



**AWESOME NATIVE APPS WITH
NATIVESCRIPT AND ANGULAR!**



AWESOME NATIVE APPS WITH NATIVESCRIPT AND ANGULAR!
MOBILIZATION 7



ROWDY RABOUW

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FREELANCE WEB AND APP DEVELOPER
DOUBLE-R WEBDEVELOPMENT

CURATOR
NATIVESCRIPT.NL

TELERIK DEVELOPER EXPERT
FOR NATIVESCRIPT





NATIVESCRIPT

AWESOME NATIVE APPS WITH NATIVESCRIPT AND ANGULAR!
MOBILIZATION 7

@ROWDYRABOUW

NATIVESCRIPT

OPEN SOURCE FRAMEWORK FOR BUILDING TRULY NATIVE MOBILE APPS WITH JAVASCRIPT

TOGETHER WITH MARKUP (XML/HTML) AND CSS

AND NATIVE CODE IF YOU WANT

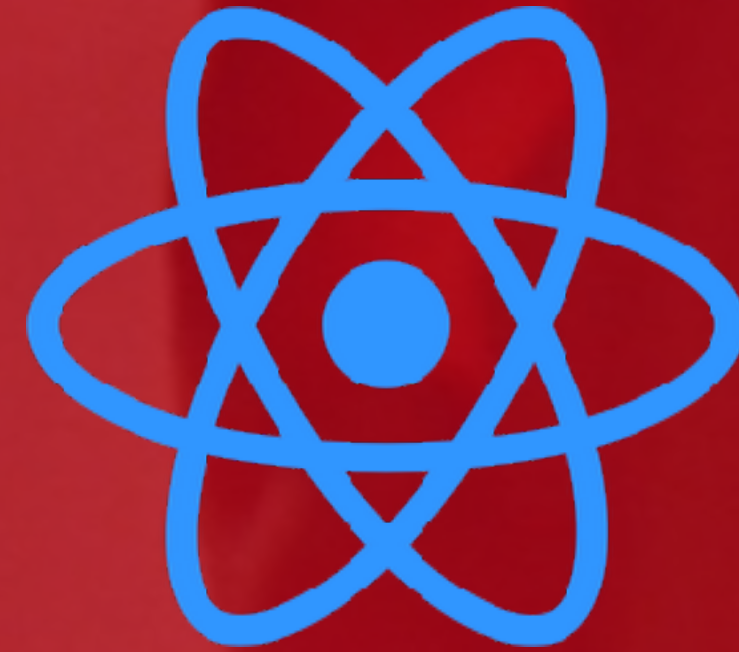
CROSS PLATFORM : ONE CODEBASE FOR IOS AND ANDROID

