

**SEJAM
BEM-VINDOS!**

Um pouco sobre mim

jorgelimajr.com

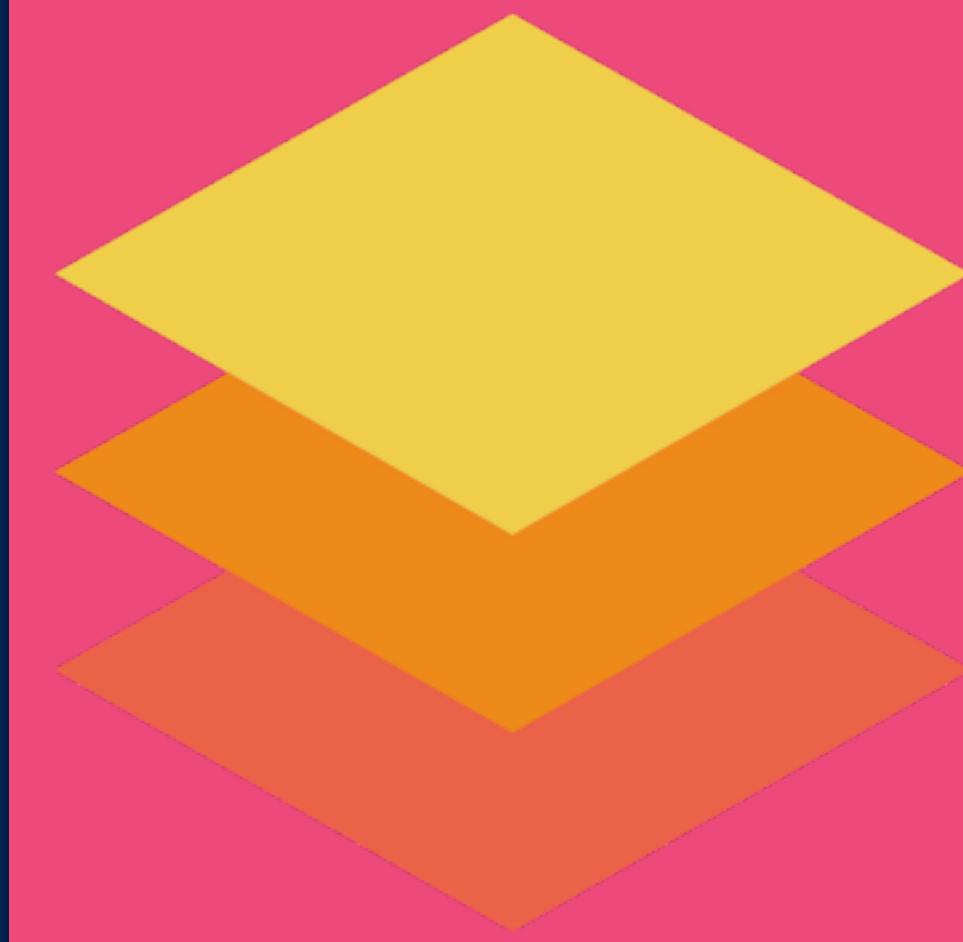




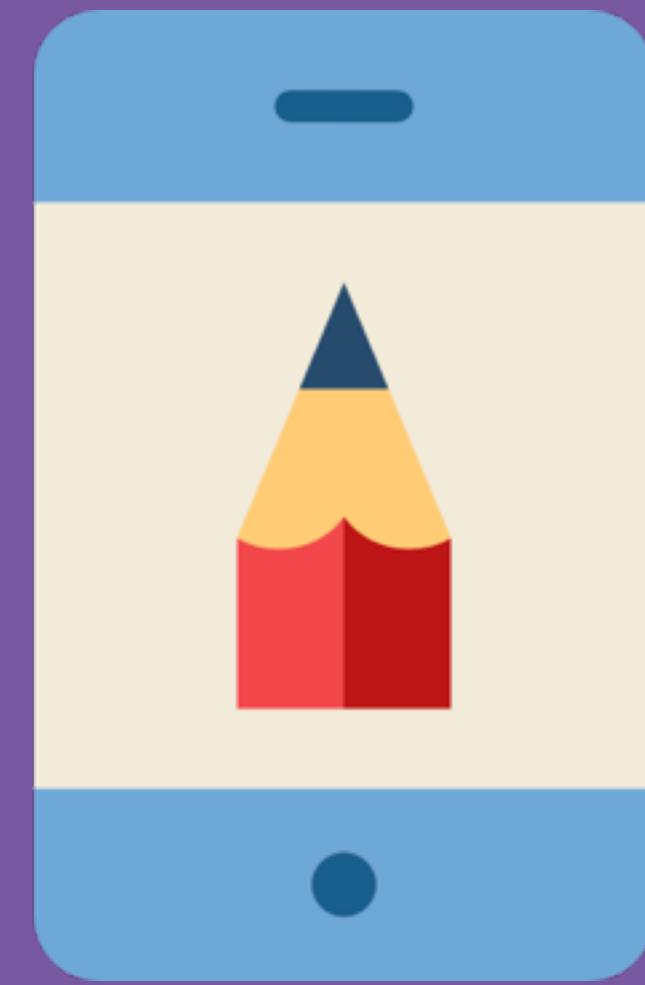
O QUE
vamos fazer?



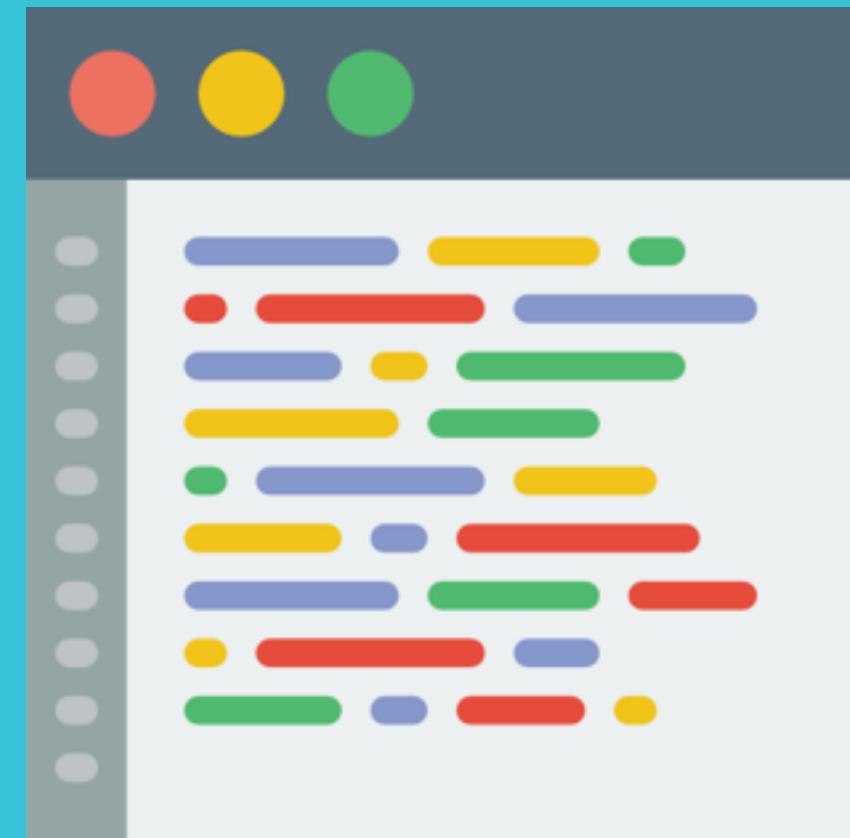
CRIAR



EXPOR-
TAR



PROTO-
TIPAR



DESEN-
VOLVER



CRIAR

Sketch App



Sketch App



≠





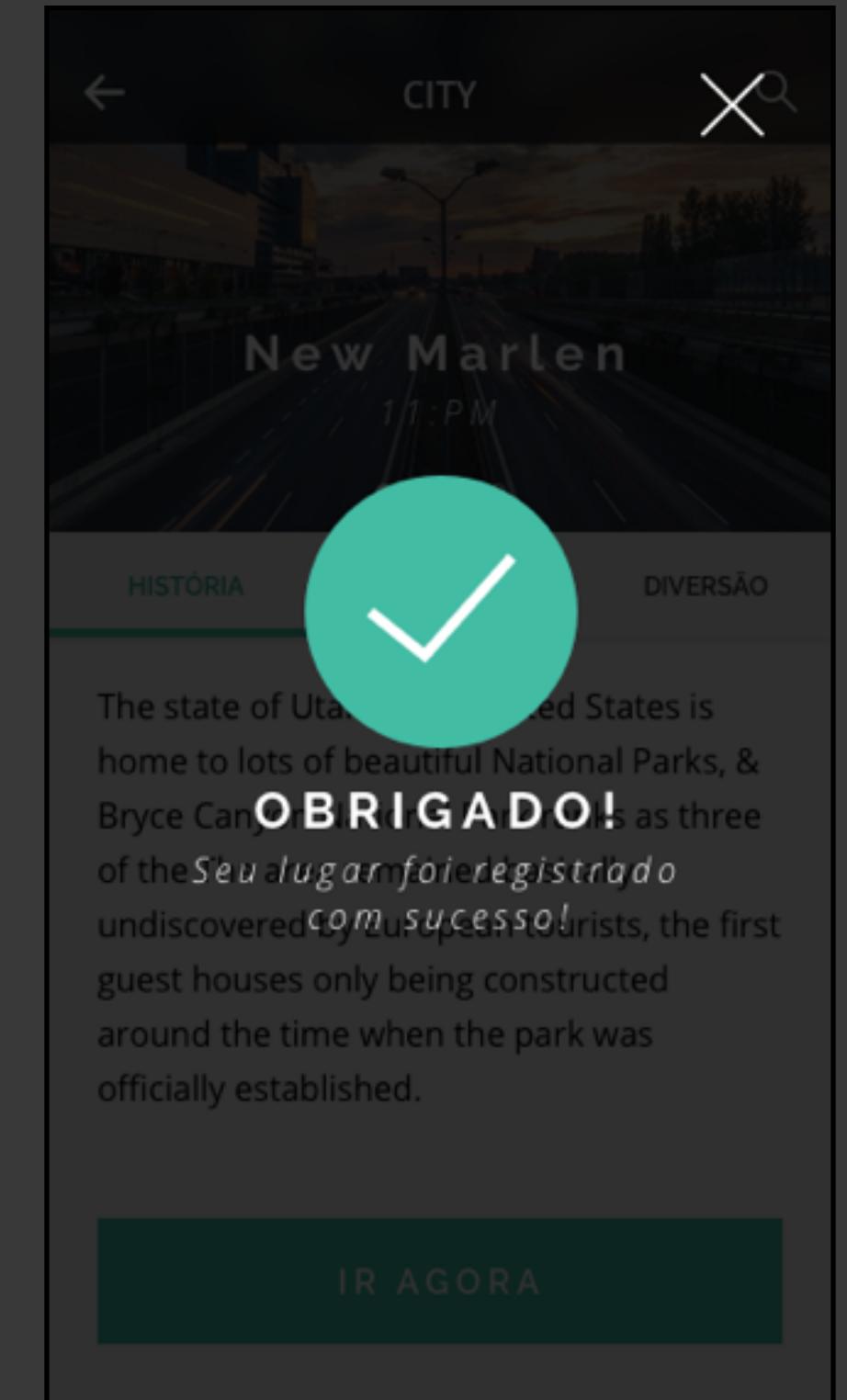
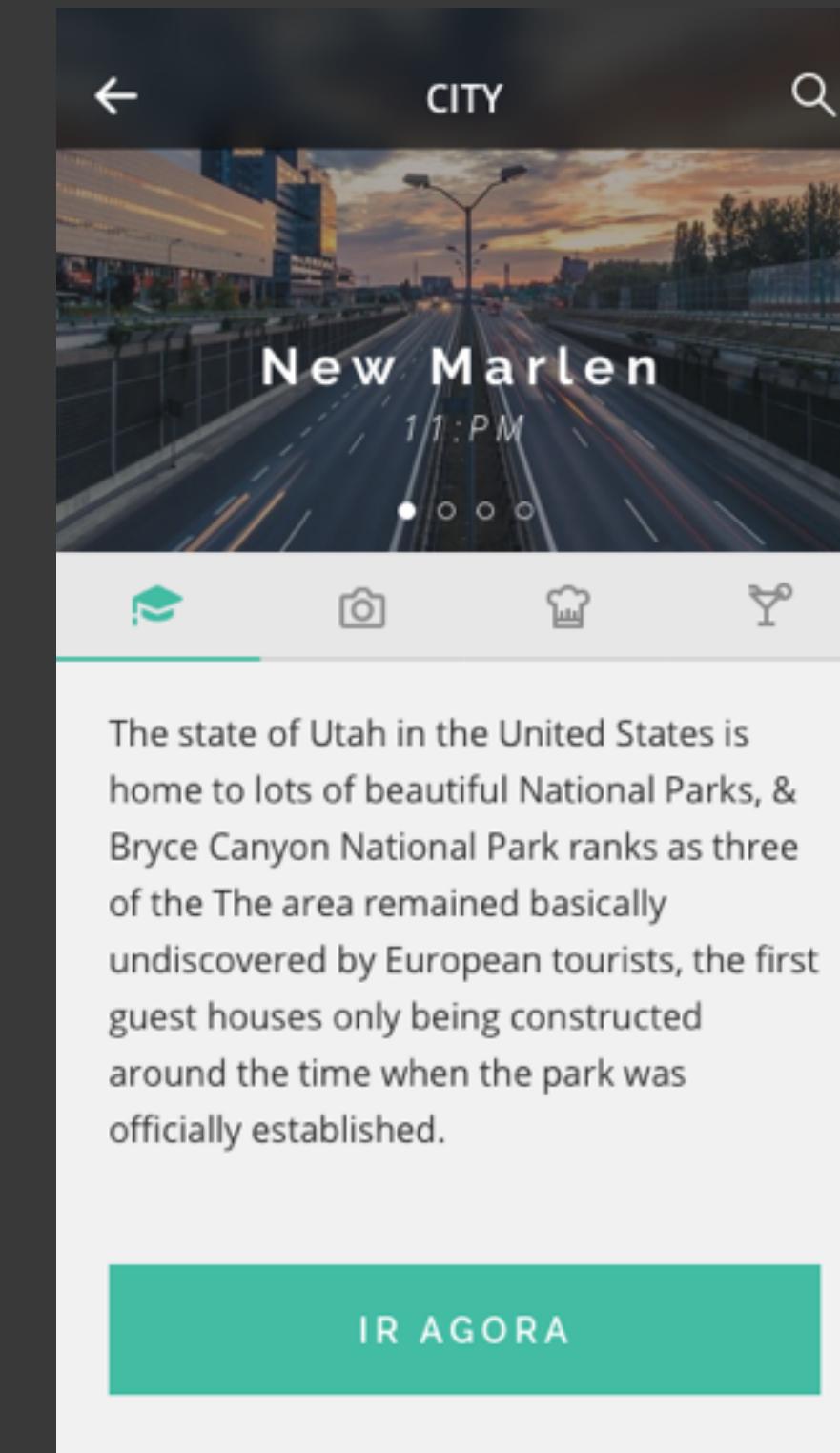
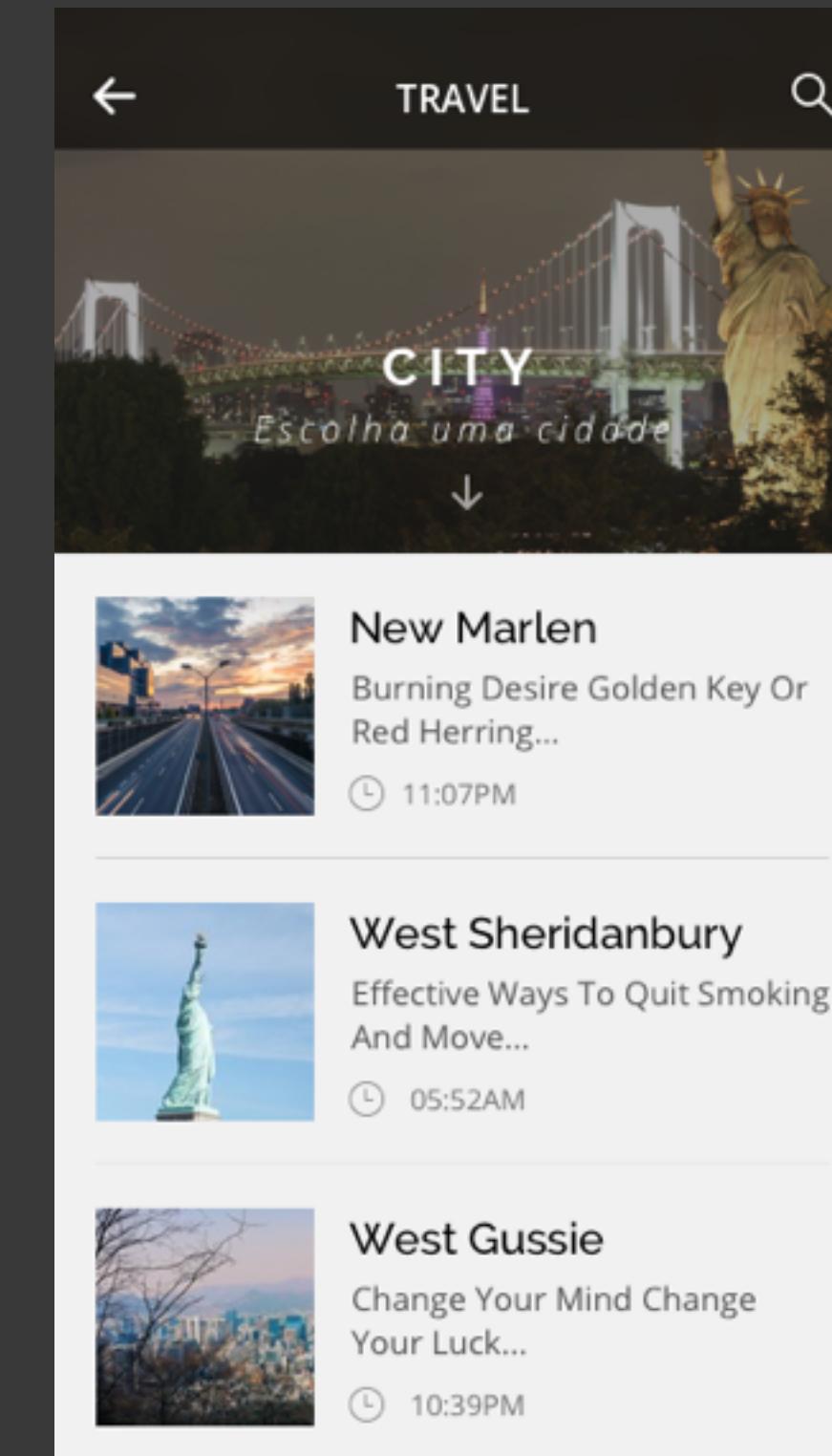
Sketch App



- Mais leve;
 - Foco na interface;
 - Integrado com outras ferramentas;
 - etc
-
- <https://medium.com/sketch-app-sources/por-que-o-sketch-%C3%A9-o-queridinho-dos-ui-designers-993fdf73b673#.qrec3gexx>.



Sketch App

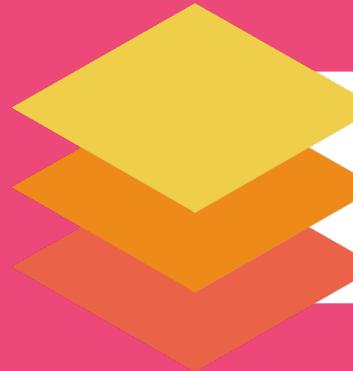






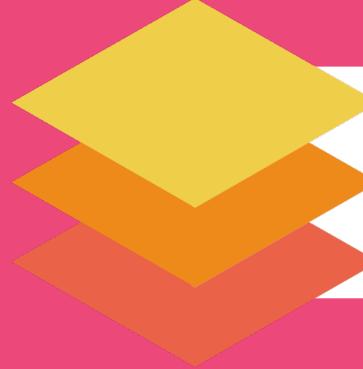
EXPORTAR

Métricas mobile



Métricas Mobile





DPI

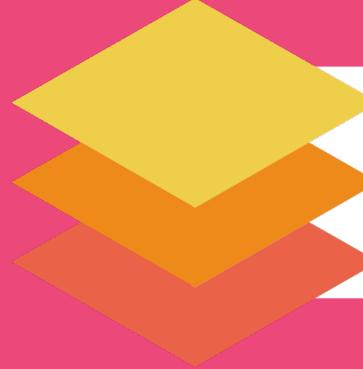
Pontos por polegada

É o número de gotas de tinta colocadas em uma polegada.

