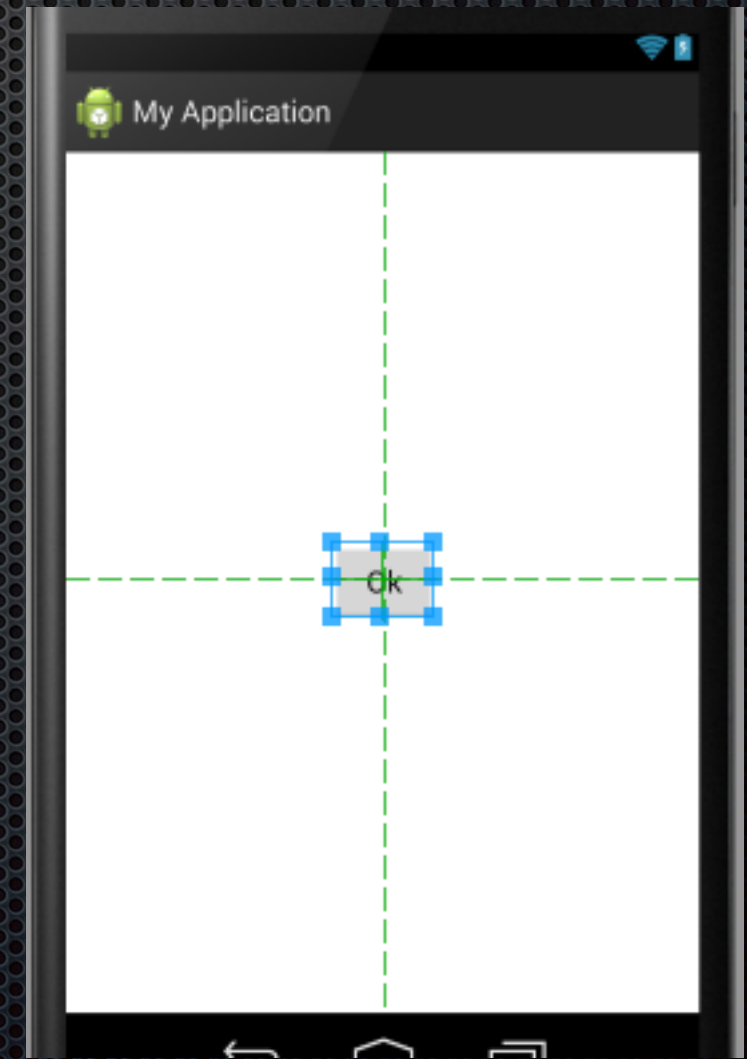
RelativeLayout

- `android:layout_below="@+id/button"`
`android:layout_alignLeft="@+id/button"`

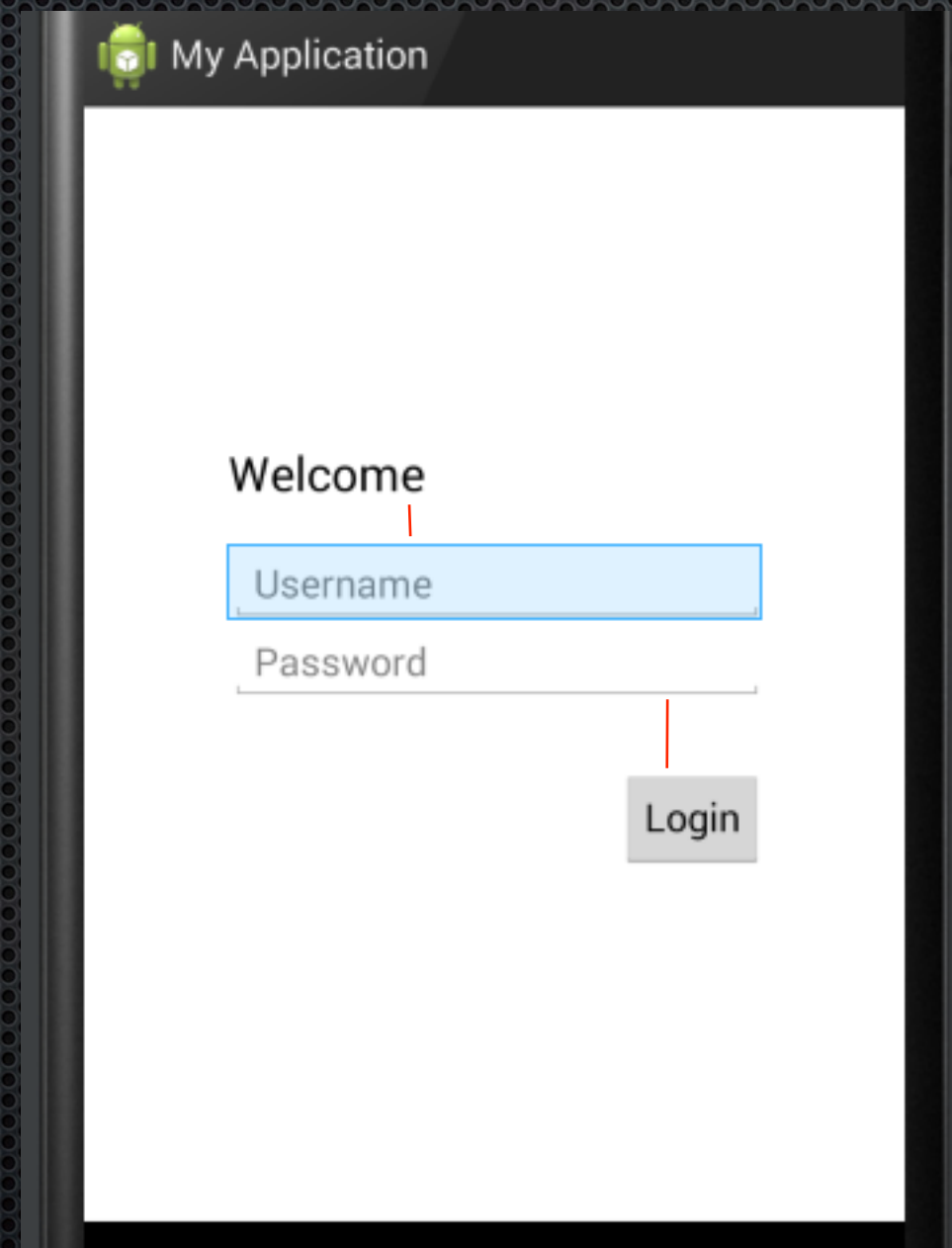


RelativeLayout

- ✦ `layout_centerVertical="true"`
`layout_centerHorizontal="true"`



Exercício RelativeLayout



FrameLayout

- ✦ Sobrepor Views
- ✦ Performático

Referências

- ✦ <http://developer.android.com/reference/android/view/ViewGroup.LayoutParams.html>
- ✦ <http://developer.android.com/guide/topics/ui/layout/relative.html>