NOT PHONEGAP OR IONIC



- NO DOM TO MANIPULATE
- NOT HTML ELEMENTS **STYLED** LIKE NATIVE COMPONENTS
- REAL NATIVE COMPONENTS

NOT REACT NATIVE



- NO WRITING OBJECTIVEC, SWIFT OR JAVA
- {N} JAVASCRIPT HAS 100% ACCESS TO NATIVE APIS

NOT XAMARIN



- NO CROSS COMPILING
- 100% ACCESS TO NATIVE APIS WITHOUT WRITING BINDINGS
- NO .NET OR C#

JAVASCRIPT

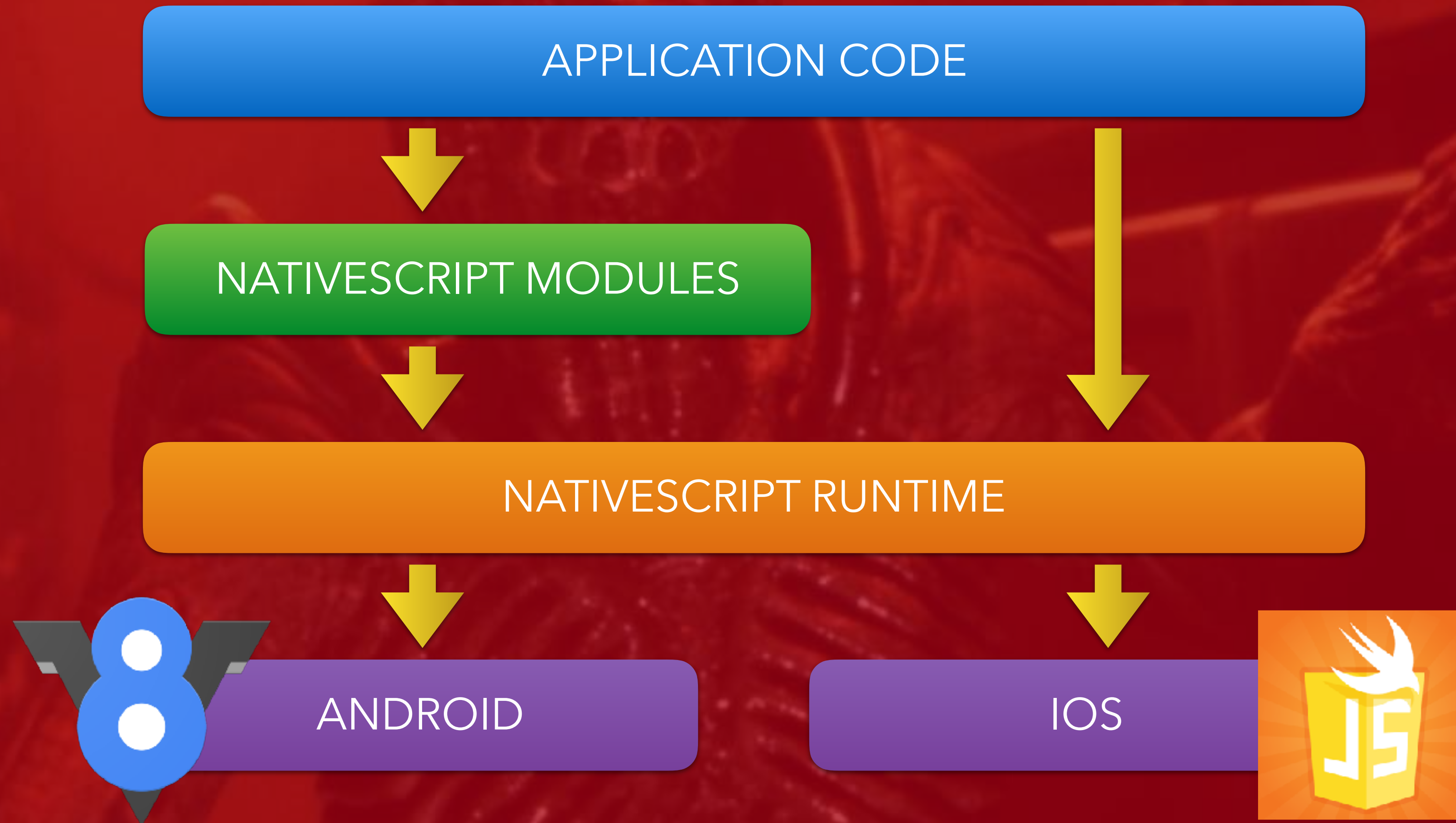


ANGULAR 2



- OPINIONATED JAVASCRIPT FRAMEWORK
- OBJECT ORIENTED
- CLASSES
- TYPESCRIPT
- FULL-FEATURED ROUTING
- DEPENDENCY INJECTION
- DATA BINDING
- DOCUMENTATION
- COMMUNITY

HOW DOES NATIVESCRIPT WORK?



NATIVESCRIPT HISTORY



JUNE 2014: NATIVESCRIPT IS ANNOUNCED BY TELERIK

DECEMBER 2014: TELERIK IS ACQUIRED BY PROGRESS SOFTWARE

MAY 2015: VERSION 1.0 LAUNCHED

MAY 2016: VERSION 2.0 LAUNCHED (TIGHT ANGULAR 2 INTEGRATION)

MAY 2017: VERSION 3.0 LAUNCHED

NPM

NODE PACKAGE MANAGER

The NPM logo consists of the lowercase letters 'npm' in a white, bold, sans-serif font, centered within a red rectangular background.

LOTS OF PREBUILT CODE

OVER 530.000 NPM PACKAGES

ANDROID ARSENAL

COCOAPODS

The CocoaPods logo features the text '<COCOAPODS>' in a white, bold, sans-serif font, centered within a red rectangular background.

HOW TO START?