PPI

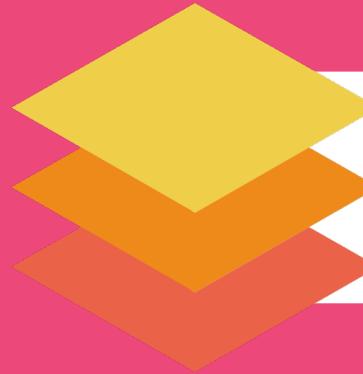
Pixel por polegada

É o número de pixels que a tela exibe por polegada

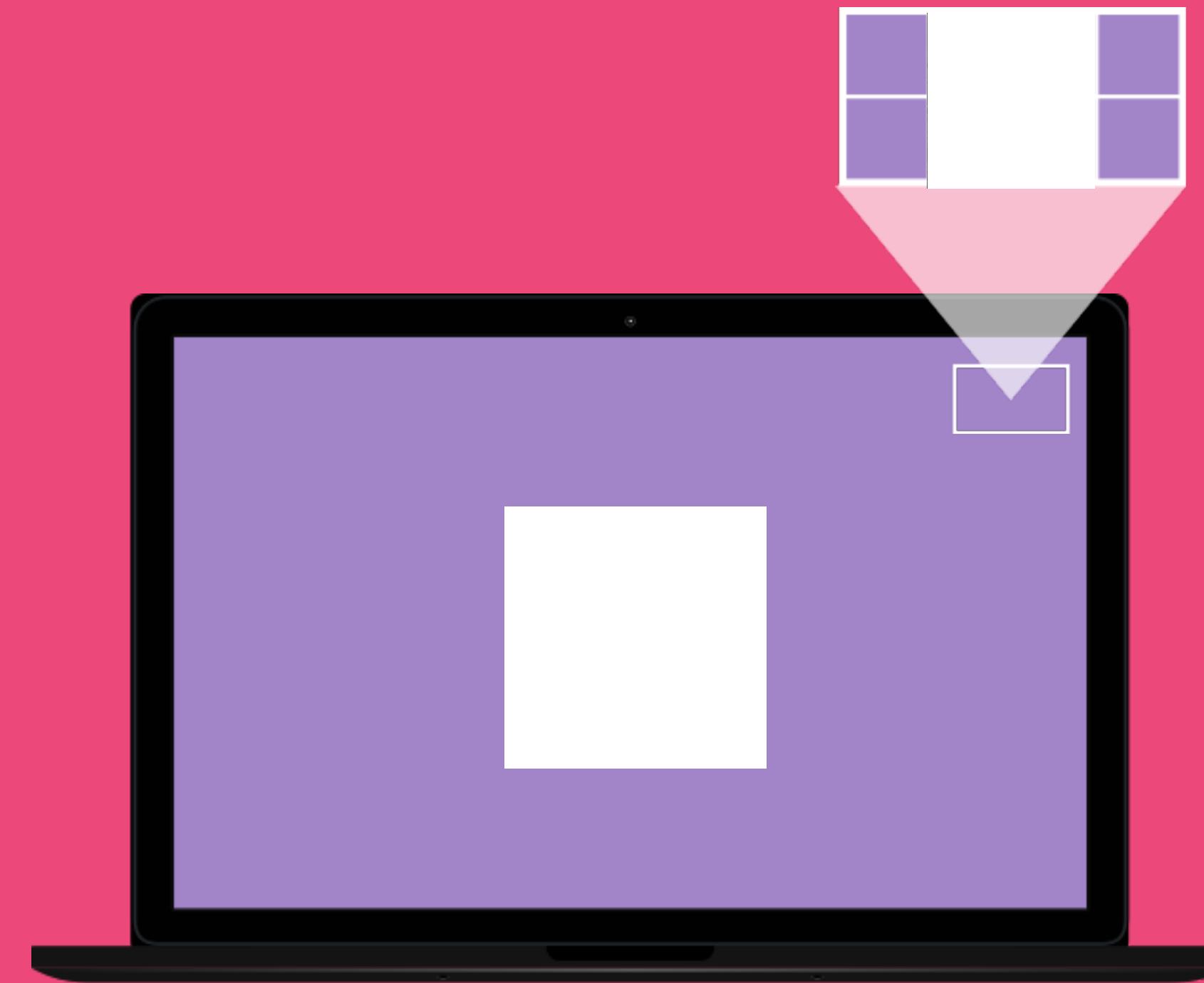


Quanto mede
100 px?

Depende do tamanho da
tela e densidade do device



Métricas Mobile

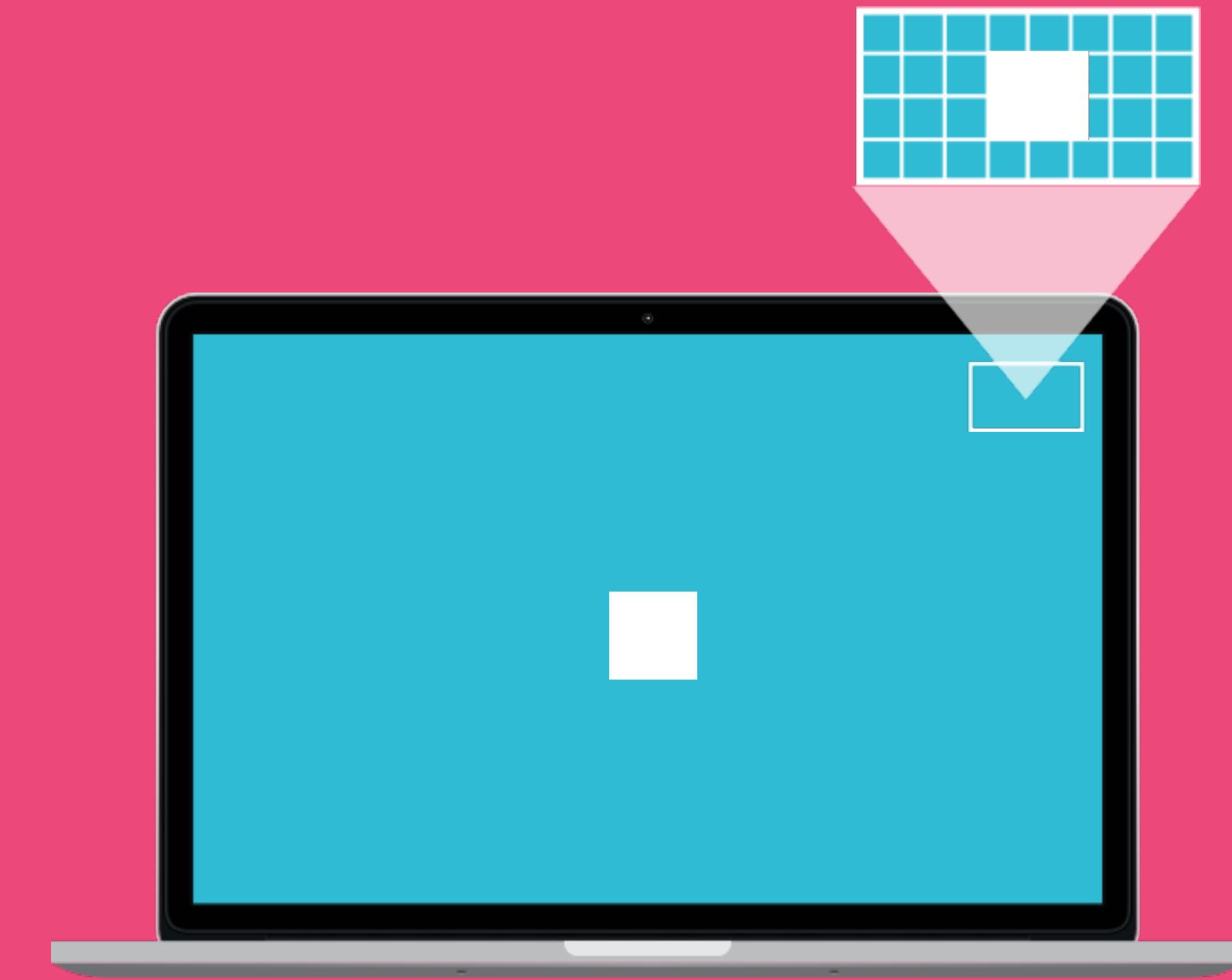


Dell XPS FHD

~13,3"

1920 x 1080

166PPI

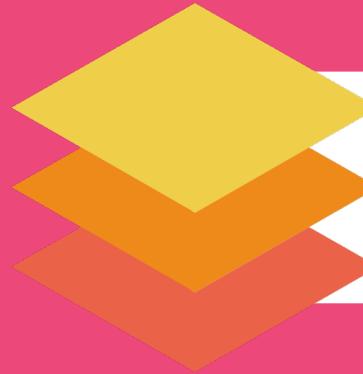


Macbook Pro Retina

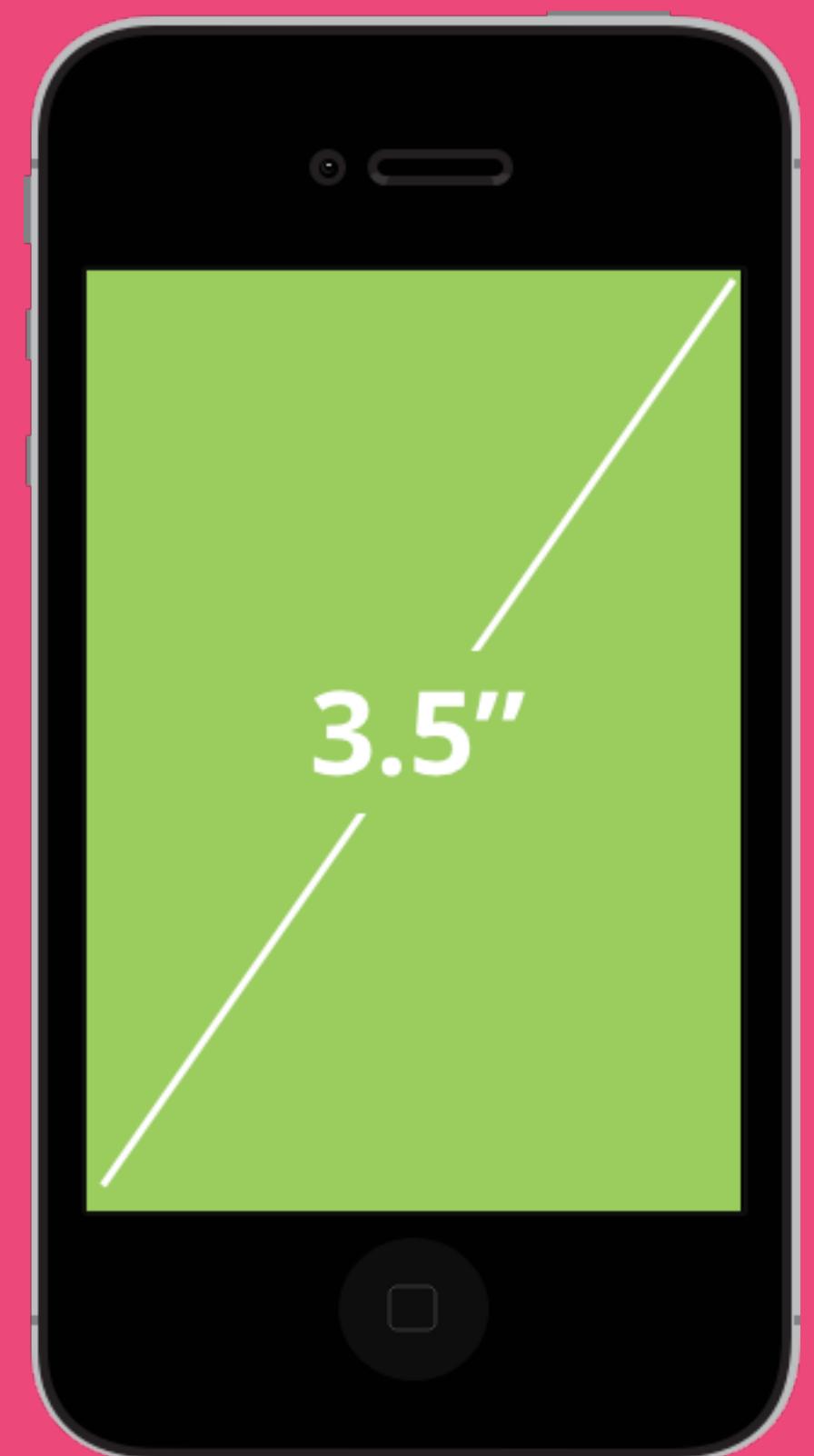
~13,3"

2560x1600

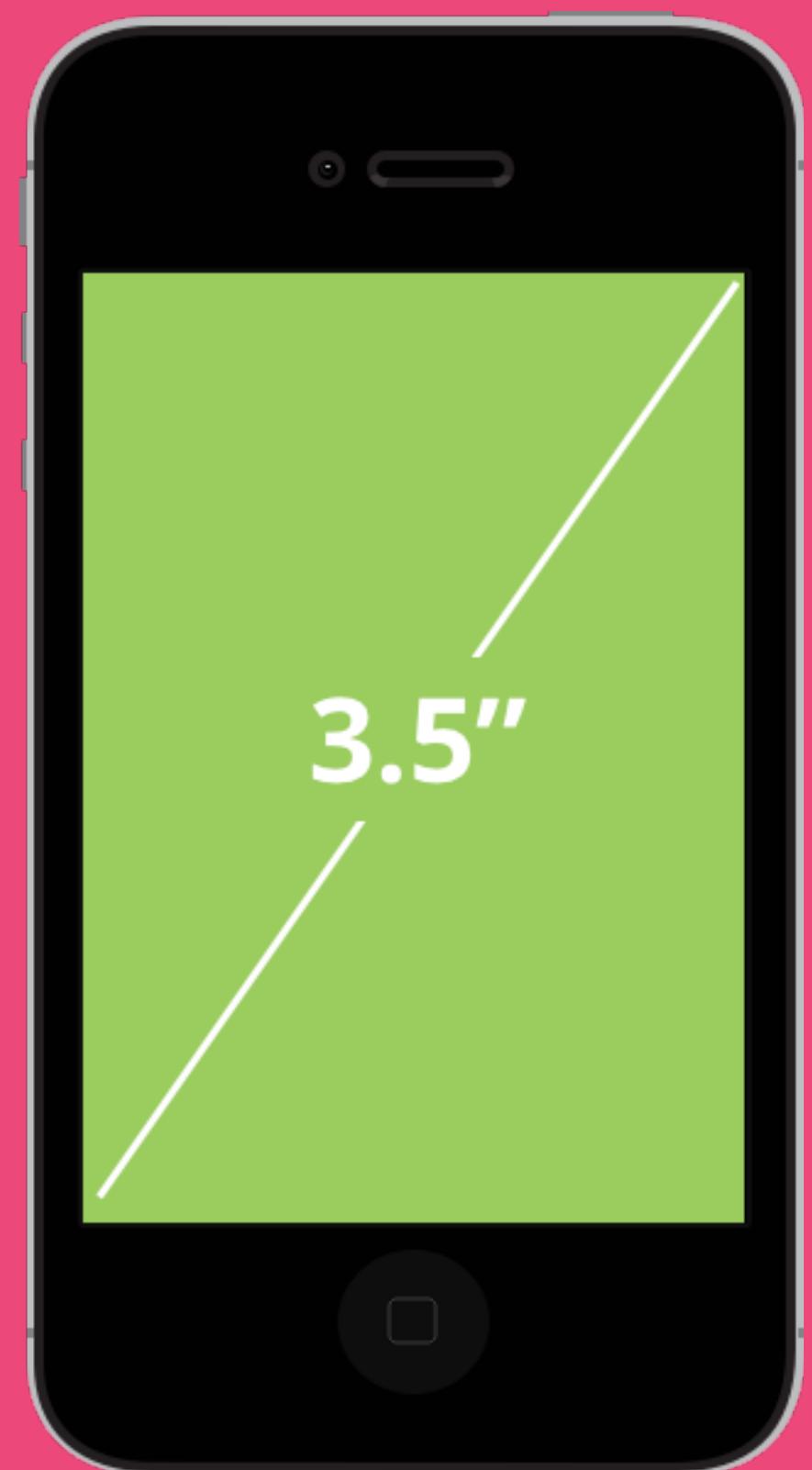
227PPI



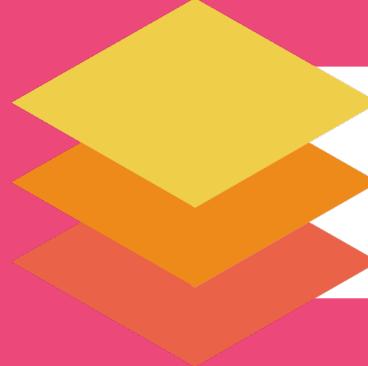
iPhone 3Gs
480 x 320
163PPI



×



iPhone 4s
960 x 640
326PPI

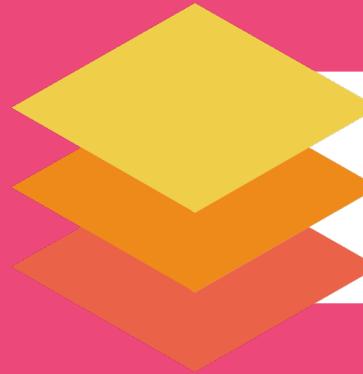


Métricas Mobile

TENSO, NÉ?

Se não fossem os...

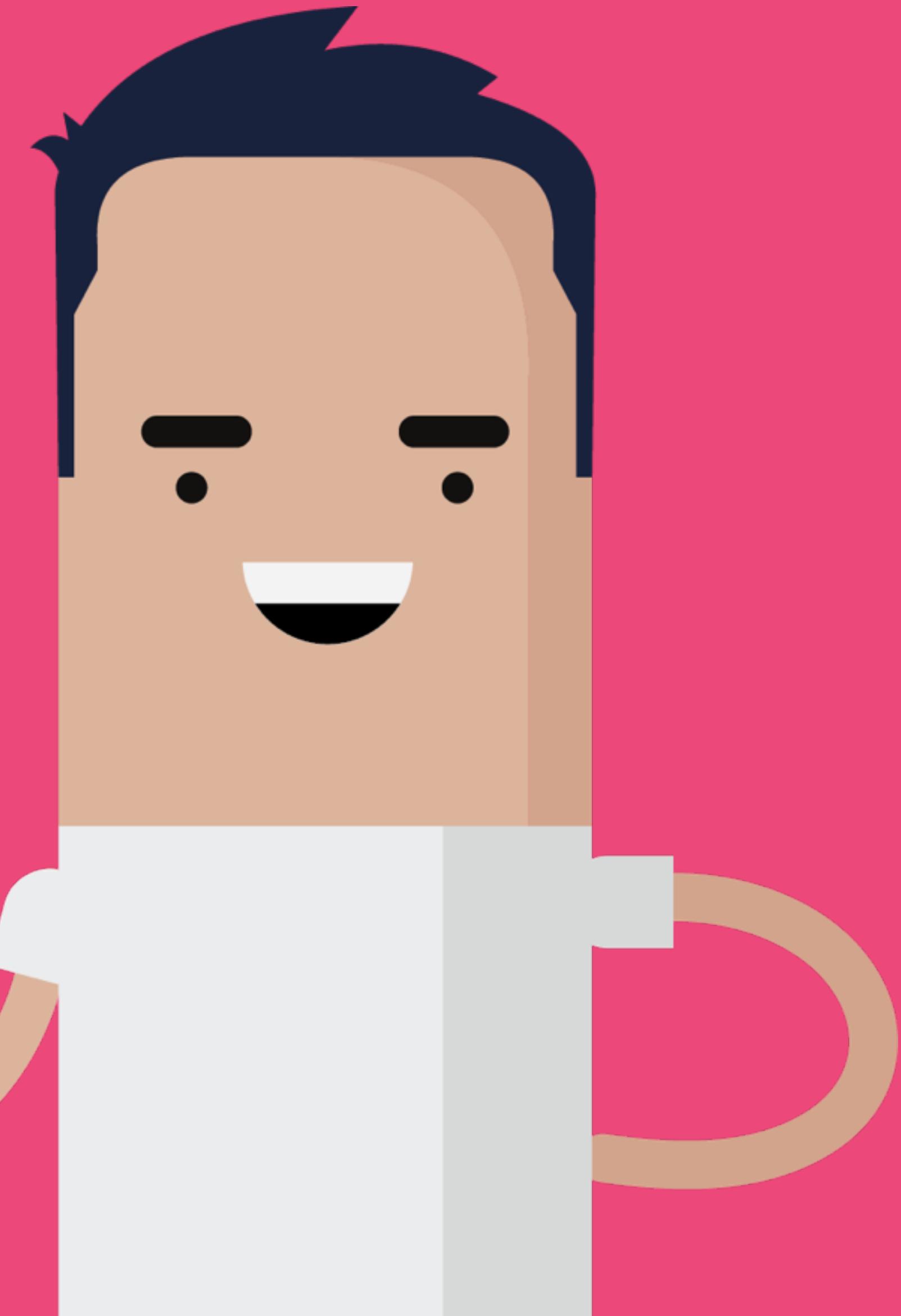
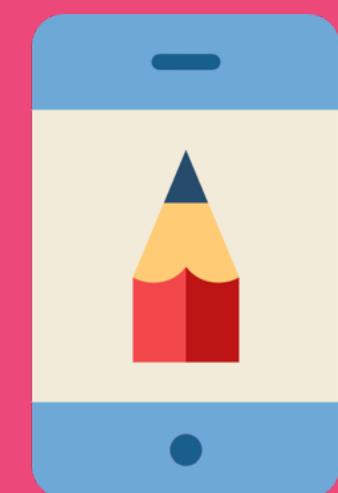


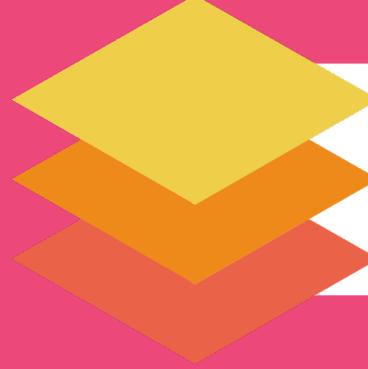


Métricas Mobile

MULTIPLIERS!

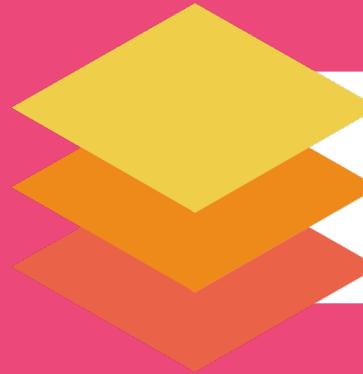
1x, 2x, 3x, 4x...





WTM?

O multiplicador é o "salvador matemático" usado para converter seu projeto para todos os diferentes PPIs.



Métricas Mobile

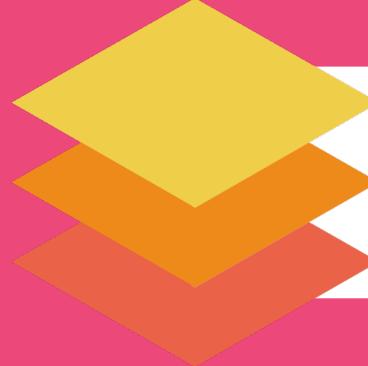


2X



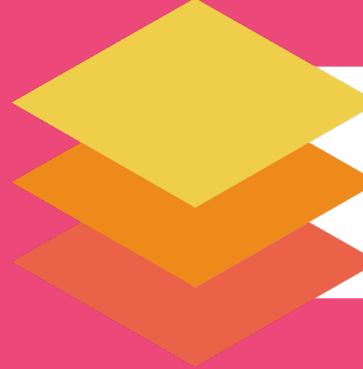
200 x 200px
10px rounded corners
50px padding
100pt font-size

400 x 400px
20px rounded corners
100px padding
200pt font-size



???

Em qual tamanho devo especificar
meu projeto?

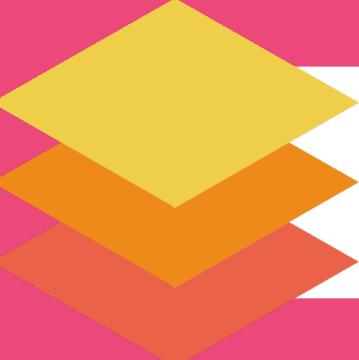


200 x 200**dp**
10**dp** rounded corners
50**dp** padding
100**sp** font-size

DP ou PT

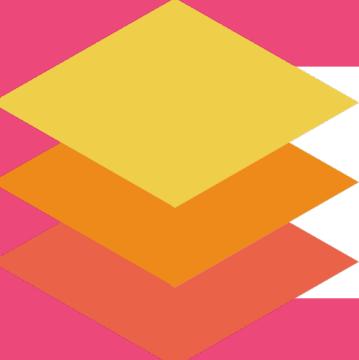
(Device/density independent Pixel or Point)
É a unidade de medida que você pode usar para especificar multi-dispositivo.

DP é para Android e PT é para Apple, mas eles são essencialmente os mesmos.
SP é usado para definir tamanho de fontes.



Métricas Mobile

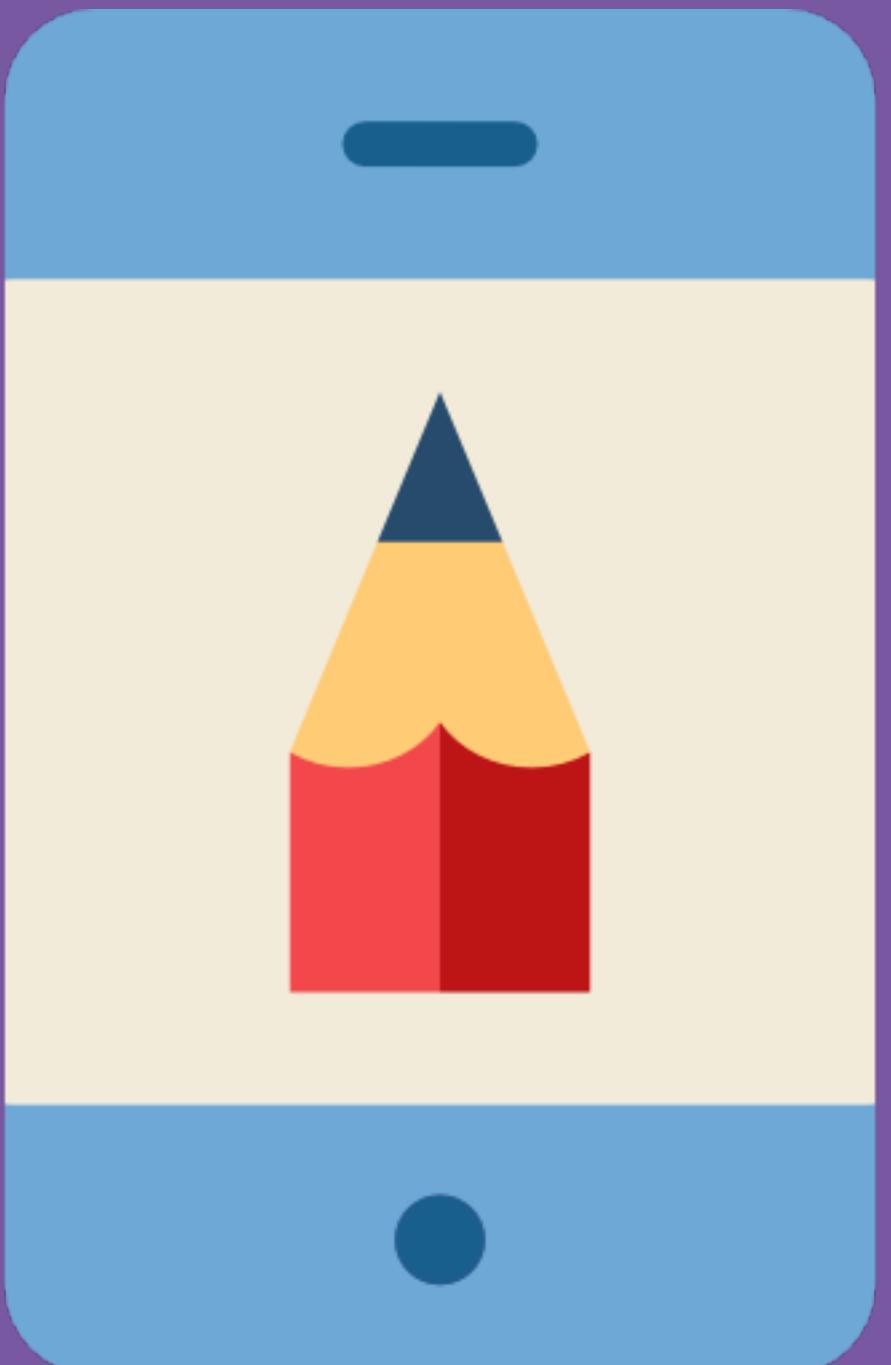
| APPLE | | | | |
|----------------------|---------------------------|-----------|--------|-------------|
| FORMATO | TAMANHO DA TELA | PHOTOSHOP | SKETCH | SALVAR COMO |
| IPHONE 6 PLUS | 1242x2208 - 5.5' - 401ppi | 100% | 3X | @3x~iphone |
| IPHONE 6 PLUS | 1125x2001 - 5.5' - 401ppi | 100% | 3X | @3x~iphone |
| IPHONE 6, 6s | 750x1334 - 4.7' - 326ppi | 66.66% | 2X | @2x~iphone |
| IPHONE SE, 5, 5s, 5c | 640x1136 - 4' - 326ppi | 66.66% | 2X | @2x~iphone |
| IPHONE 4, 4S | 640x960 - 3.5' - 326ppi | 66.66% | 2X | @2x~iphone |
| IPHONE 3Gs, 3 | 320x480 -3.5' - 163 ppi | 33.33% | 1X | ~iphone |
| IPAD MINI e 2aG | 2048x1536 | 100% | 2X | @2x~ipad |
| IPAD | 1024zx768 | 50% | 1X | ~ipad |



Métricas Mobile

| ANDROID | | | | |
|--------------|-------------------|-----------|--------|------------------------|
| FORMATO | TAMANHO DA TELA | PHOTOSHOP | SKETCH | SALVAR NA PASTA |
| XXXHDPI | 1440x2560 | 100% | 4x | drawable-xxxhdpi |
| XXHDPI | 1080x1920 | 75% | 3x | drawable-xxhdpi |
| XHDPI | 720x1280 | 50% | 2x | drawable-xhdpi |
| HDPI | 540x960 | 37.5% | 1.5x | drawable-hdpi |
| MDPI | 540x960 | 25% | 1x | drawable-mdpi |
| TVDPPI | 800x480 / 960x540 | 55.5% | 2.22x | drawable-tvdpi |
| SW800DP-mdpi | 1280x800 | 55.5% | 2.22x | drawable-sw-800DP-mdpi |
| SW600DP-mdpi | 1024x600 | 41.6% | 1.664x | drawable-sw600DP-mdpi |
| SW480DP-mdpi | 854x480 | 33.3 | 1.32x | drawable-sw480DP-mdpi |



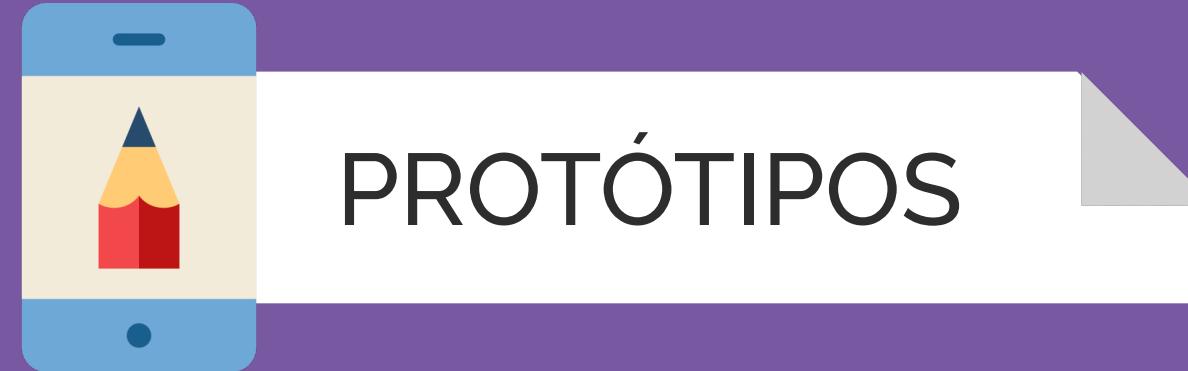


PROTOTIPAR

Invision
Principle

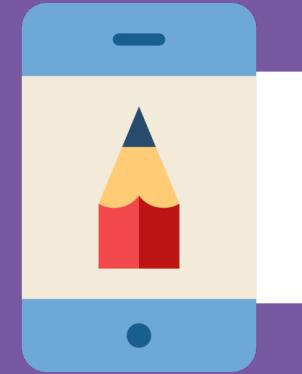
After Effects (se der tempo)

[https://www.smashingmagazine.com/
2015/06/fitting-after-effects-into-a-ux-
workflow/](https://www.smashingmagazine.com/2015/06/fitting-after-effects-into-a-ux-workflow/)



The screenshots show the Cooper website's design, featuring a clean layout with a blue header and footer. The 'OUR PEOPLE' section displays a grid of team member profiles with their names, titles, and a small bio. The detailed profile view shows a card for Sue Cooper with sections for interests, activities, and events.

COOPER
https://
www.cooper.com/
prototyping-tools



PROTÓTIPOS

Fonte: www.cooper.com/prototyping-tools



InVision



Principle



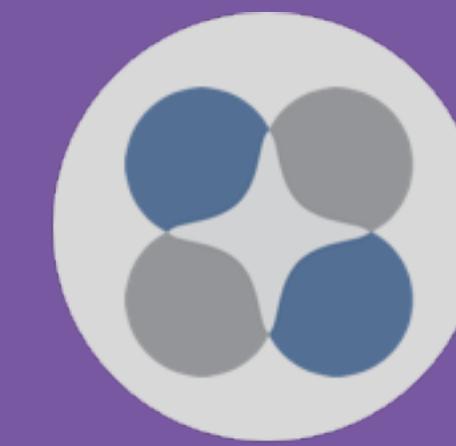
Atomic.io



Fluid



Indigo Studio



ProtoShare



Webflow



Flinto



Marvel



Axure



Form



JustInMind



Solidify



Framer



Proto.io



Briefs



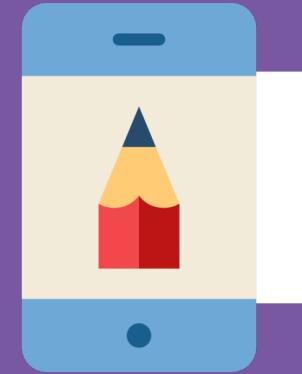
HotGloo



Origami



UXPin



PROTÓTIPOS

Fonte: www.cooper.com/prototyping-tools



InVision



Principle



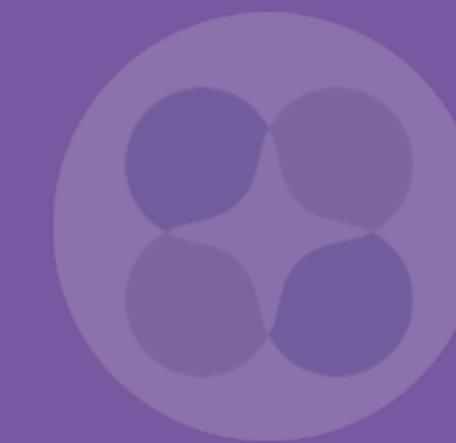
Atomic.io



Fluid



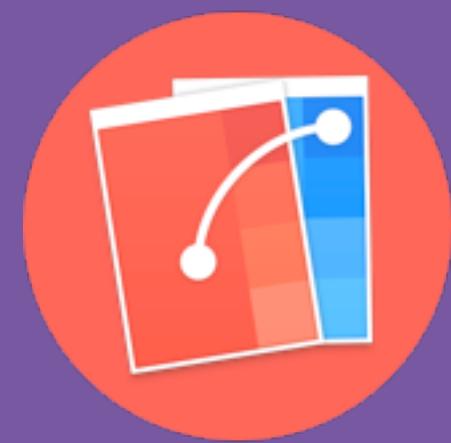
InVision



ProtoShare



Webflow



Flinto



Marvel



Axure



Form



JustInMind



Solidify



Framer



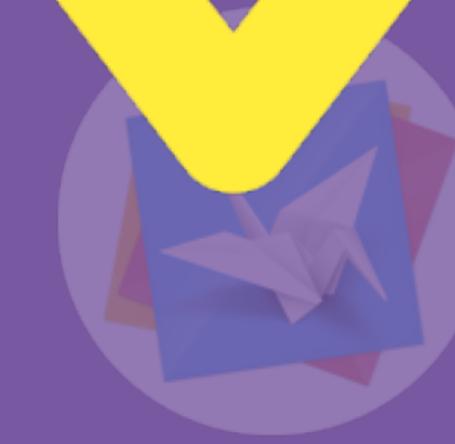
Proto.io



Briefs



HotGloo

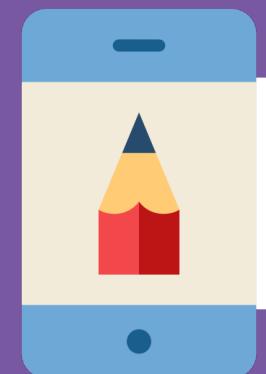


Origami



UXPin





PROTÓTIPOS

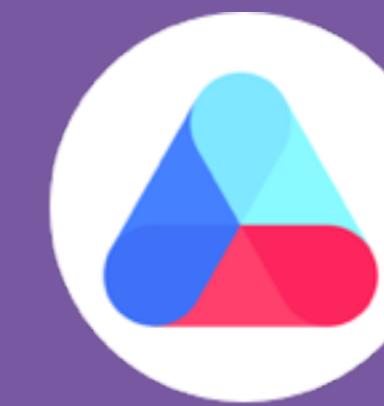
Fonte: www.cooper.com/prototyping-tools



InVision



Principle



Atomic.io



Flinto



Framer

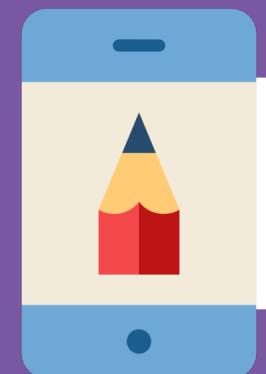


Marvel



Proto.io

| SPEED | 5-10 mins | 15 mins | 10-30 mins | 5-10 mins | >80 mins | 5-10 mins | >80 mins |
|------------------|-----------|---------|------------|-----------|----------|-----------|----------|
| FIDELITY | Good | High | High | High | High | Good | Average |
| SHARING | High | Good | High | Good | Average | High | High |
| USER TESTING | Good | Good | High | Good | Average | Good | Average |
| SUPPORT | Good | Good | Good | Good | High | Good | Good |
| MOBILE & TOUCH | High | High | Good | High | High | High | High |
| DYNAMIC ELEMENTS | Average | High | Low | Low | High | Average | Average |



PROTÓTIPOS

Fonte: www.cooper.com/prototyping-tools



InVision



Principle



Atomic.io



Flinto



Framer

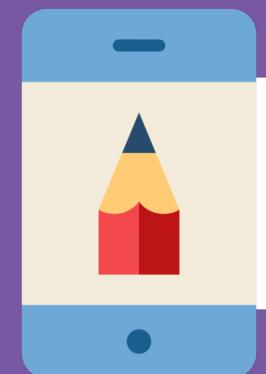


Marvel



Proto.io

| | InVision | Principle | Atomic.io | Flinto | Framer | Marvel | Proto.io |
|------------------|-----------|-----------|------------|-----------|----------|-----------|----------|
| SPEED | 5-10 mins | 15 mins | 10-30 mins | 5-10 mins | >80 mins | 5-10 mins | >80 mins |
| FIDELITY | Good | High | High | High | High | Good | Average |
| SHARING | High | Good | High | Good | Average | High | High |
| USER TESTING | Good | Good | High | Good | Average | Good | Average |
| SUPPORT | Good | Good | Good | Good | High | Good | Good |
| MOBILE & TOUCH | High | High | Good | High | High | High | High |
| DYNAMIC ELEMENTS | Average | High | Low | Low | High | Average | Average |



PROTÓTIPOS

Fonte: www.cooper.com/prototyping-tools



InVision



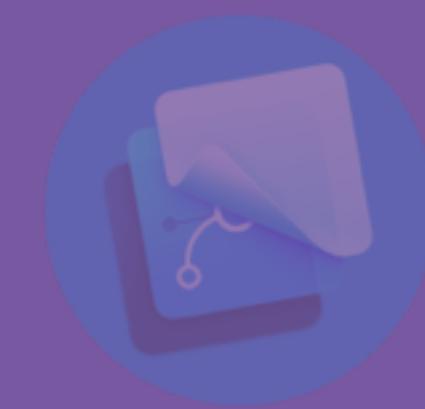
Principle



Atomic.io



Flinto



Framer

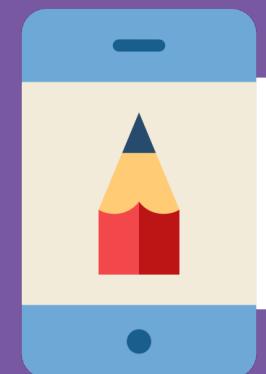


Marvel



Proto.io

| | | | | | | | |
|------------------|-----------|---------|------------|-----------|----------|-----------|----------|
| SPEED | 5-10 mins | 15 mins | 10-30 mins | 5-10 mins | >80 mins | 5-10 mins | >80 mins |
| FIDELITY | Good | High | High | High | High | Good | Average |
| SHARING | High | Good | High | Good | Average | High | High |
| USER TESTING | Good | Good | High | Good | Average | Good | Average |
| SUPPORT | Good | Good | Good | Good | High | Good | Good |
| MOBILE & TOUCH | High | High | Good | High | High | High | High |
| DYNAMIC ELEMENTS | Average | High | Low | Low | High | Average | Average |