INSTALL NODE.JS

INSTALL NATIVESCRIPT CLI

```
> npm install -g nativescript
```

INSTALL IOS AND ANDROID REQUIREMENTS (SCRIPT)

```
> ruby -e "$(curl -fsSL https://www.nativescript.org/setup/mac)"
```

```
> @powershell -NoProfile -ExecutionPolicy Bypass -Command  
"iex ((new-object net.webclient).DownloadString('https://  
www.nativescript.org/setup/win'))"
```

VERIFY THE SETUP

```
> tns doctor
```

NATIVESCRIPT CLI

CREATING APPS

```
> tns create HelloWorld --ng
```

RUNNING APPS

```
> cd HelloWorld  
> tns run ios  
> tns run android
```


LAYOUTS & NATIVE ELEMENTS

A person is walking away from the viewer through a tunnel-like structure. The walls of the tunnel are composed of numerous thin, curved lines that create a sense of depth and movement. The overall color scheme is a deep red.

MARKUP

```
<ActionBar title="Mobilization7"></ActionBar>  
  
<StackLayout>  
  <Label text="Hello ŁÓDŹ"></Label>  
</StackLayout>
```

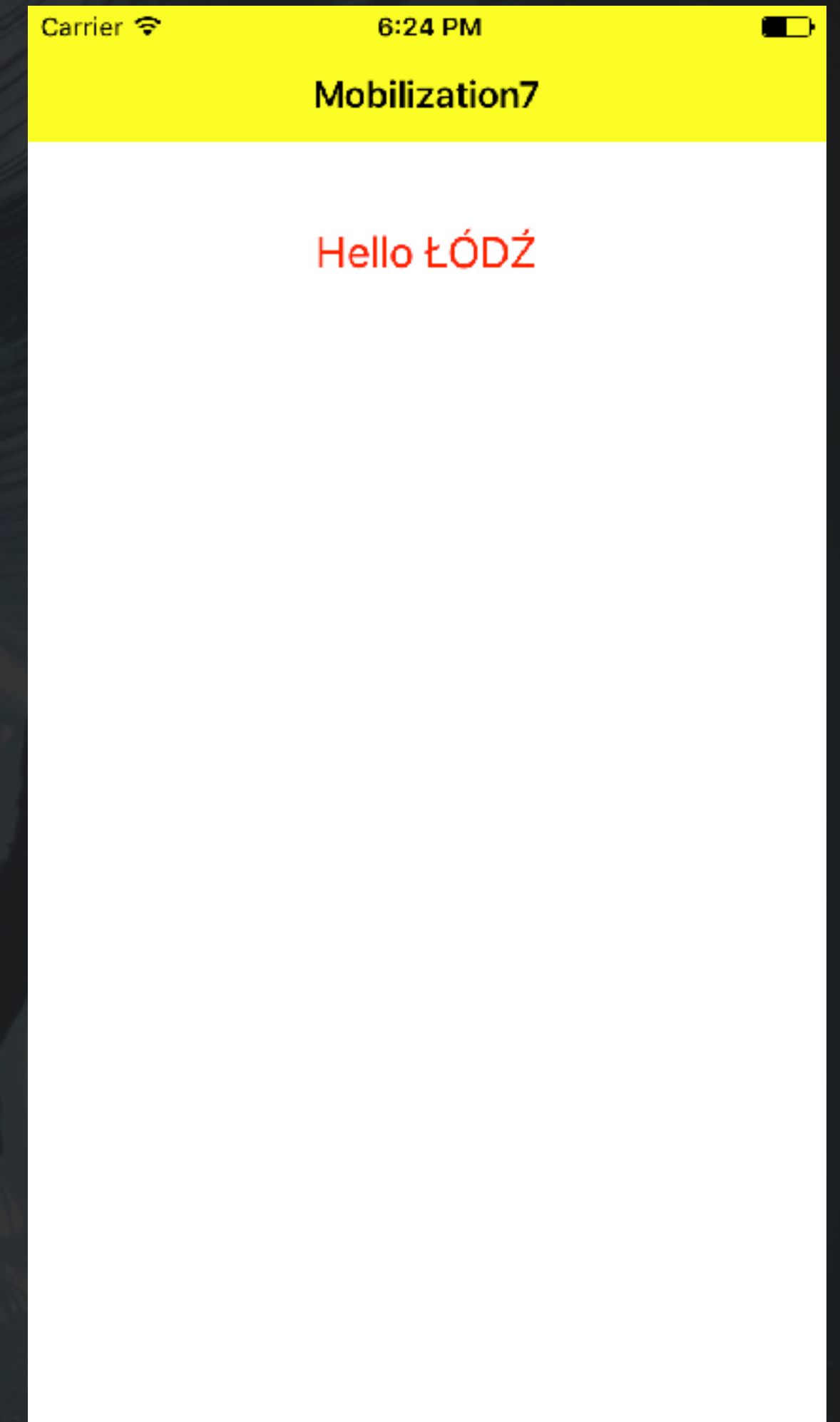


CSS

```
Actionbar {  
  background-color: yellow;  
}
```

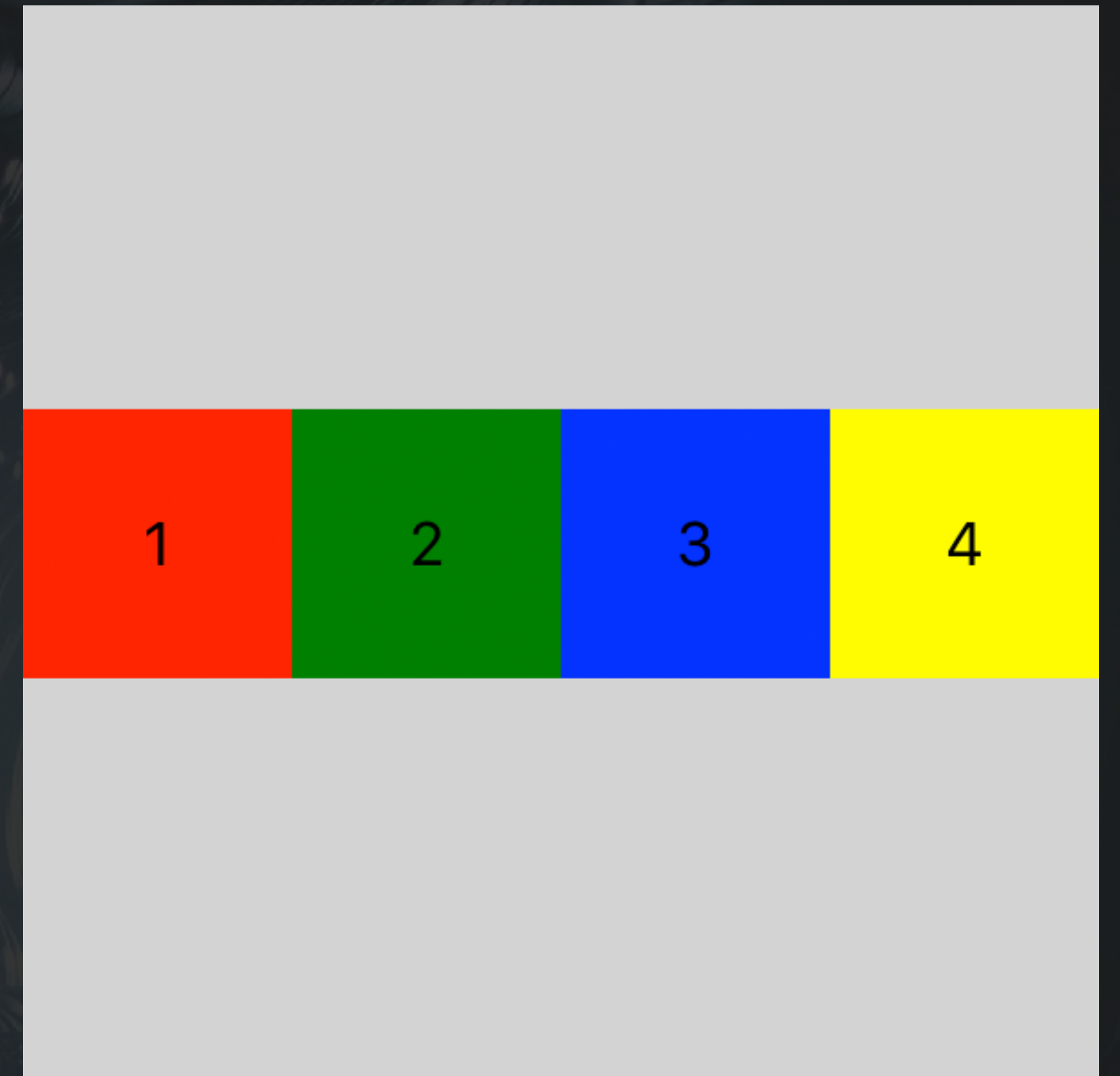
```
Stacklayout {  
  padding: 40;  
  text-align: center;  
}
```

```
Label {  
  font-size: 20;  
  color: red;  
}
```