PROTÓTIPOS

Fonte: www.cooper.com/prototyping-tools



InVision



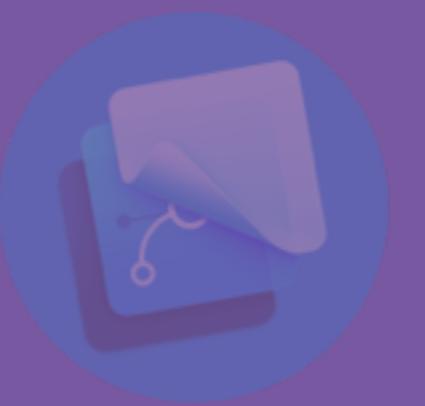
Principle



Atomic.io



Flinto



Framer

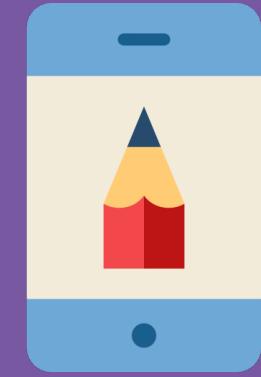


Marvel



Proto.io

| | | | | | | | |
|------------------|-----------|---------|------------|-----------|----------|-----------|----------|
| SPEED | 5-10 mins | 15 mins | 10-30 mins | 5-10 mins | >80 mins | 5-10 mins | >80 mins |
| FIDELITY | Good | High | High | High | High | Good | Average |
| SHARING | High | Good | High | Good | Average | High | High |
| USER TESTING | Good | Good | High | Good | Average | Good | Average |
| SUPPORT | Good | Good | Good | Good | High | Good | Good |
| MOBILE & TOUCH | High | High | Good | High | High | High | High |
| DYNAMIC ELEMENTS | Average | High | Low | Low | High | Average | Average |



PROTÓTIPOS

PROTOTIPAR >



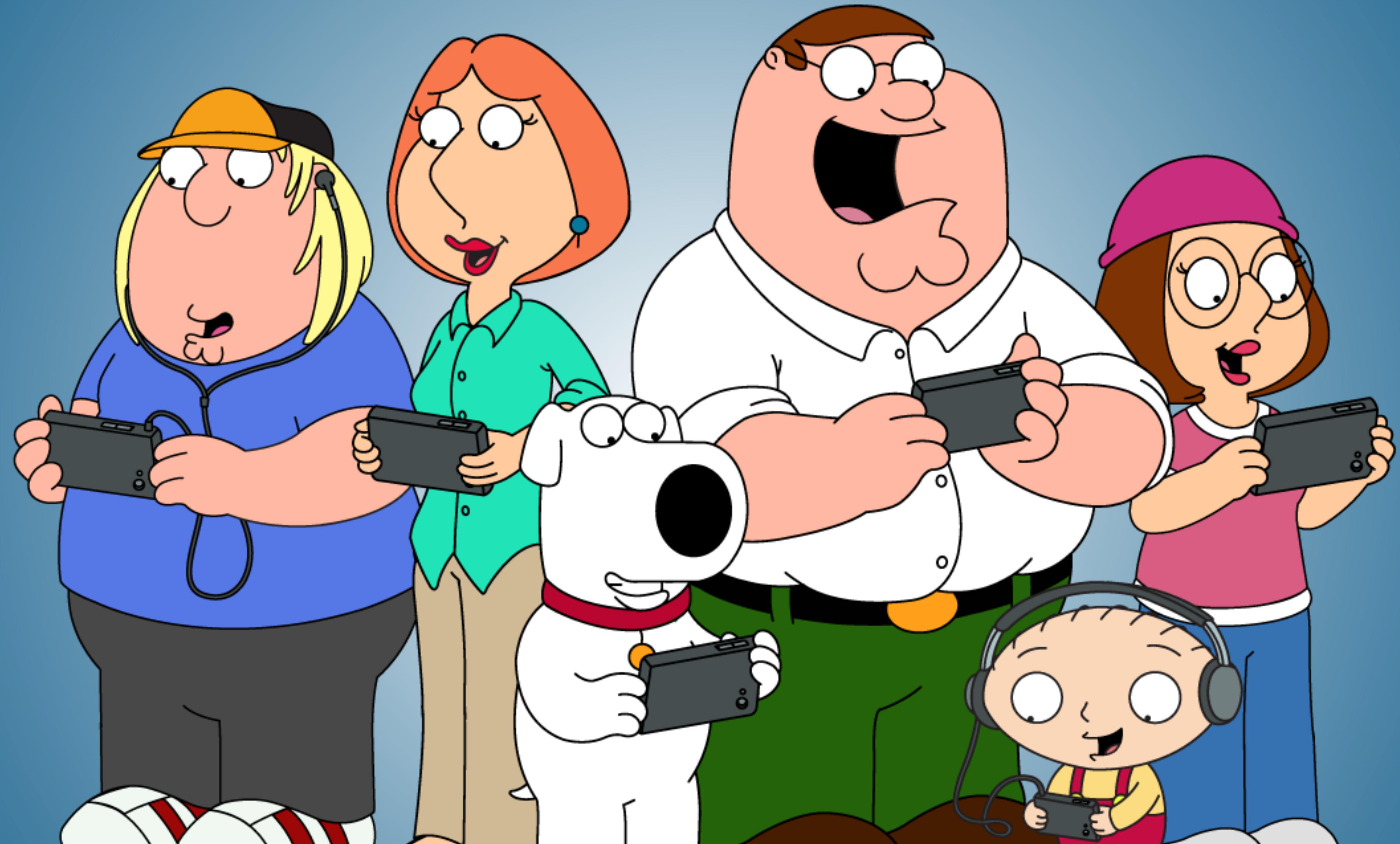
Fluxos

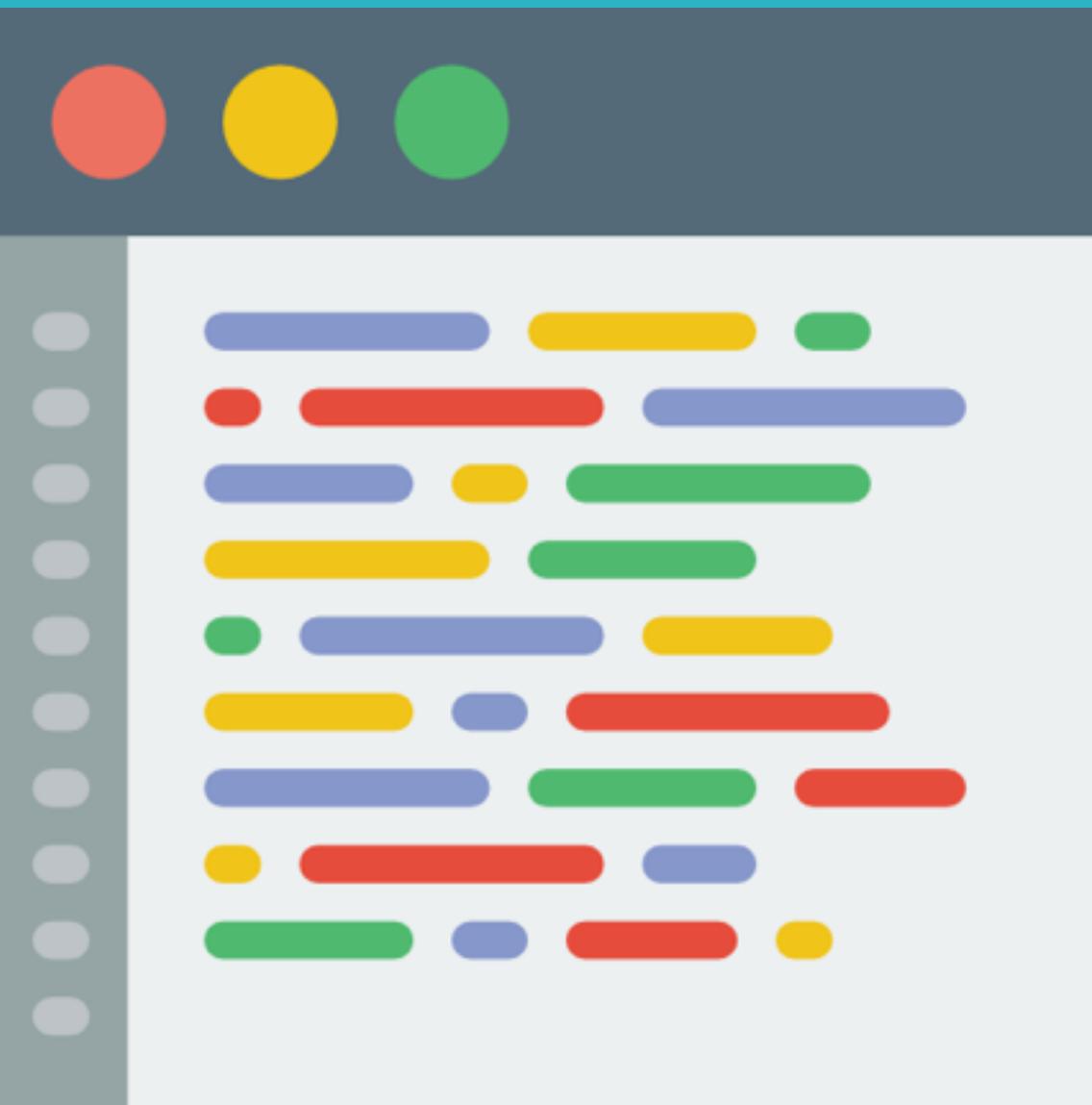
Quando eu quero contar uma estória sobre meu produto



Interações

Quando eu quero uma representação única, profunda e comportamental sobre meu produto





DESENVOLVER

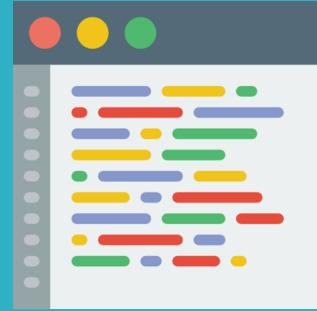
Android Studio
Xcode



DESENVOLVIMENTO



ANDROID
STUDIO



ESTRUTURA

build:

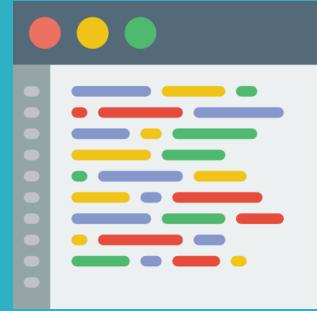
pasta que contém os arquivos compilados depois de executar a aplicação.

libs:

pasta para colocar as bibliotecas de terceiros. No formato de arquivos “”.jar”

src:

pasta que contém as classes Java e arquivos de resources



DESENVOLVIMENTO



ESTRUTURA

assets:

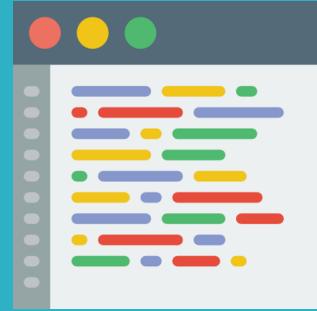
pasta de arquivos opcionais
(Ex: fontes, html, sons)

java:

pasta que contém as classes Java

res:

recursos da aplicação (cada recurso tem referência no arquivo R.java)



ESTRUTURA

drawable:

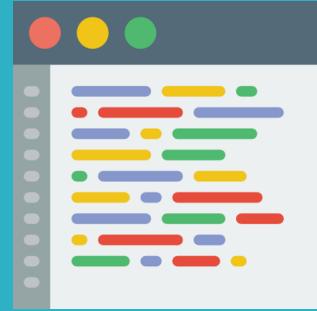
ficam as imagens (m, h, x e xxhdpi - tipos de resolução)

layout:

arquivos XML de layout (construir telas)

menu:

xml para menus na barra de navegação no topo



DESENVOLVIMENTO



ESTRUTURA

values:

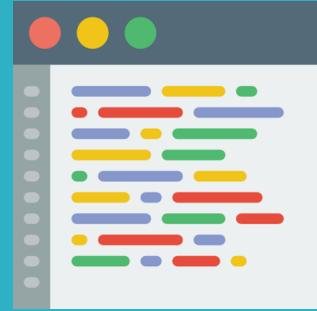
arquivos XML para
internationalização, styles e outras
configurações

anim:

xml para animação de views

color e xml:

xml para cores em hexadecimal
xml comuns



DRAWABLE

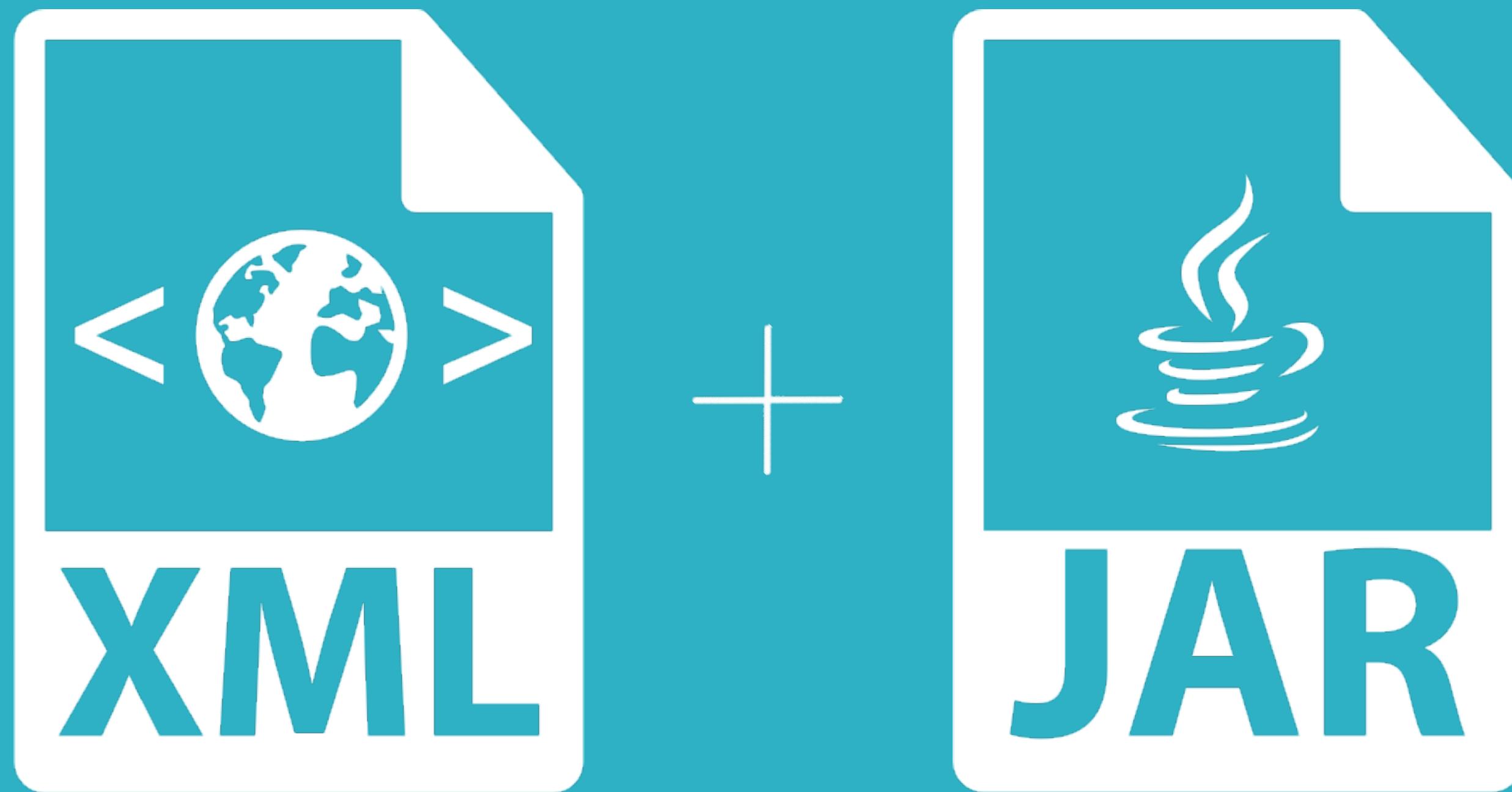
- drawable-mdpi: 1x
- drawable-hdpi: 1.5x
- drawable-xhdpi: 2x
- drawable-xxhdpi: 3x
- drawable-xxxhdpi: 4x

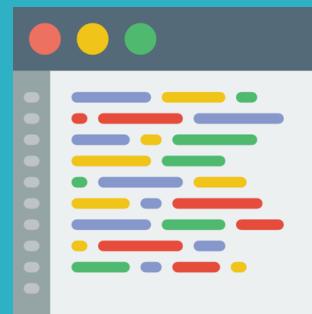


DESENVOLVIMENTO



ESTRUTURA





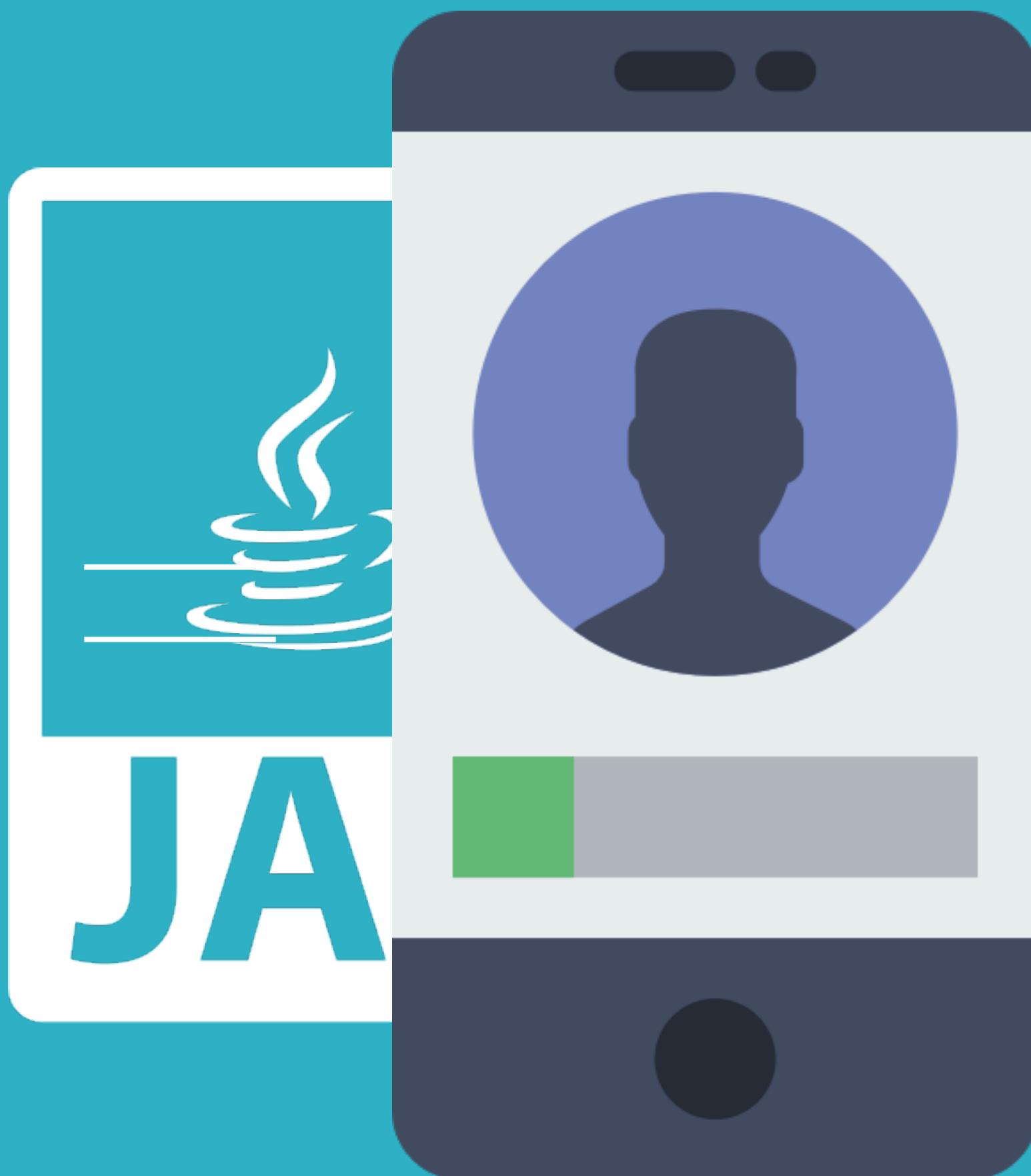
DESENVOLVIMENTO



ESTRUTURA



+

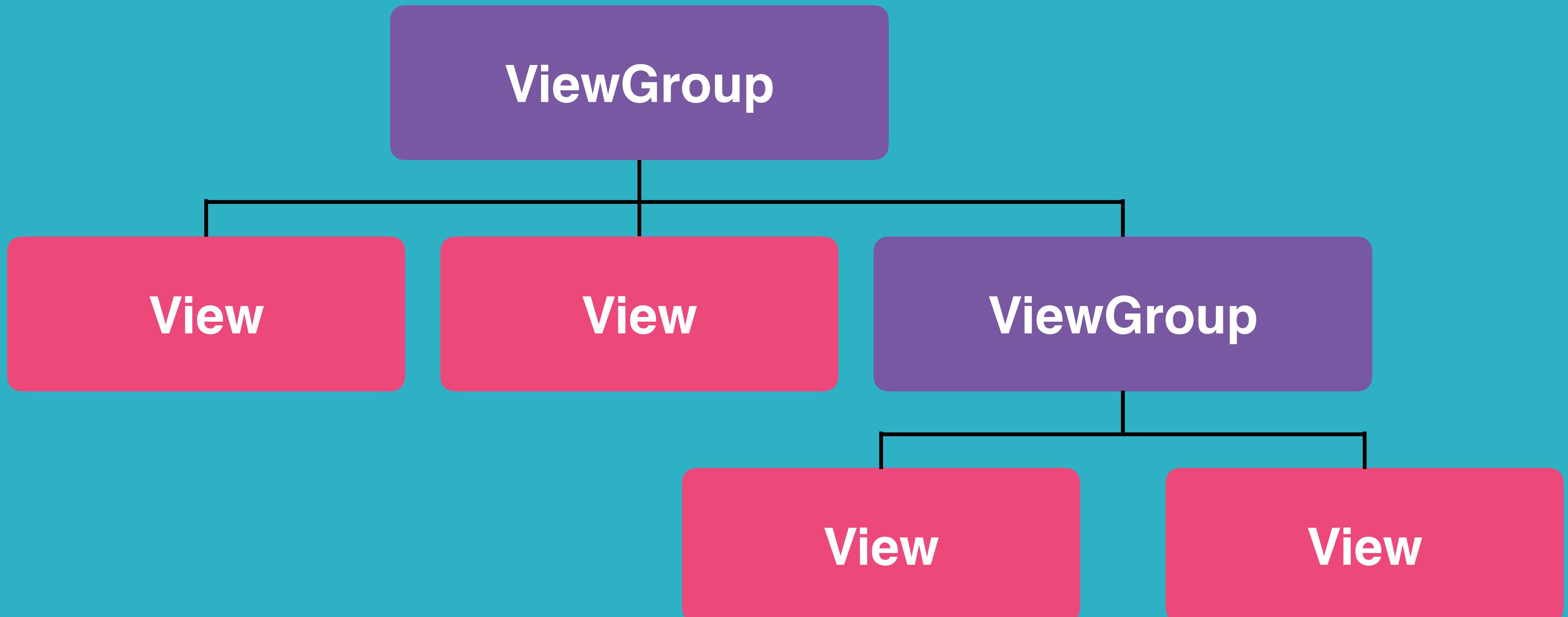




DESENVOLVIMENTO



GERENCIADORES DE LAYOUTS





GERENCIADORES DE LAYOUTS

RelativeLayout

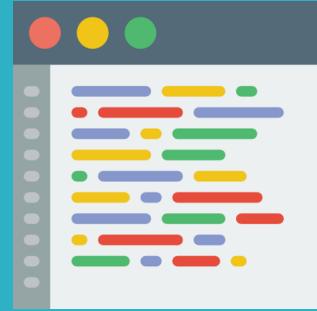
TextView

Button

LinearLayout

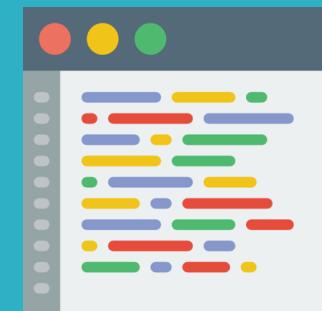
ImageView

CheckBox



TIPOS DE GERENCIADORES DE LAYOUT

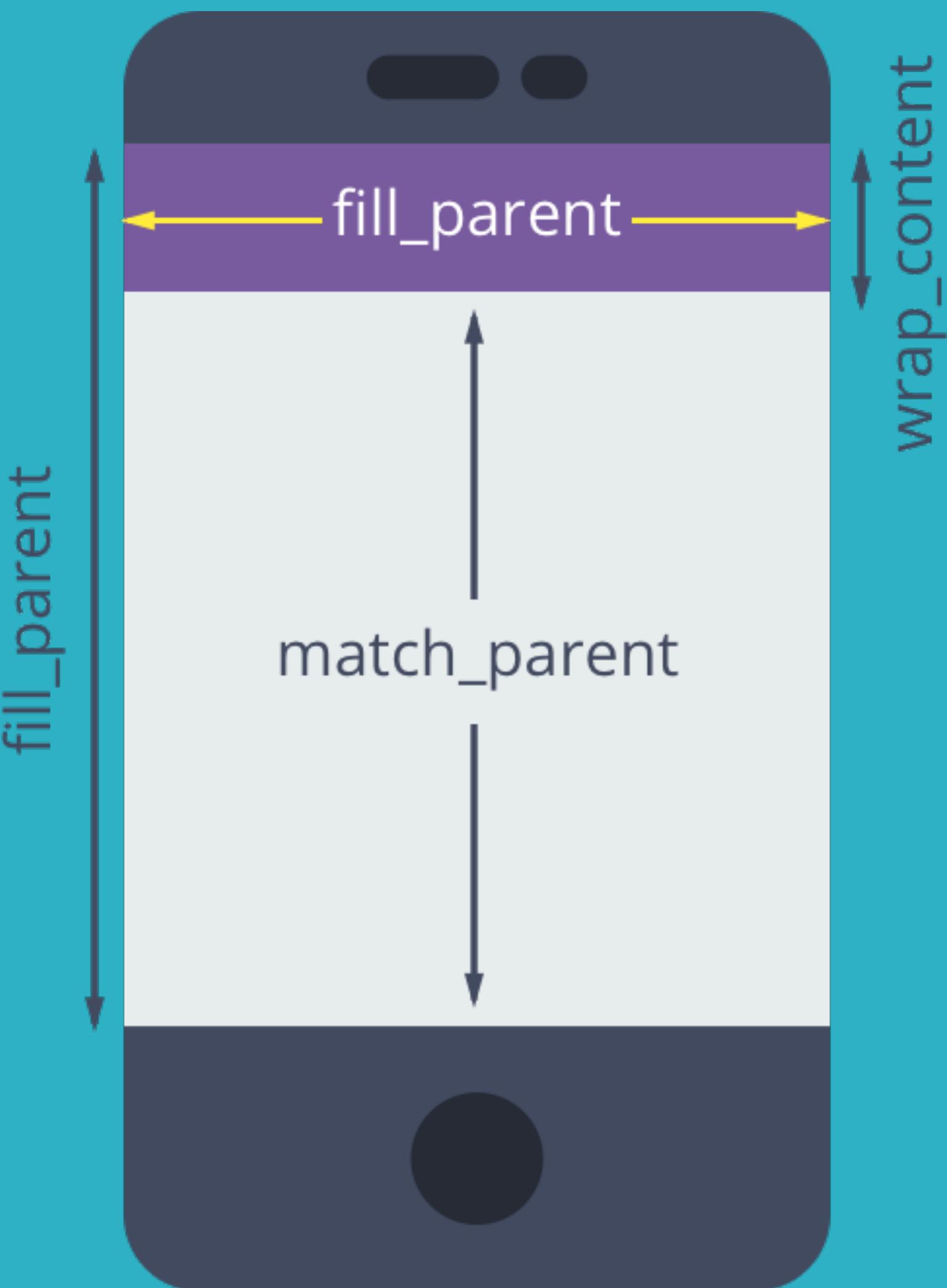
- LinearLayout
- RelativeLayout
- FrameLayout
- TableLayout
- ScrollView (pai de uma viewGroup)

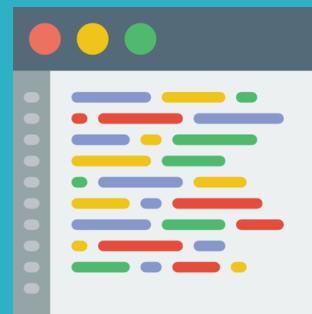


LinearLayout

Alinha todas os filhos em uma única direção - vertical ou horizontal, dependendo de como você define o atributo de orientação.

Todas os filhos são empilhados um após o outro, então uma lista vertical terá apenas um filho por linha

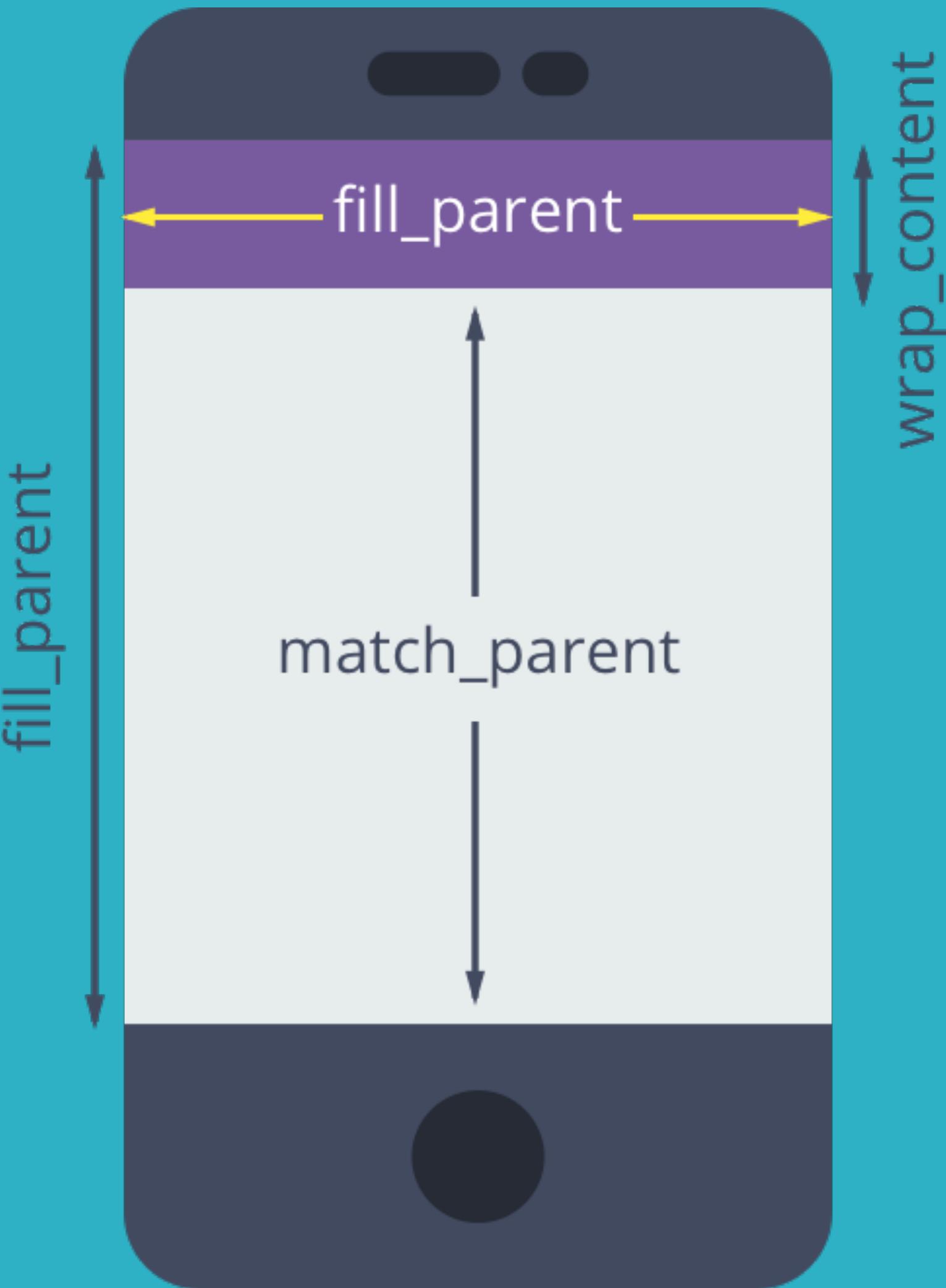


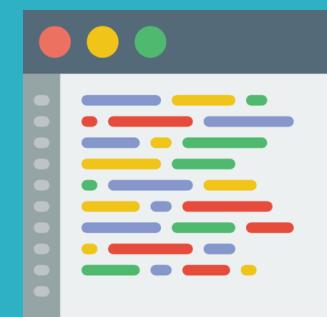


LinearLayout

Respeita os atributos de:

- Margens entre Views;
- Gravidade (direita, centro, esquerda ou alinhamento) de cada view filha;
- Peso para cada view filha.





DESENVOLVIMENTO

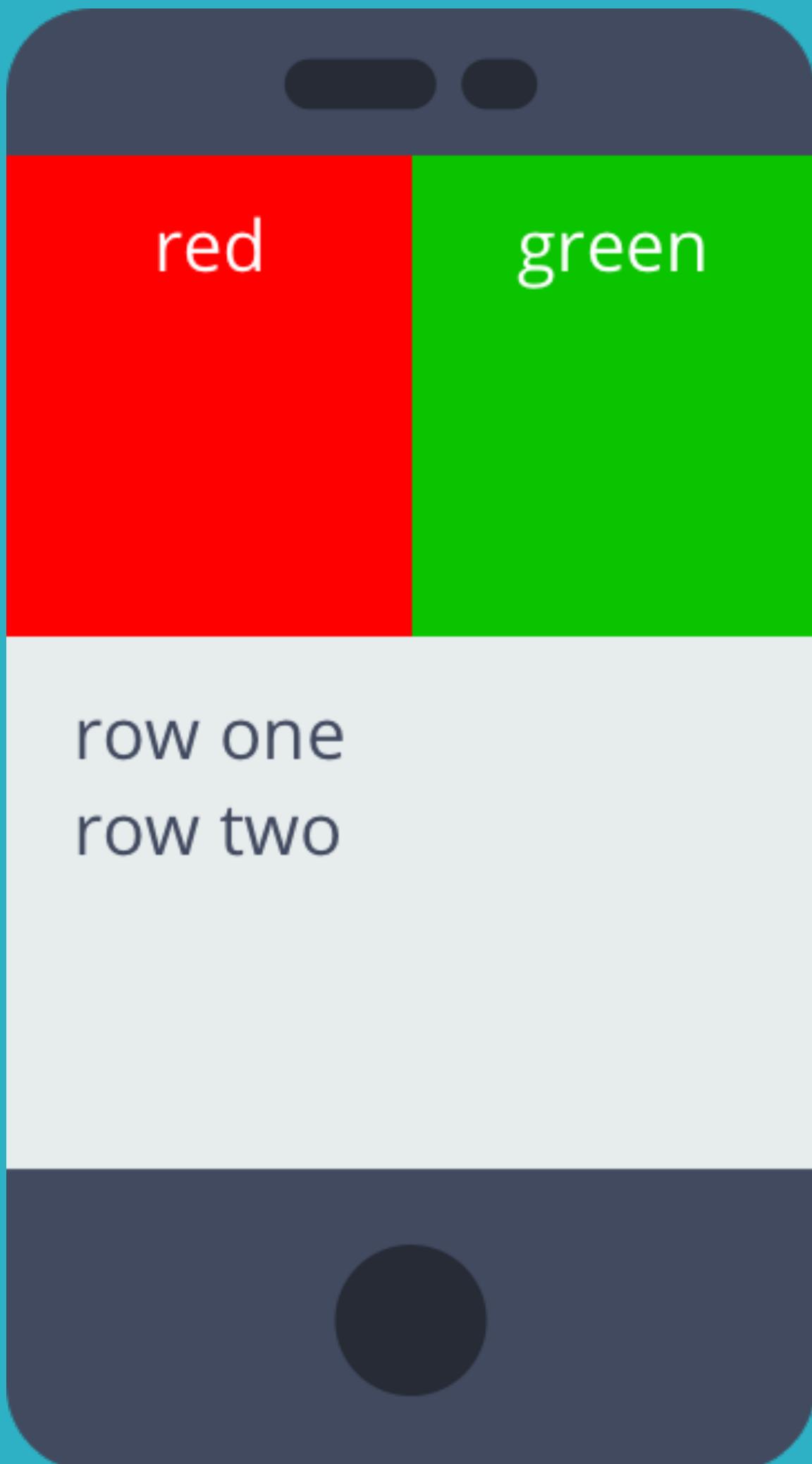
```
<LinearLayout android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent">

    <LinearLayout android:orientation="horizontal"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_weight="1">
        <TextView android:text="red" />
        <TextView android:text="green" />
    </LinearLayout>

    <LinearLayout android:orientation="vertical"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_weight="1">
        <TextView android:text="row one" />
        <TextView android:text="row two" />
    </LinearLayout>

</LinearLayout>
```

LinearLayout



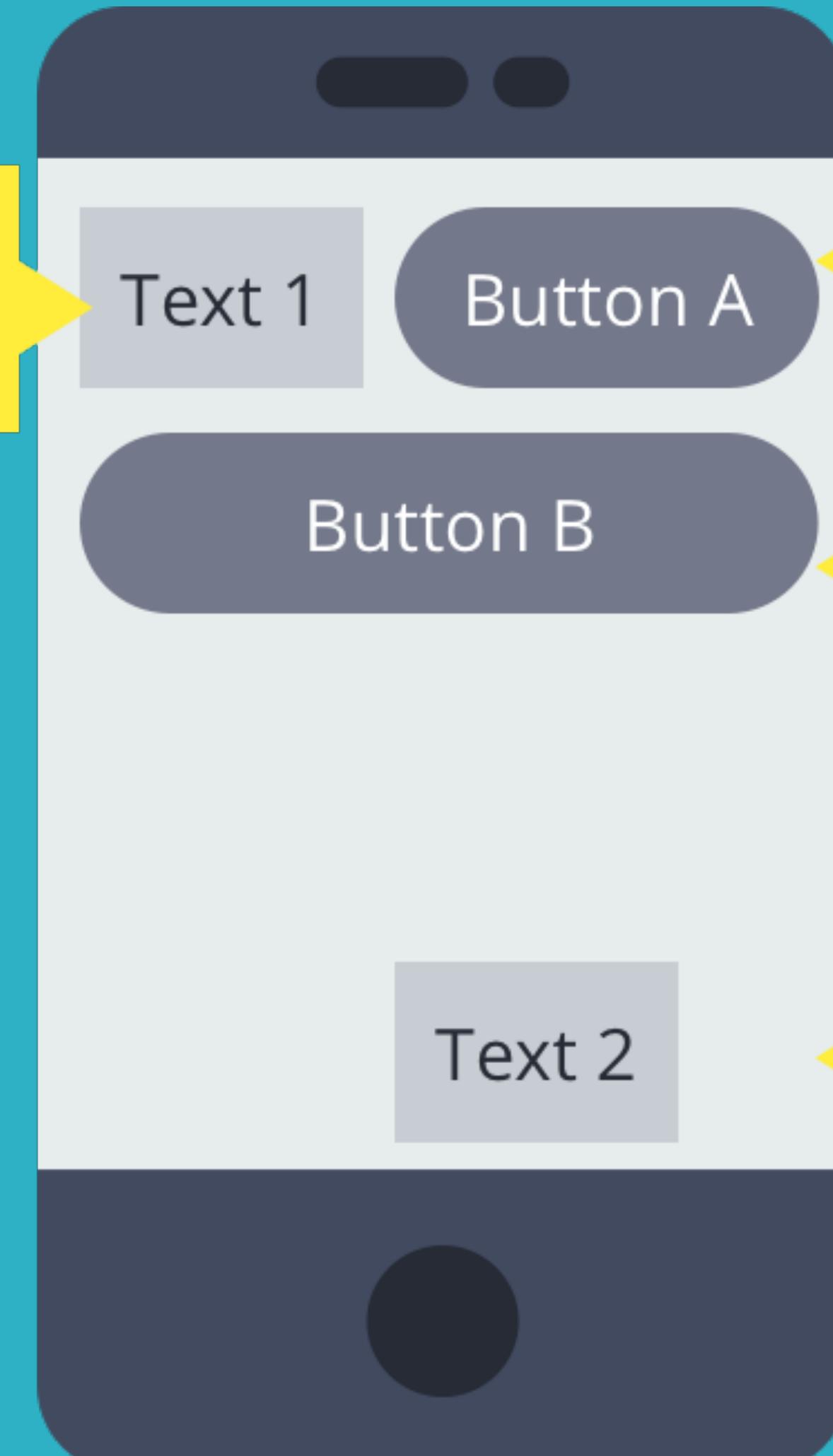


RelativeLayout

Permite Views filhas especificar a sua posição relativa à View principal (Pai) ou para uma outra (especificado pelo ID)

Você pode alinhar dois elementos por borda direita, ou fazer um abaixo de outro, centrado na tela, centrado à esquerda, e assim por diante...