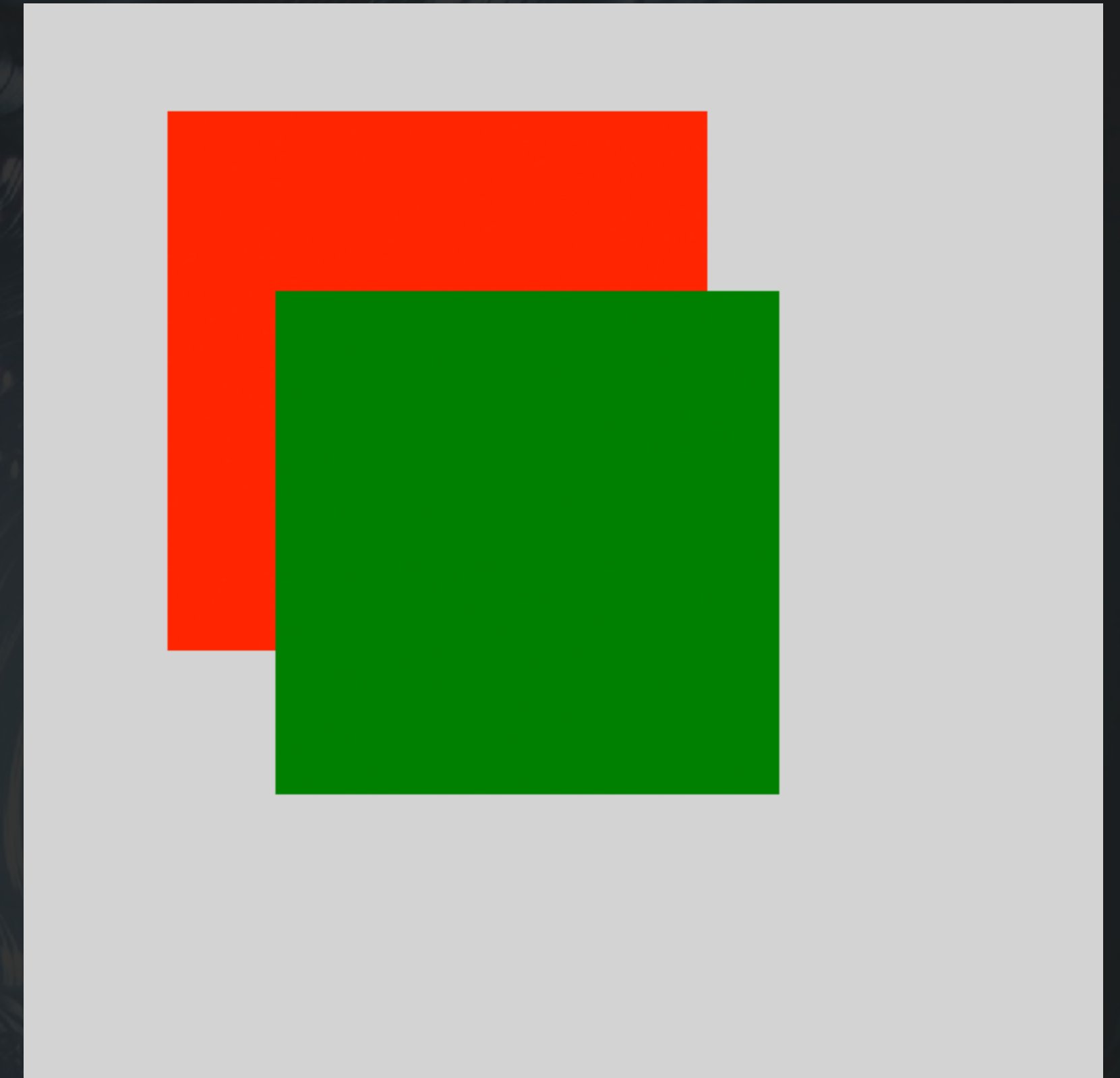
STACKLAYOUT

```
<StackLayout orientation="horizontal">  
  <Label text="1"></Label>  
  <Label text="2"></Label>  
  <Label text="3"></Label>  
  <Label text="4"></Label>  
</StackLayout>
```