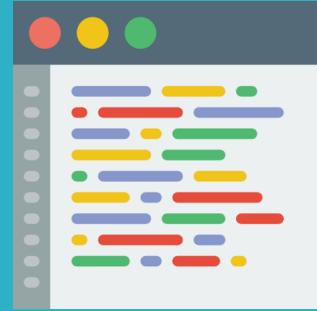
parentTop
parentLeft



toRightOf
Text_1

layout_below
Button A

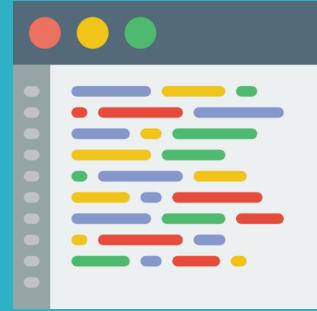
parentBottom
toRightOf
Text 1



Drawable Resources

Diferente das pastas drawable-(resolução), a pasta com nome somente “drawable” tem os seguintes propósitos:

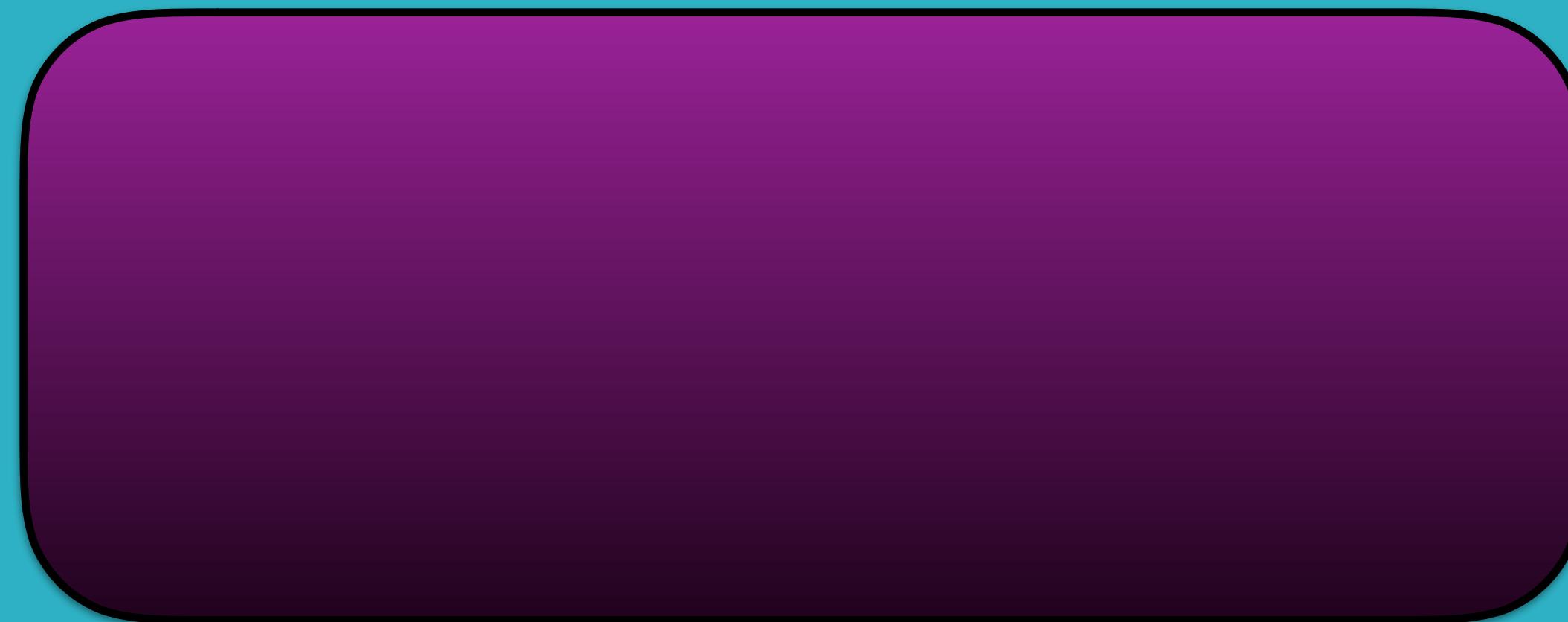
- Ser responsável pelos XML's de Shapes (XML de desenho);
- E pelos XML's de State List Drawables (XML de estados)



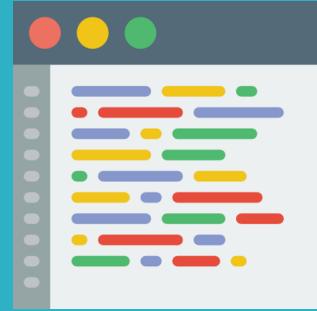
Shapes

Desenha uma View através de um XML
Têm atributos como gradient, solid, corners e stroke

```
<shape android:shape="rectangle">
    <gradient
        android:startColor="@color/light_pink"
        android:endColor="@color/dark_pink"
        android:angle="270" />
    <corners
        android:radius="15dp" />
    <stroke
        android:width="2dp"
        android:color="@color/black" />
</shape>
```



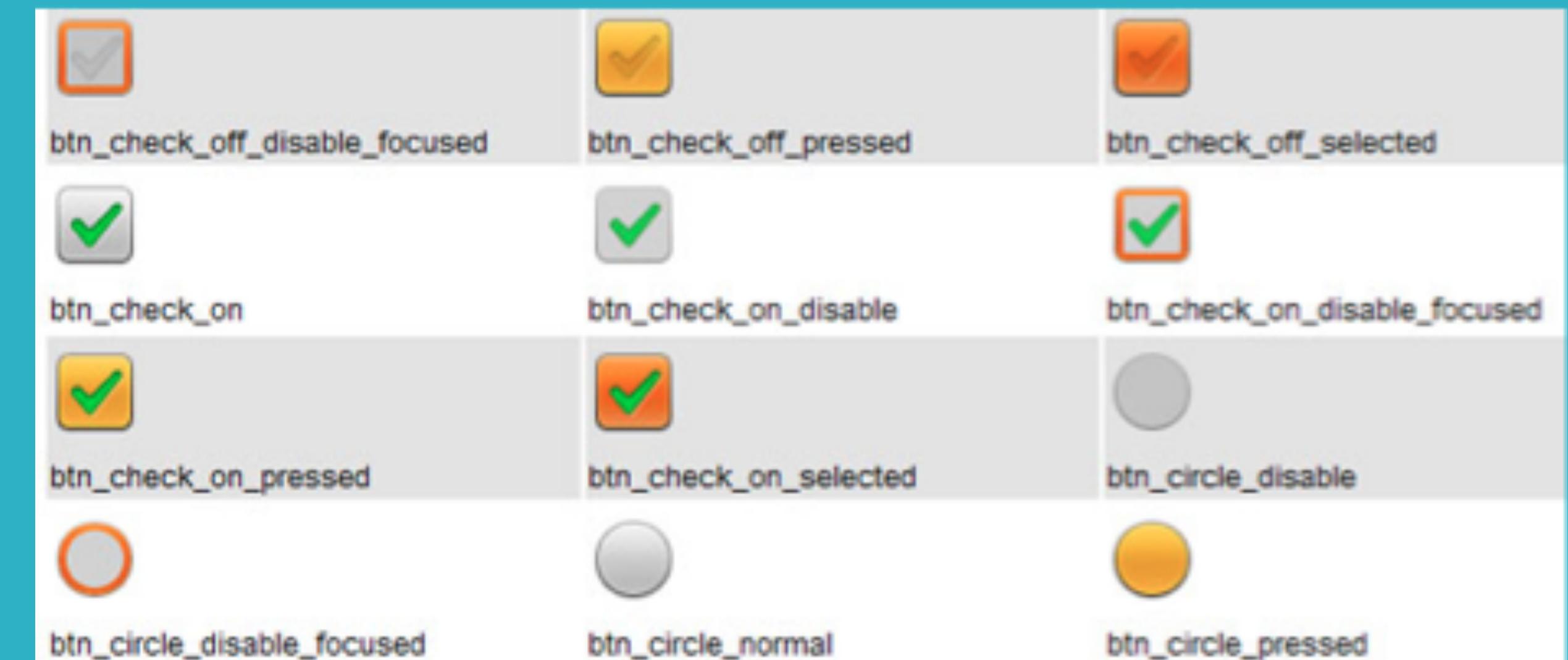
res/drawable/shape.xml



State List Drawables

Define diferentes Drawables para estados como "focused", "pressed", "selected" or "enabled"

```
<selector>
<item android:state_focused="true"
      android:drawable="@drawable/focused" />
<item android:state_pressed="true"
      android:drawable="@drawable/pressed" />
<item android:drawable="@drawable/normal" />
</selector>
```



res/drawable/selector.xml



NinePatch

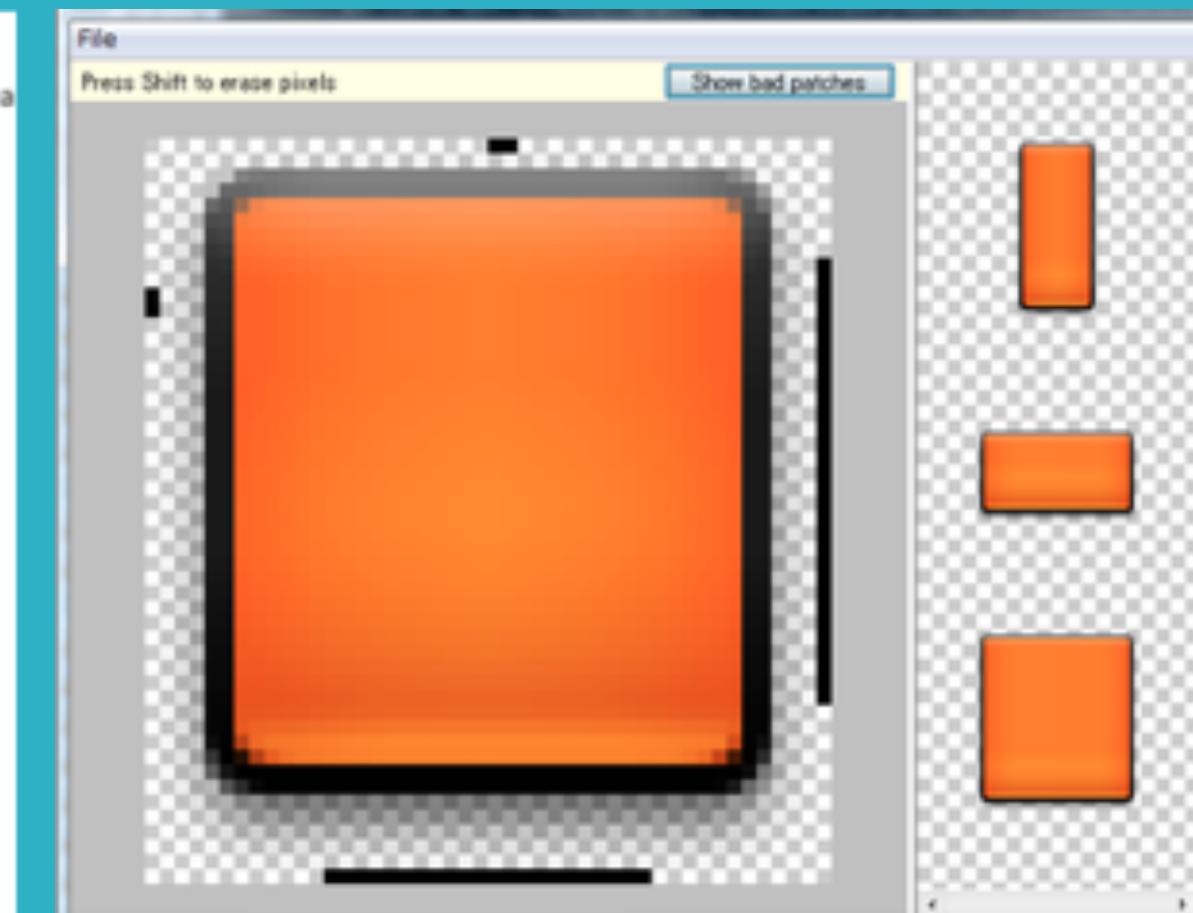
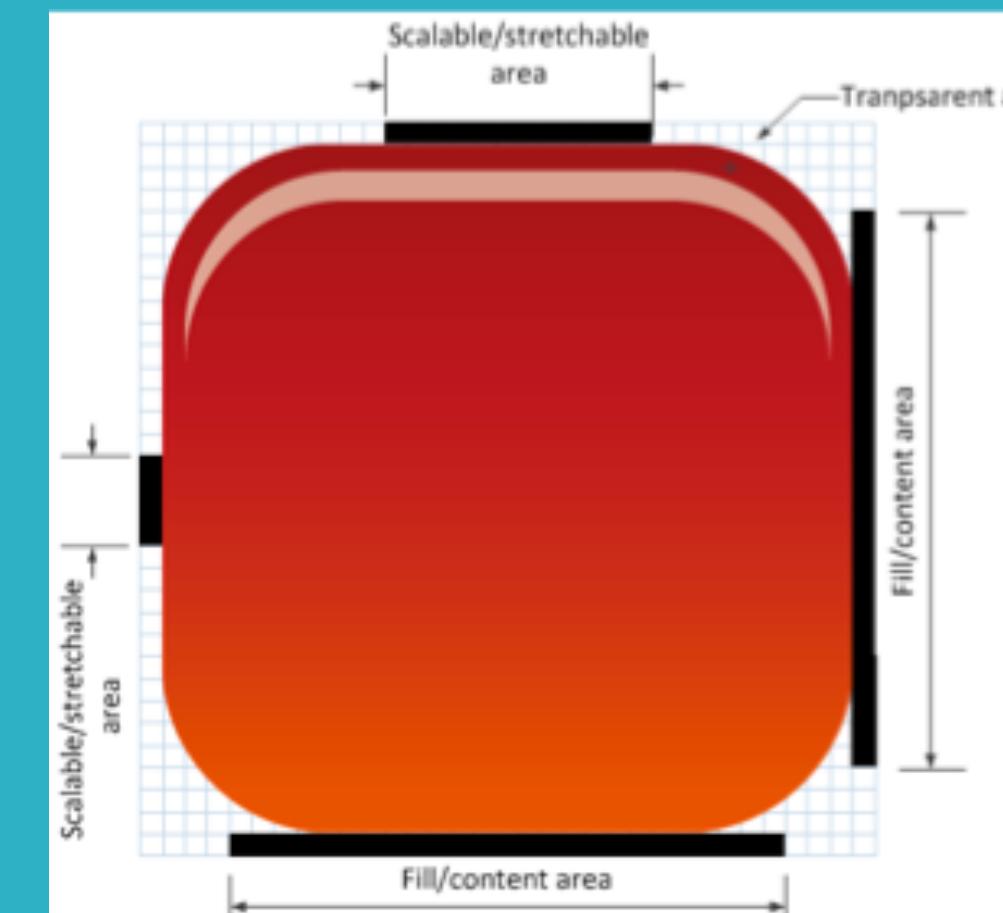
Define imagens PNG esticáveis que magicamente se adaptam

Define também áreas de conteúdo (opcional)

Basta colocar como background da view

<Button>

```
    android:layout_height="wrap_content"  
    android:layout_width="wrap_content"  
    android:text="@string/button_text"  
    android:background="@drawable/button_background"
```

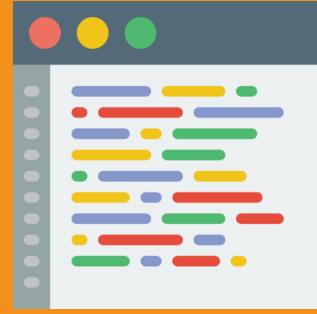
/>



DESENVOLVIMENTO



ios
Xcode



DESENVOLVIMENTO

ESTRUTURA



Assets.xcassets:

É aqui que todas as imagens do seu app devem ficar. Ela já vem com um “asset”, que é o ícone do aplicativo.

LaunchScreen.storyboard:

Tela de abertura do app

Main.storyboard:

Usado para criar o fluxo de telas do app. Por meio deles, é possível criar uma navegação entre telas, sem precisar codificar. Existe uma outra forma de criar esse fluxo, através dos arquivos XIBs.



ViewController.swift:

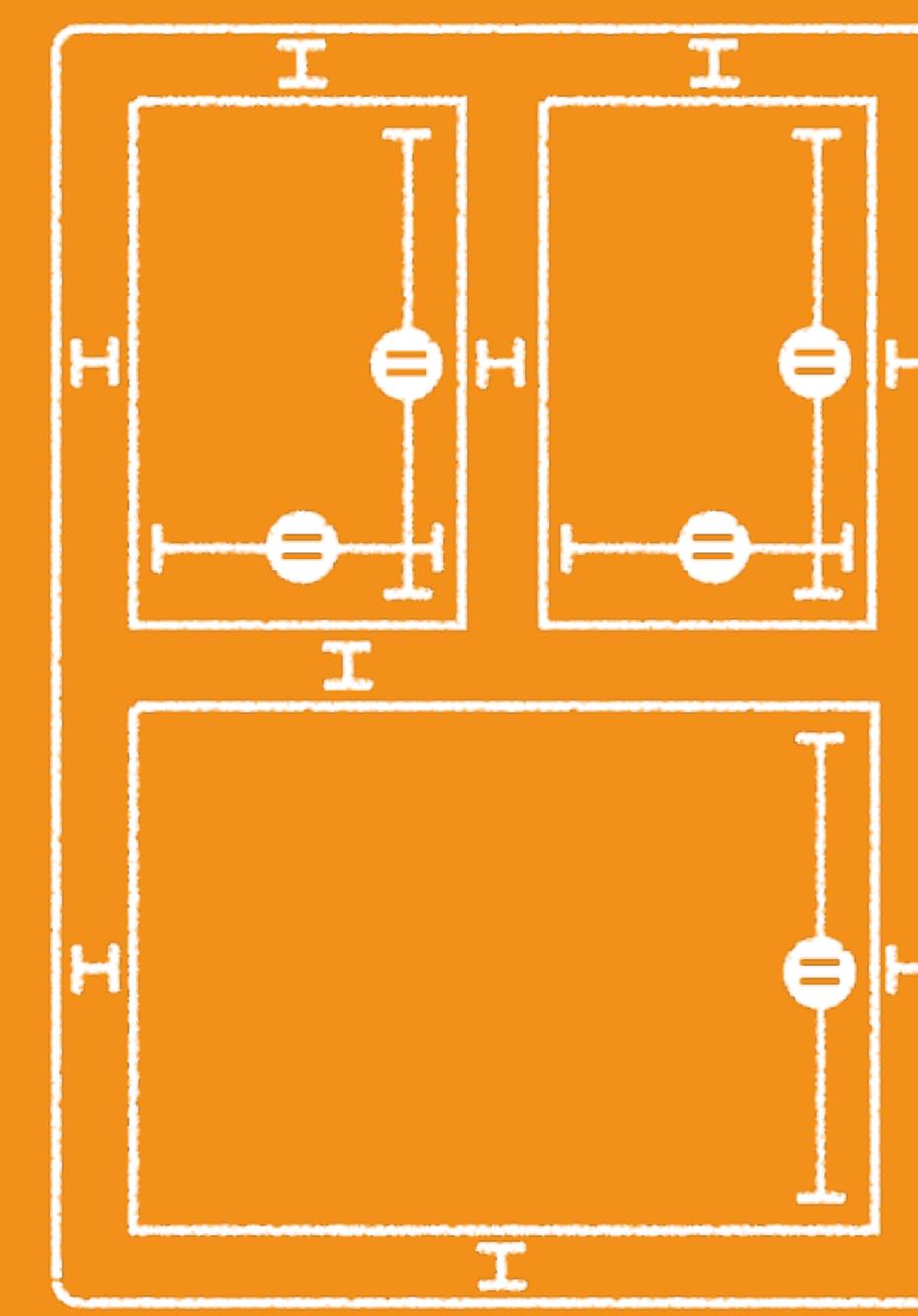
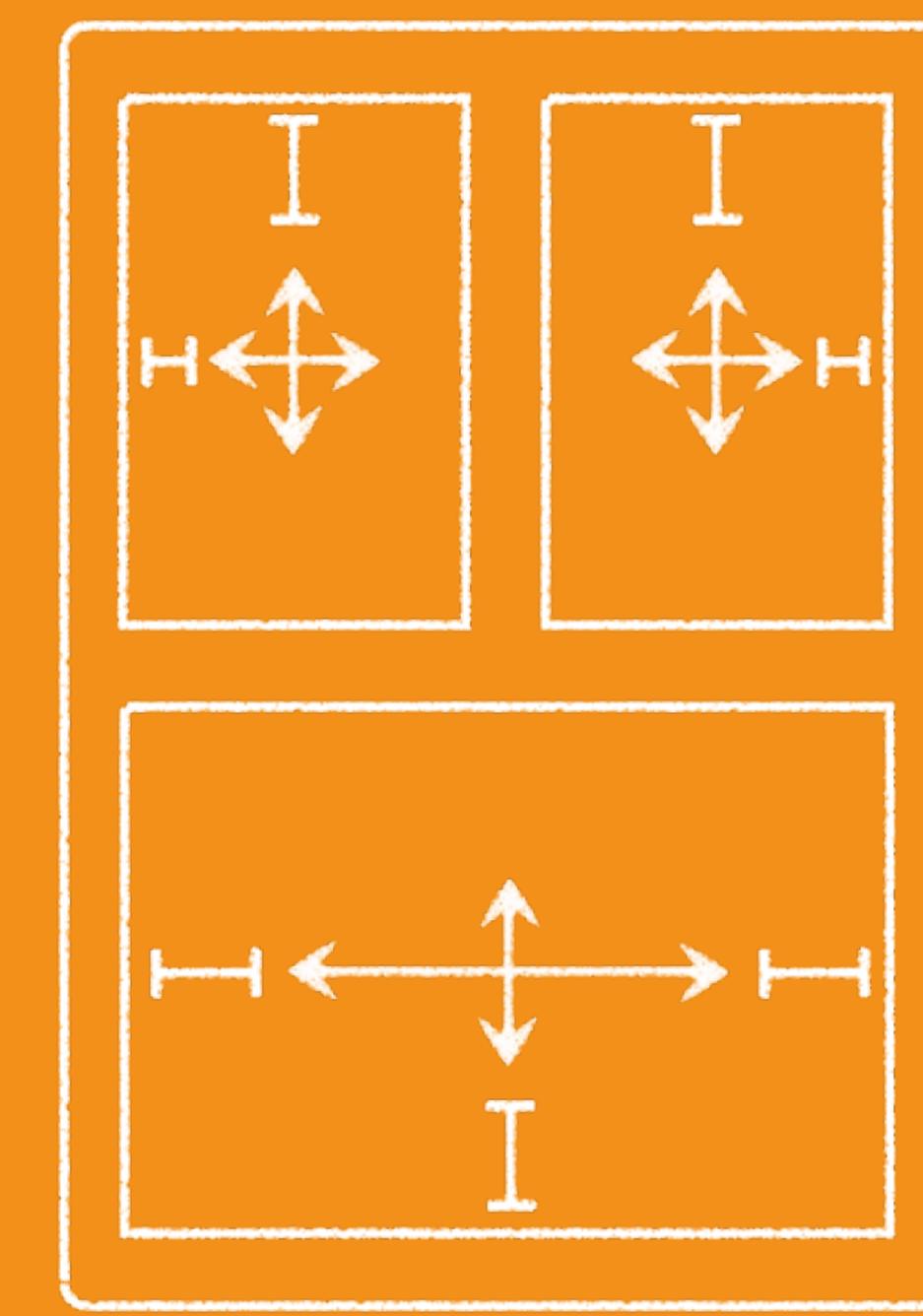
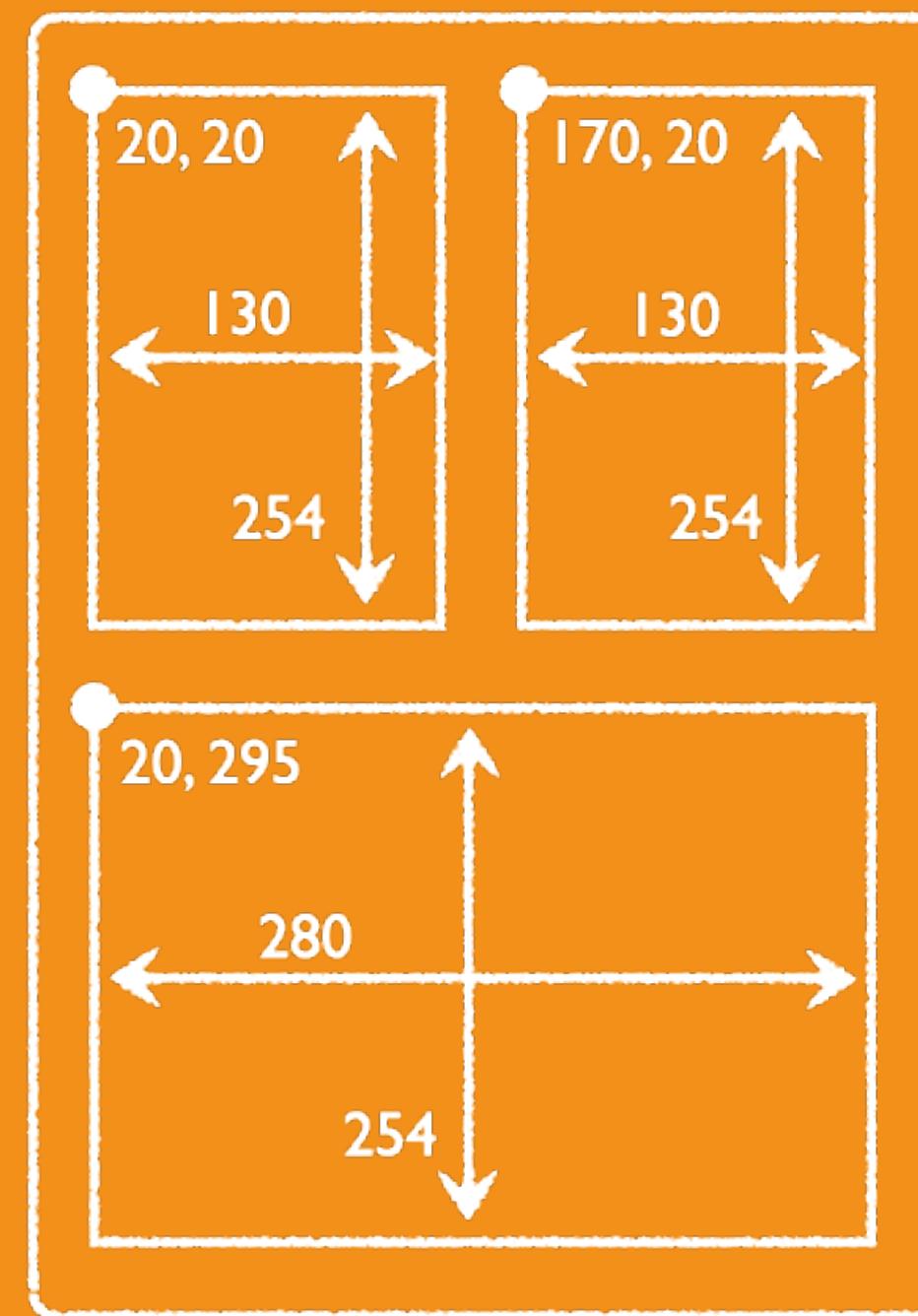
Classe da tela inicial de sua aplicação. Você pode criar outras classes e associá-las para sua tela. Para cada tela, existe uma classe, assim como no Android.

Xibs:

Views customizáveis. Você pode criar elas e associá-las a sua ViewController. Geralmente, equipes multidisciplinares usam esse recurso para o desenvolvimento de seus app.



Constraints e Auto Layout:



PARTE2

BEM-VINDOS!

Plugins Sketch

<https://www.sketchapp.com/extensions/plugins/>

<http://sketchtoolbox.com/>

Sketch resources

<http://www.sketchappsources.com/>

Principle resources

<http://principlerepo.com/>

Gerando imagens pelo photoshop (com nine-patches)

<https://romannurik.github.io/AndroidAssetStudio/nine-patches.html>

Input text Invision

<https://medium.com/minitheory-design/live-prototyping-with-invision-craft-prototype-within-sketch-4b9a1b2e795c#.9ixfrodxs>

Abrindo invision no Android

<https://www.invisionapp.com/tour/android-prototyping>

Marvel ou Invision?

<http://savvyapps.com/blog/flinto-lite-vs-marvel-vs-invision-a-review-of-3-prototyping-tools>



SOBRE
o quê falamos?