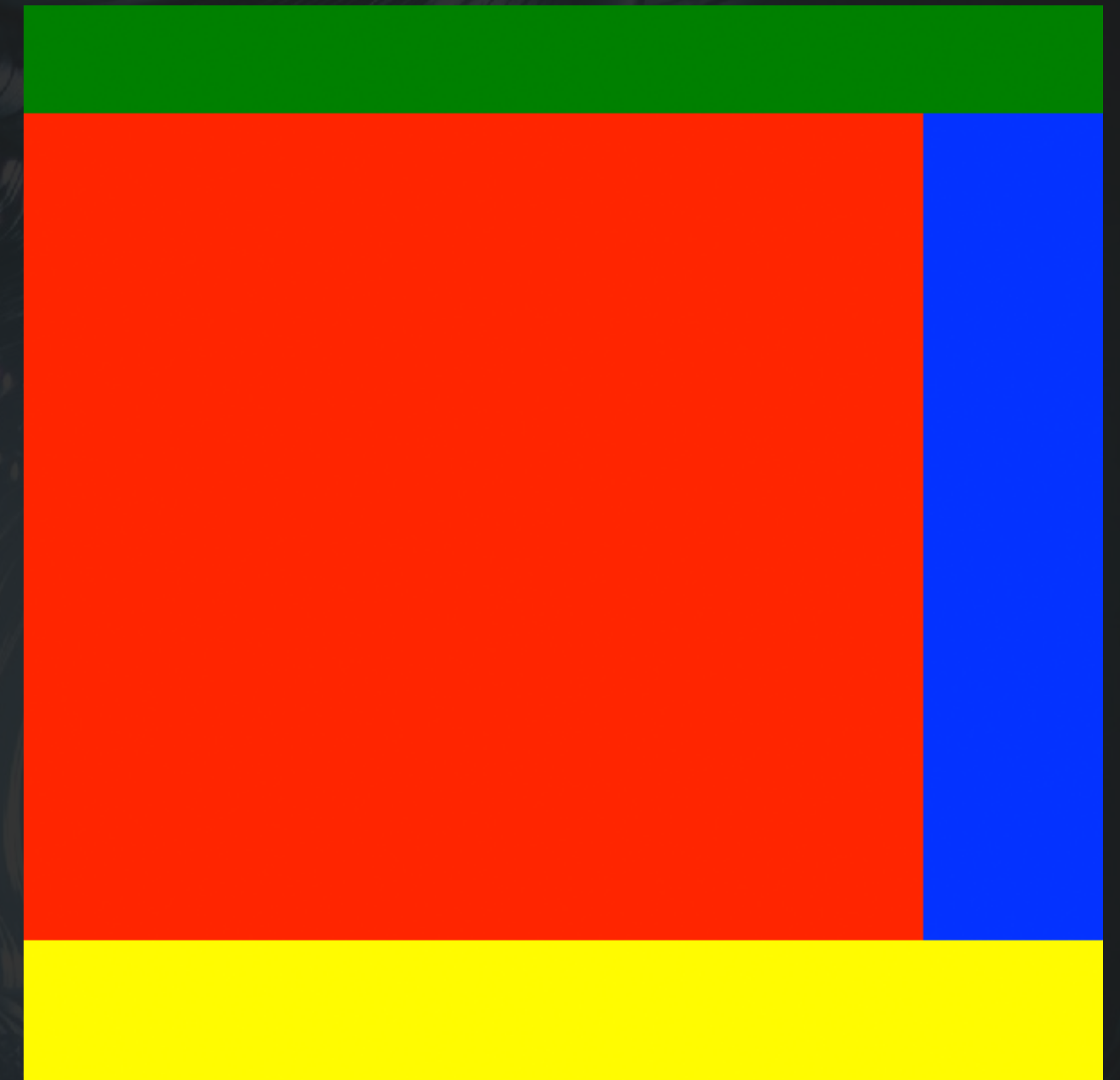
ABSOLUTELAYOUT

```
<AbsoluteLayout>  
  <Label left="40" top="30"></Label>  
  <Label left="70" top="80"></Label>  
</AbsoluteLayout>
```



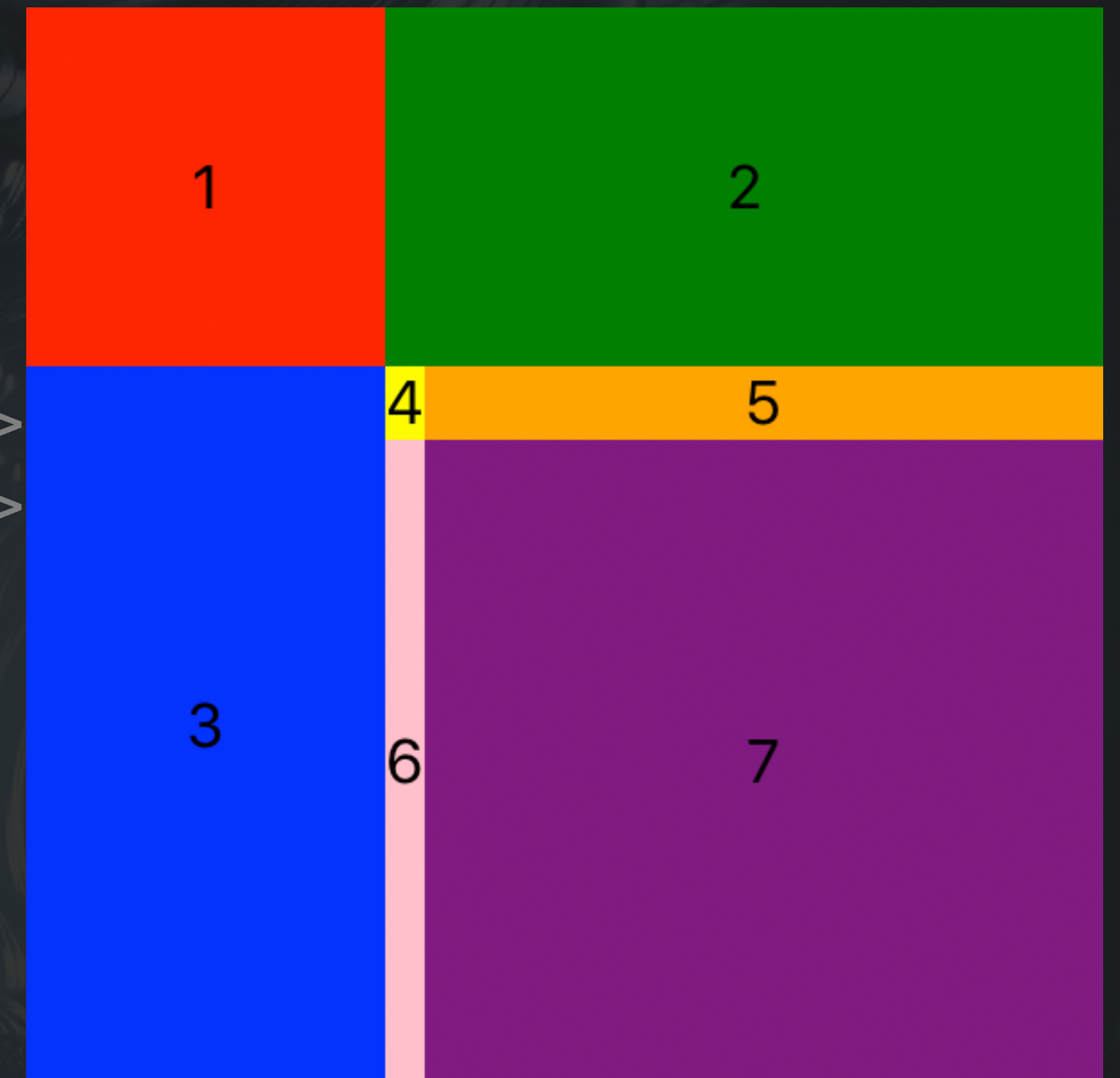
DOCKLAYOUT

```
<DockLayout stretchLastChild="true">  
  <Label dock="top"></Label>  
  <Label dock="bottom"></Label>  
  <Label dock="right"></Label>  
  <Label dock="left"></Label>  
</DockLayout>
```