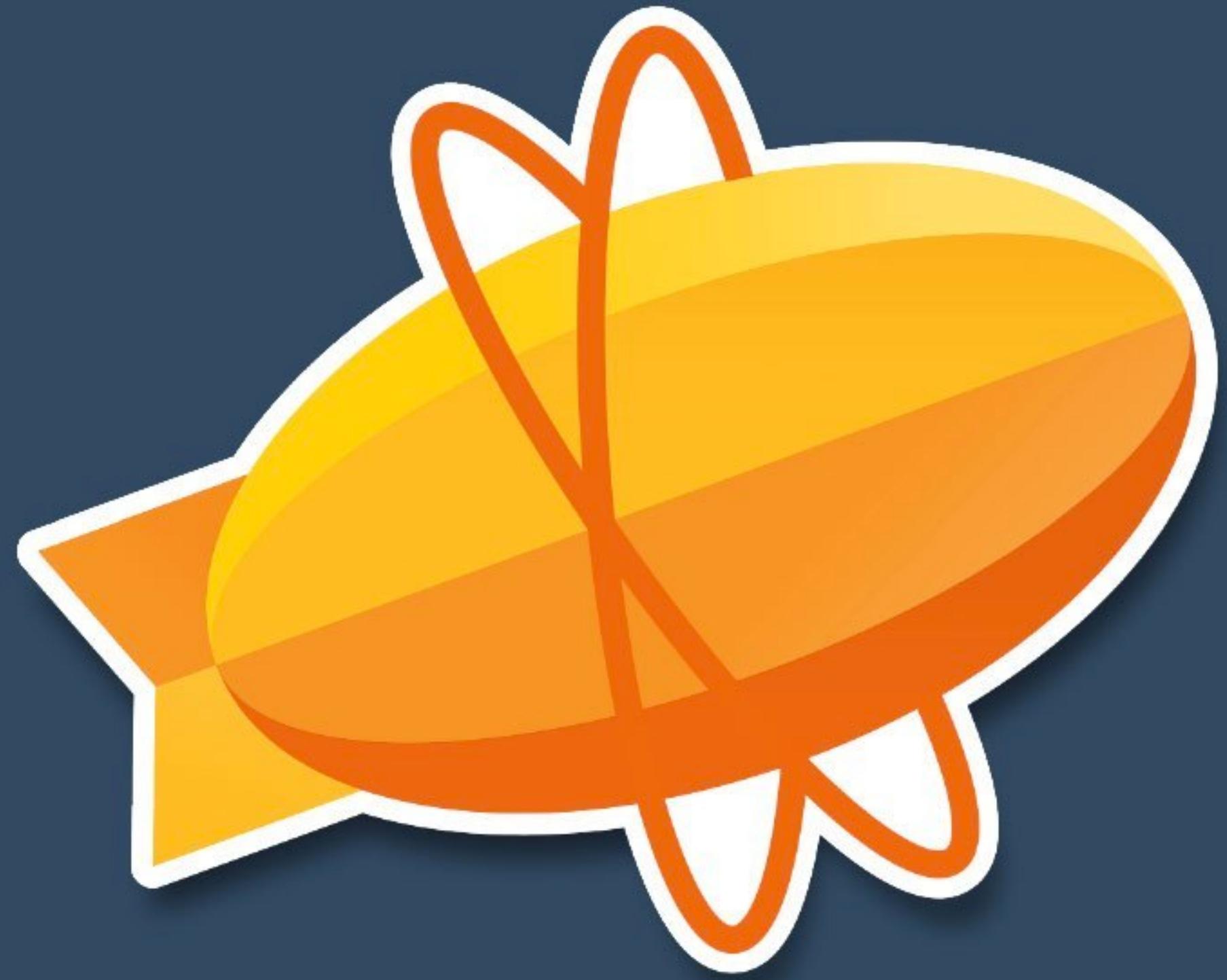


Sketch App





Sketch App



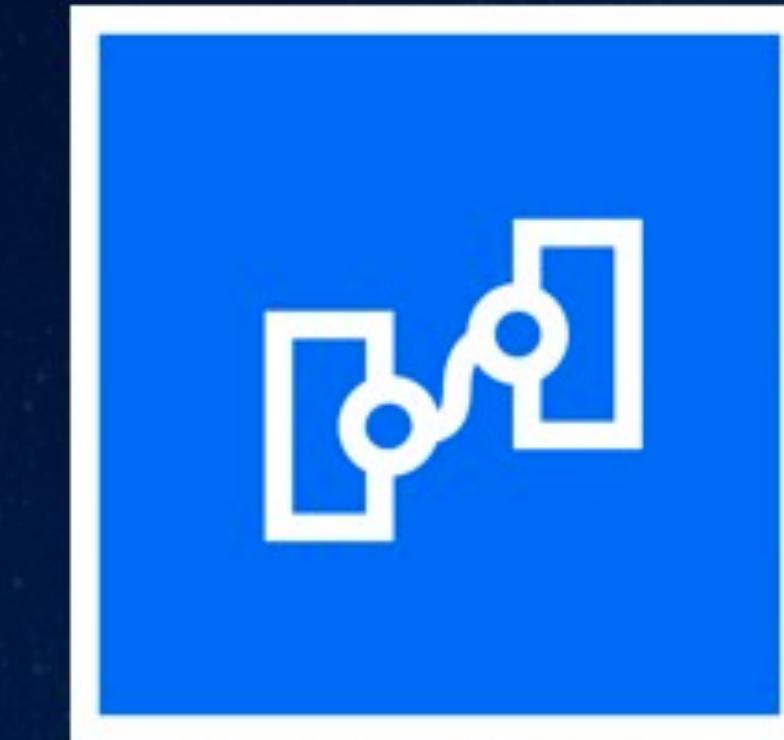
ZEPLIN



Sketch App

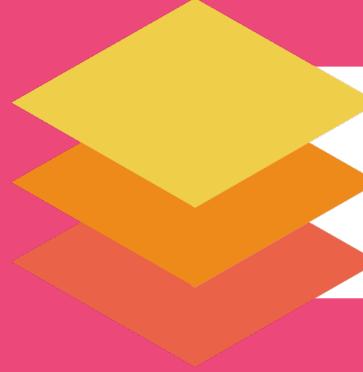


CRAFT



PROTOTYPE





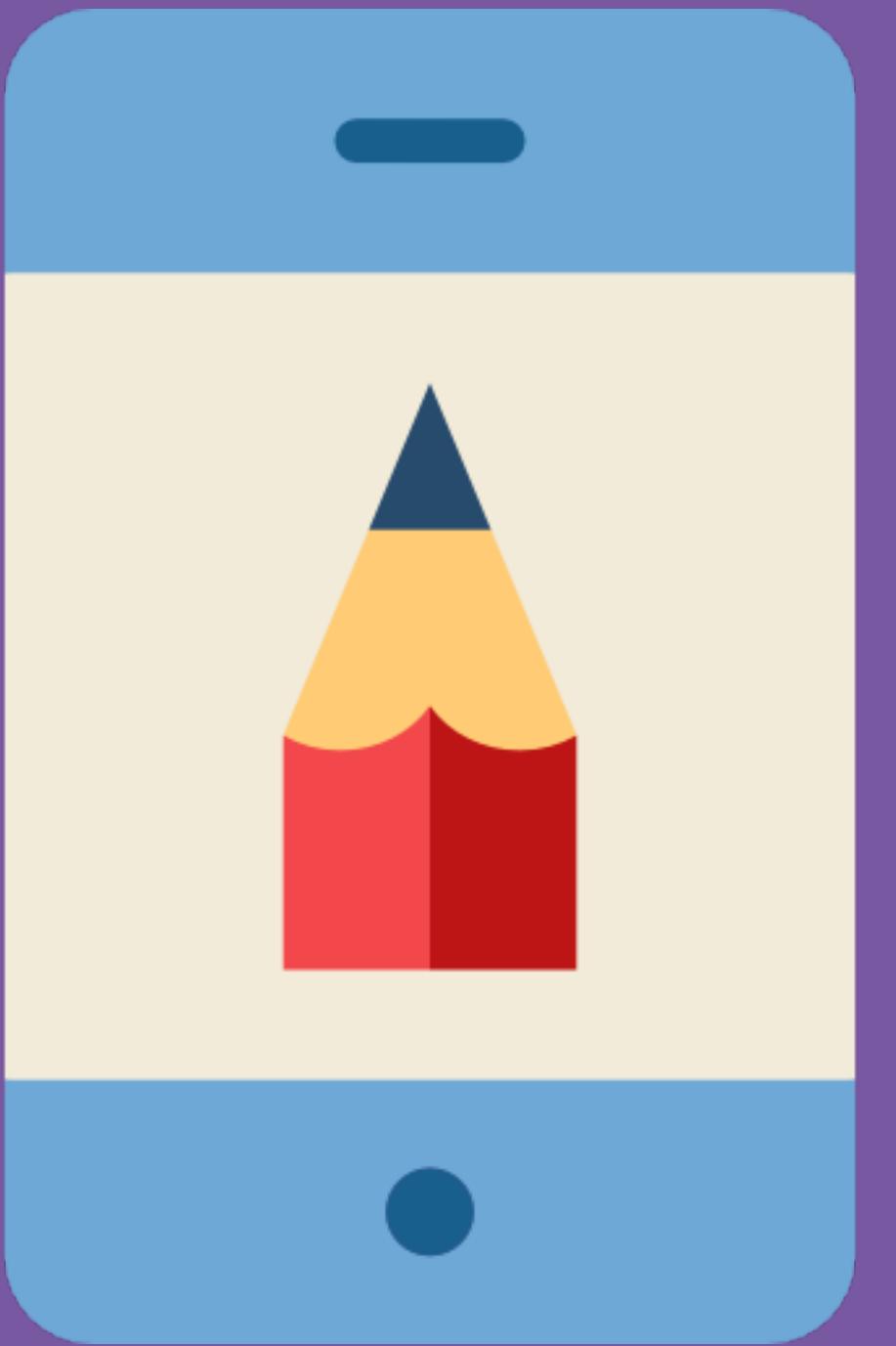
Métricas Mobile



EXPORTAR

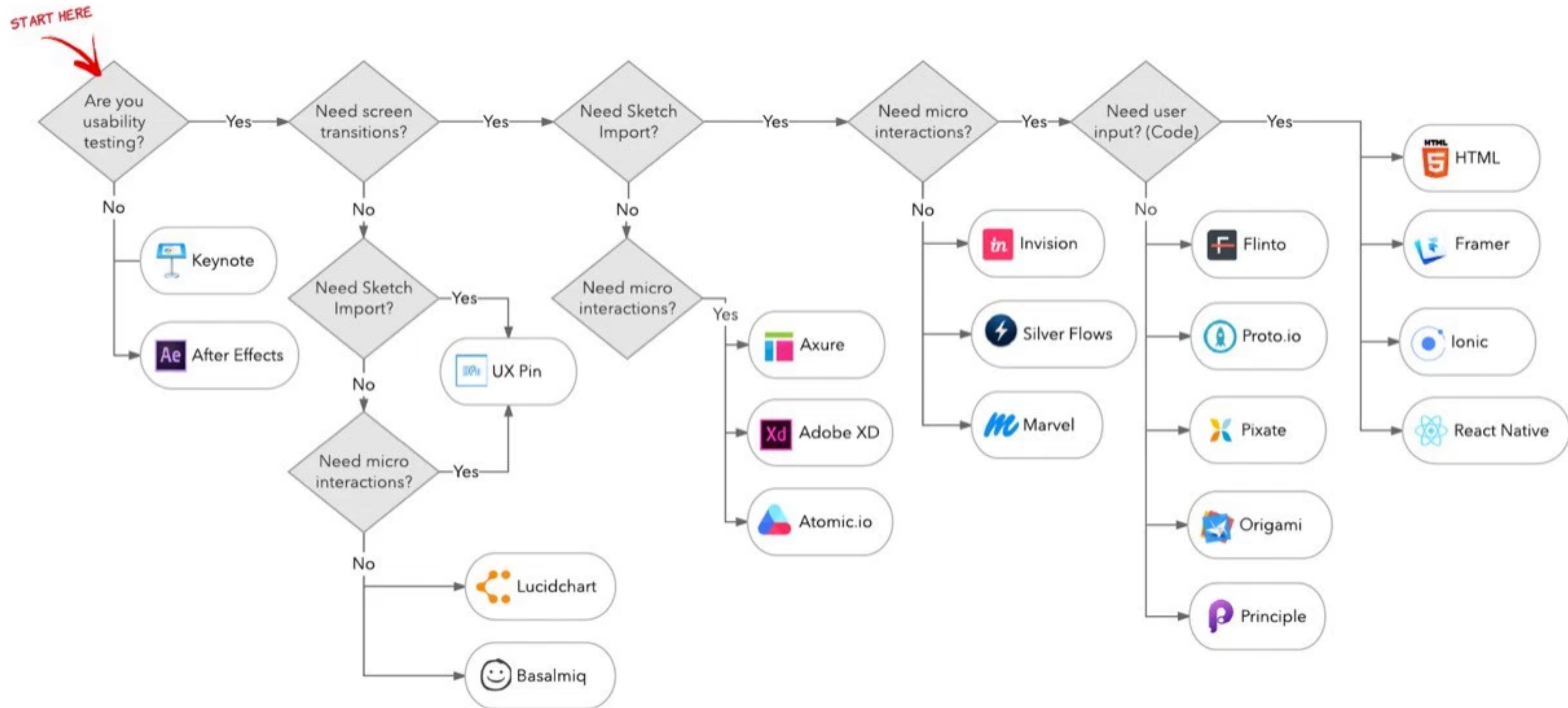
Métricas mobile

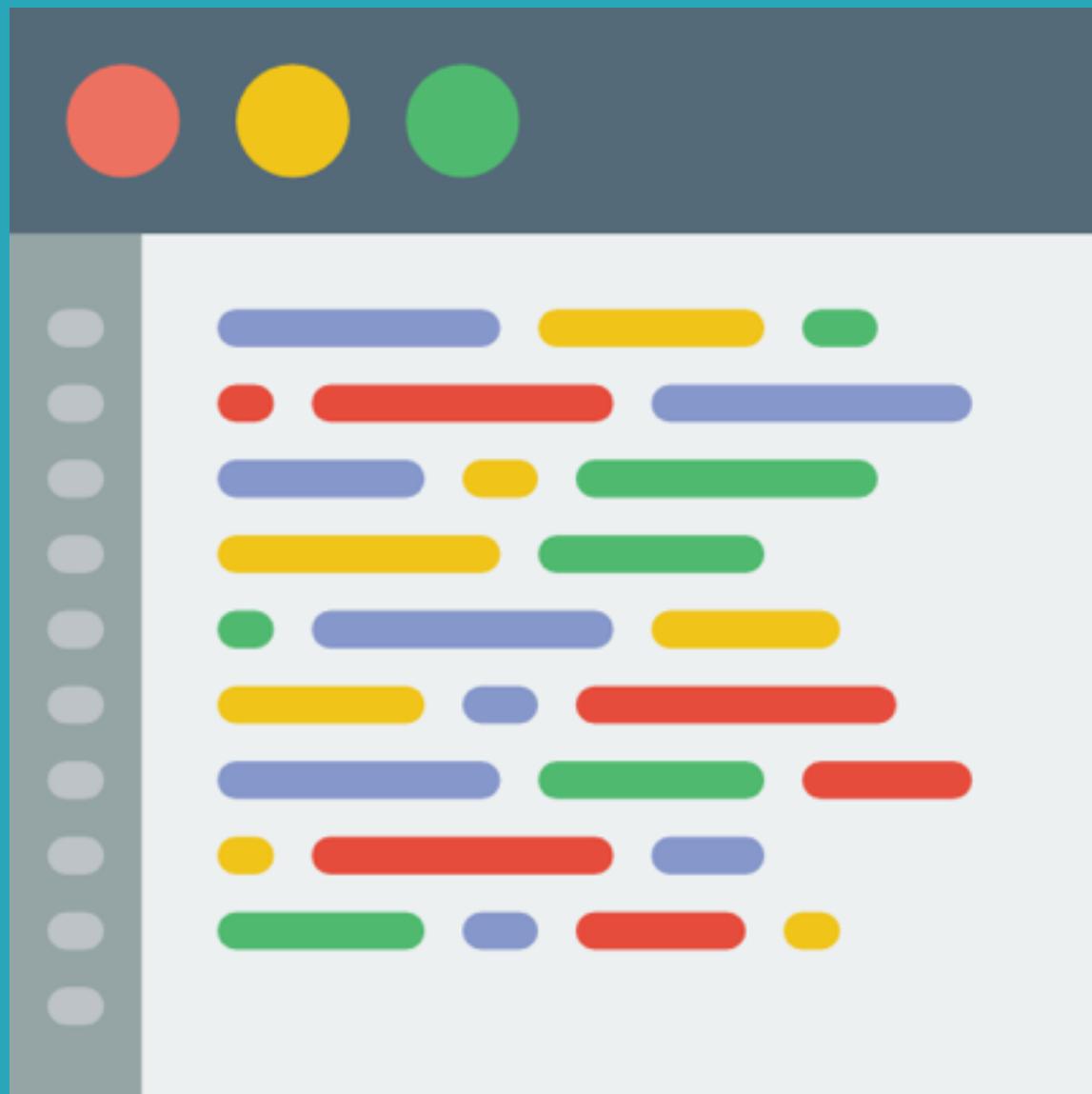
1x, 2x, 3x...



PROTOTIPAR

Invision Principle





AYOUT NATIVO

Xcode
Android

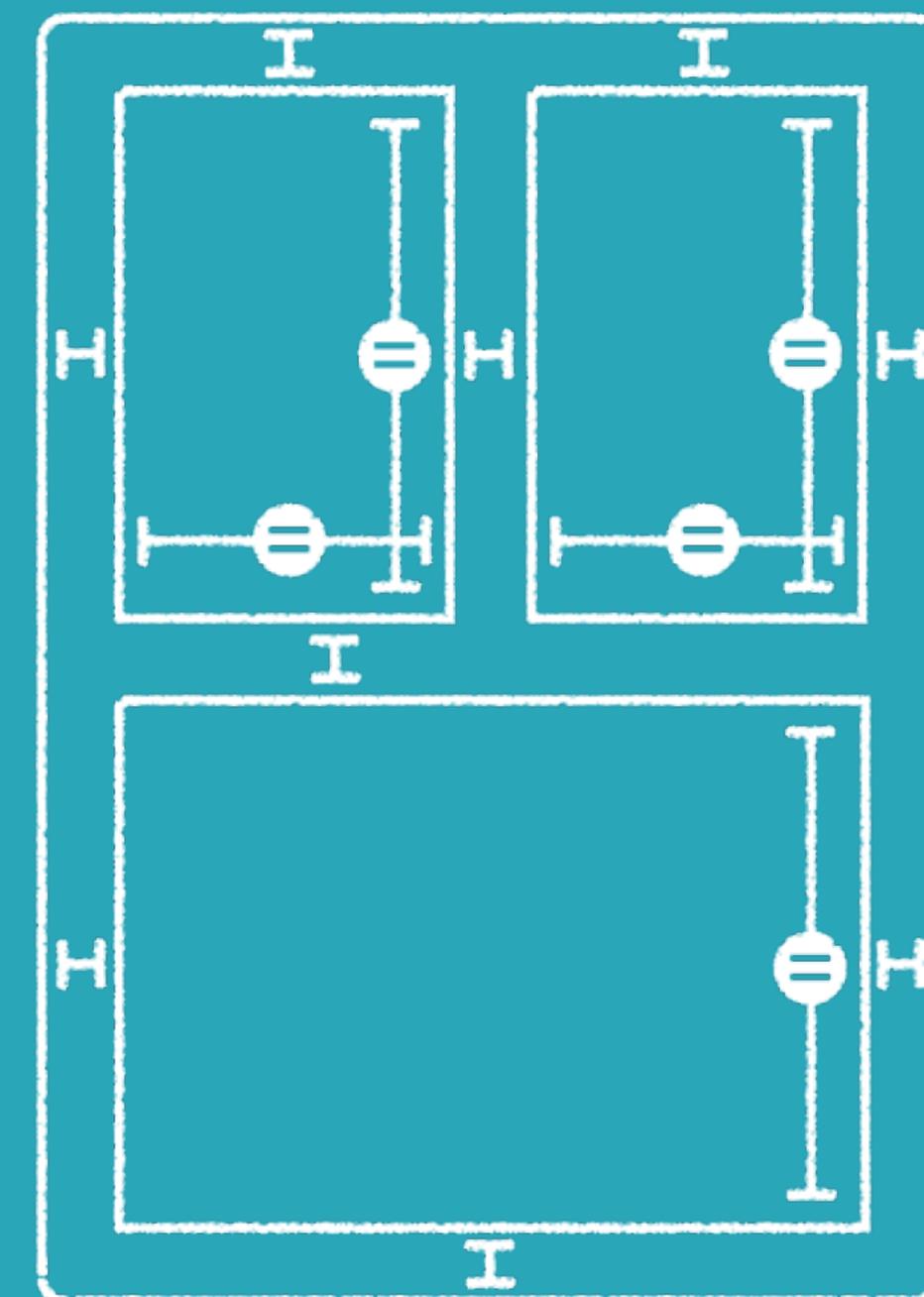
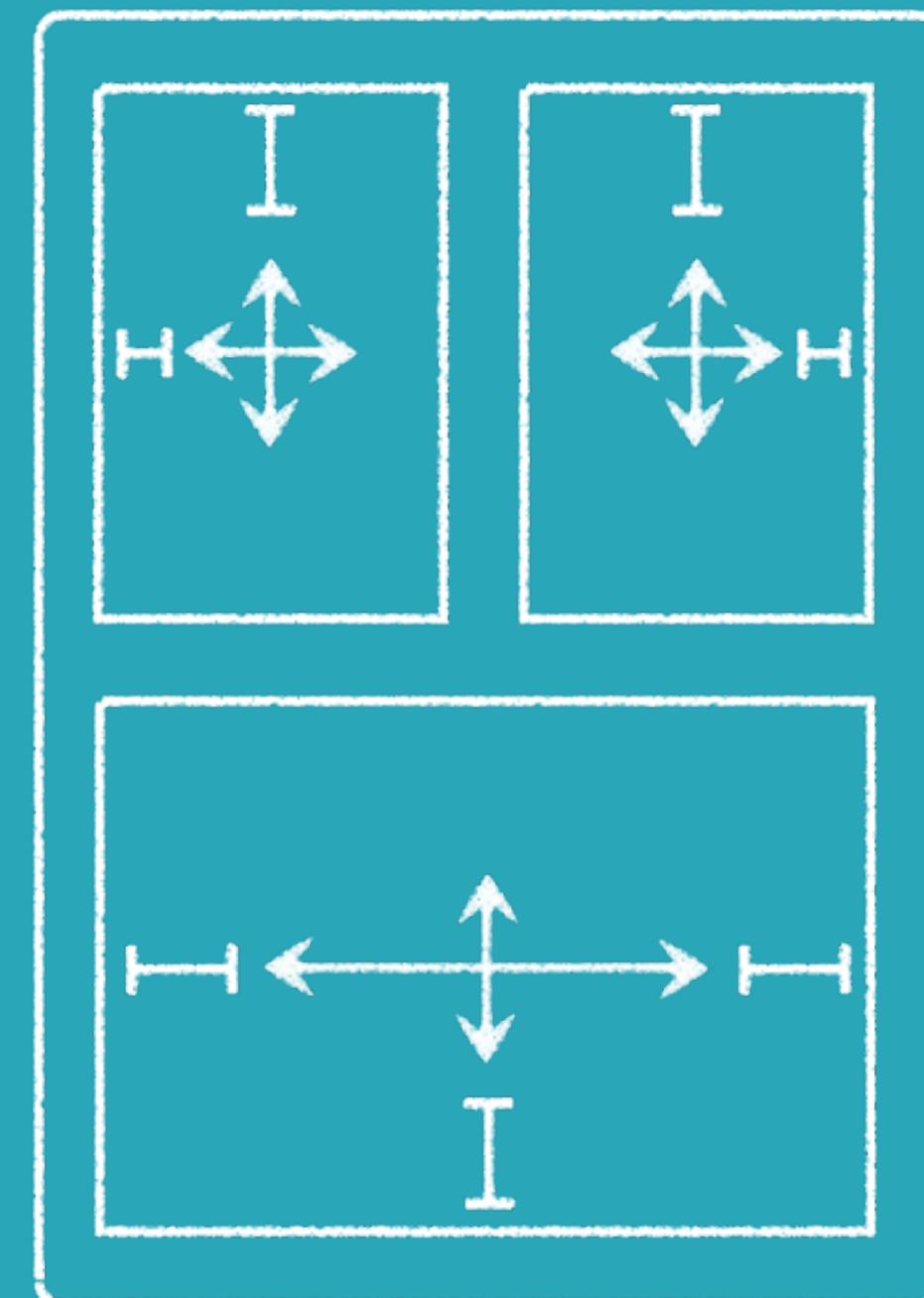
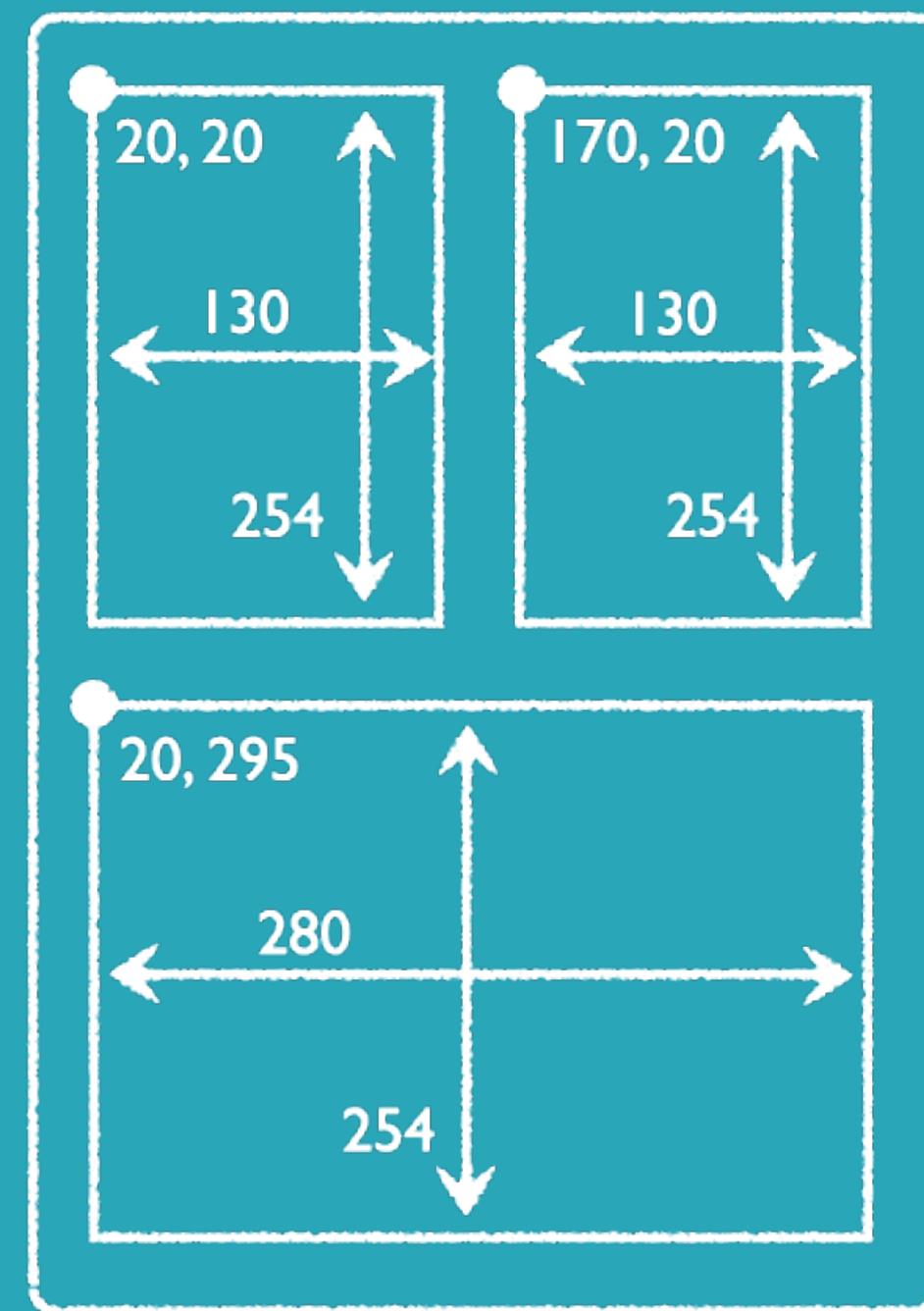


IOS - Xcode

ESTRUTURA



Constrains e Auto Layout:

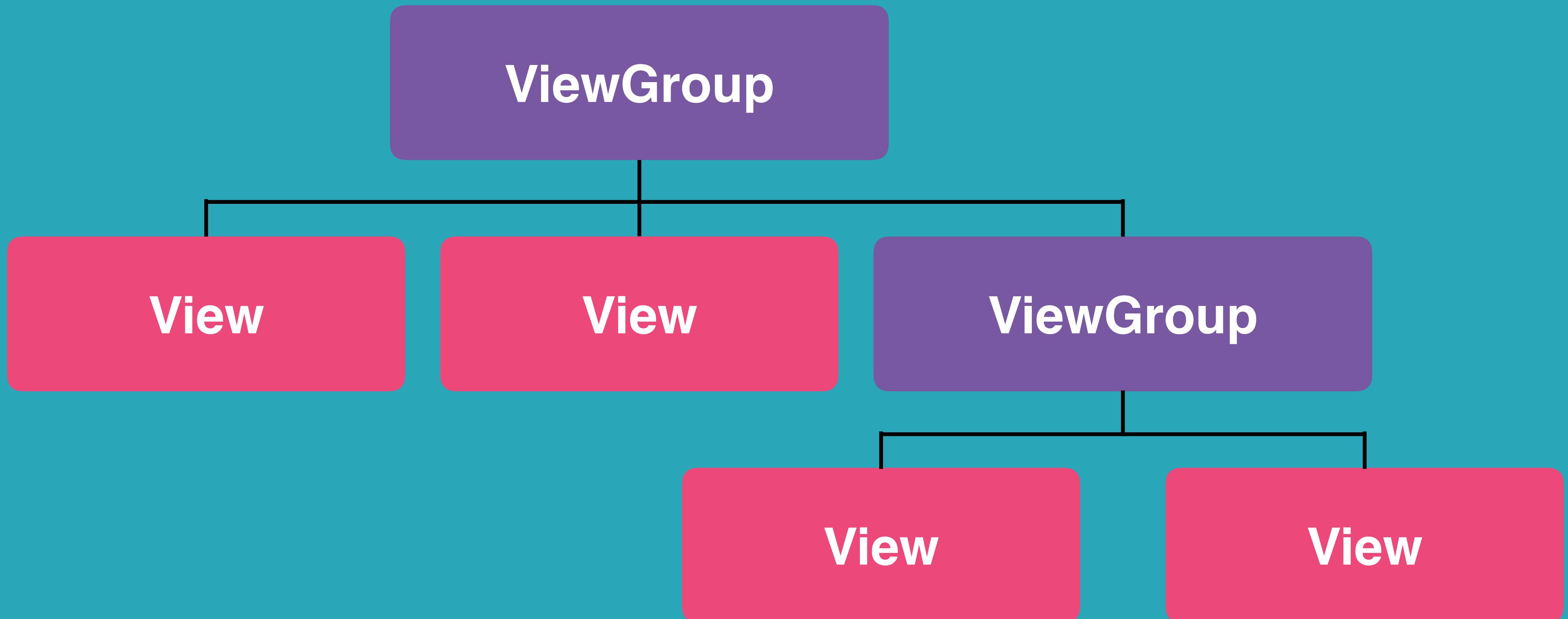




Android



GERENCIADORES DE LAYOUTS

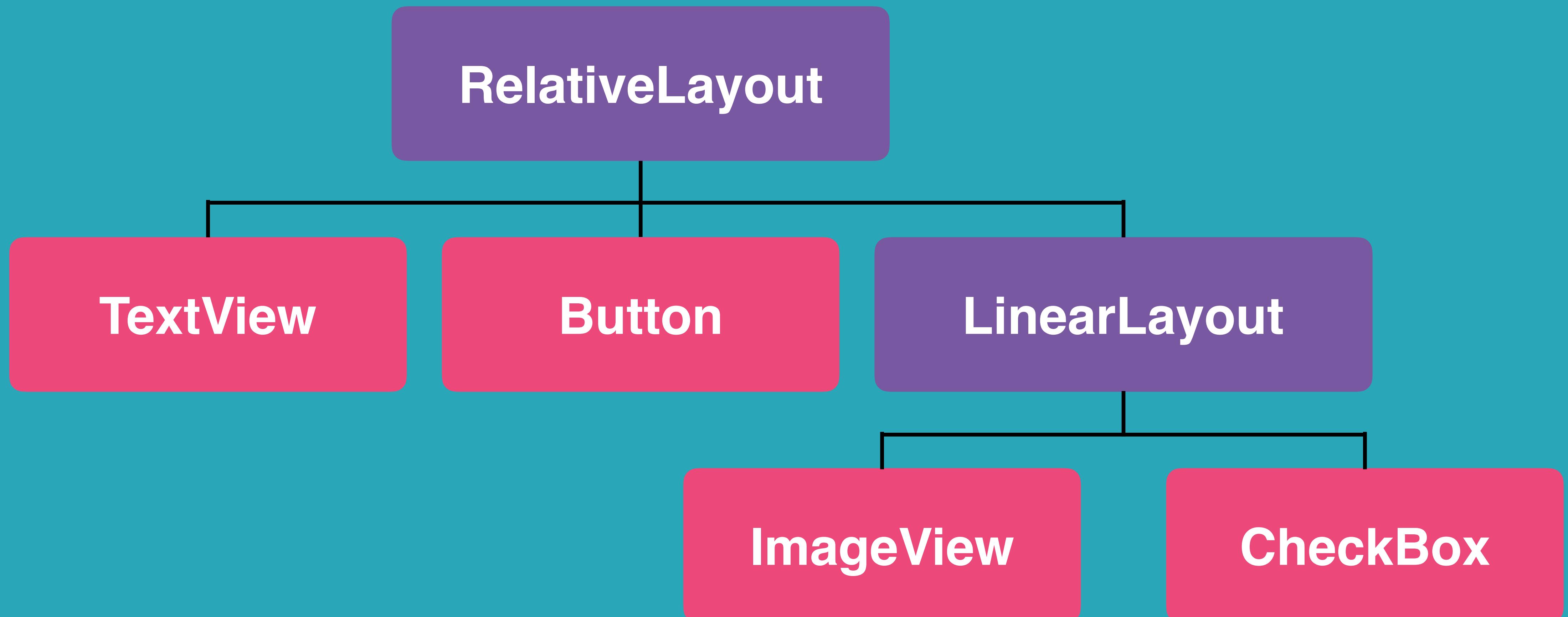




Android



GERENCIADORES DE LAYOUTS



OBRIGADO!