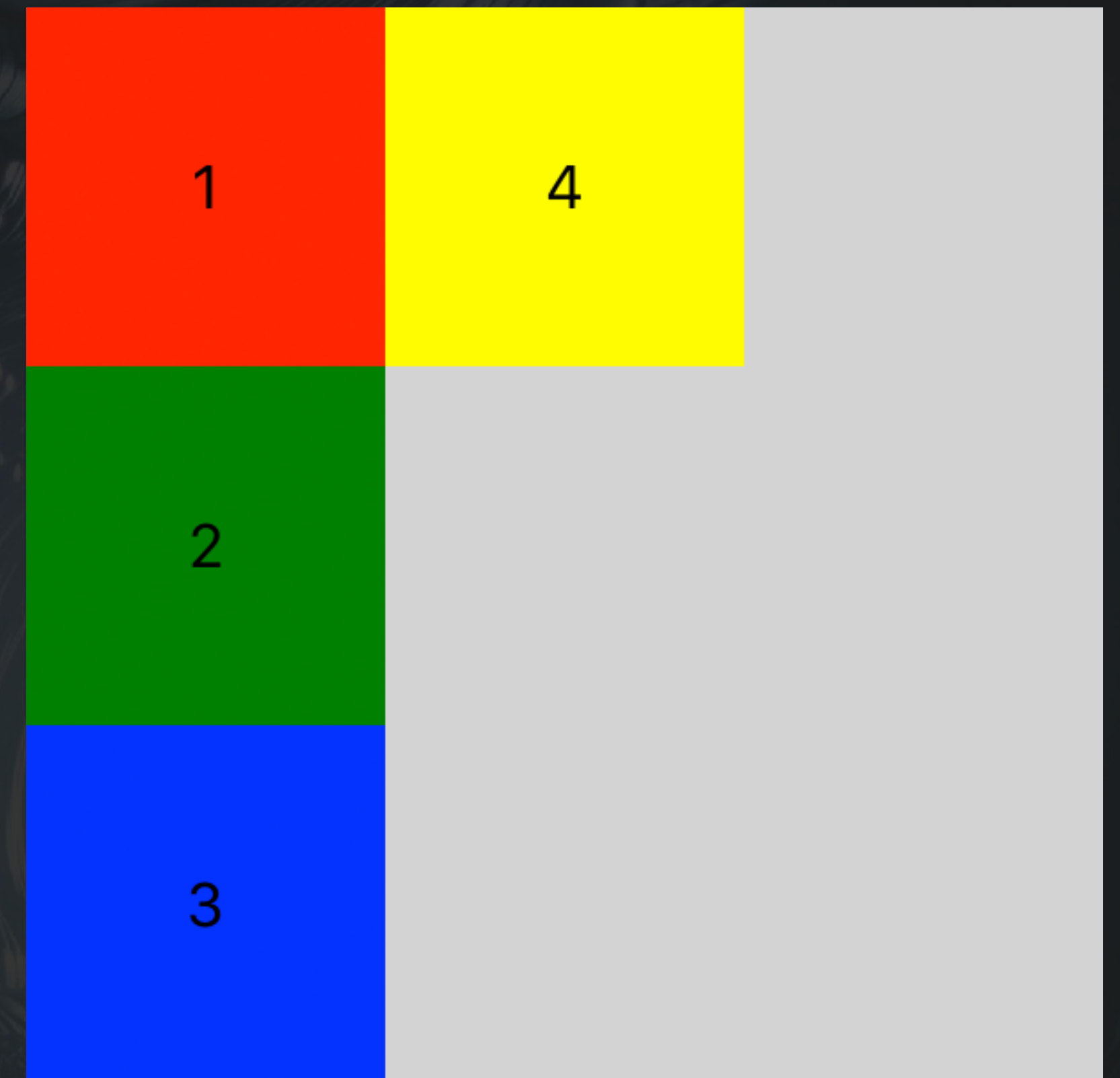
GRIDLAYOUT

```
<GridLayout
  columns="100, auto, *" rows="100, auto, *">
  <Label text="1" row="0" col="0"></Label>
  <Label text="2" row="0" col="1" colSpan="2">
  <Label text="3" row="1" col="0" rowSpan="2">
  <Label text="4" row="1" col="1"></Label>
  <Label text="5" row="1" col="2"></Label>
  <Label text="6" row="2" col="1"></Label>
  <Label text="7" row="2" col="2"></Label>
</GridLayout>
```



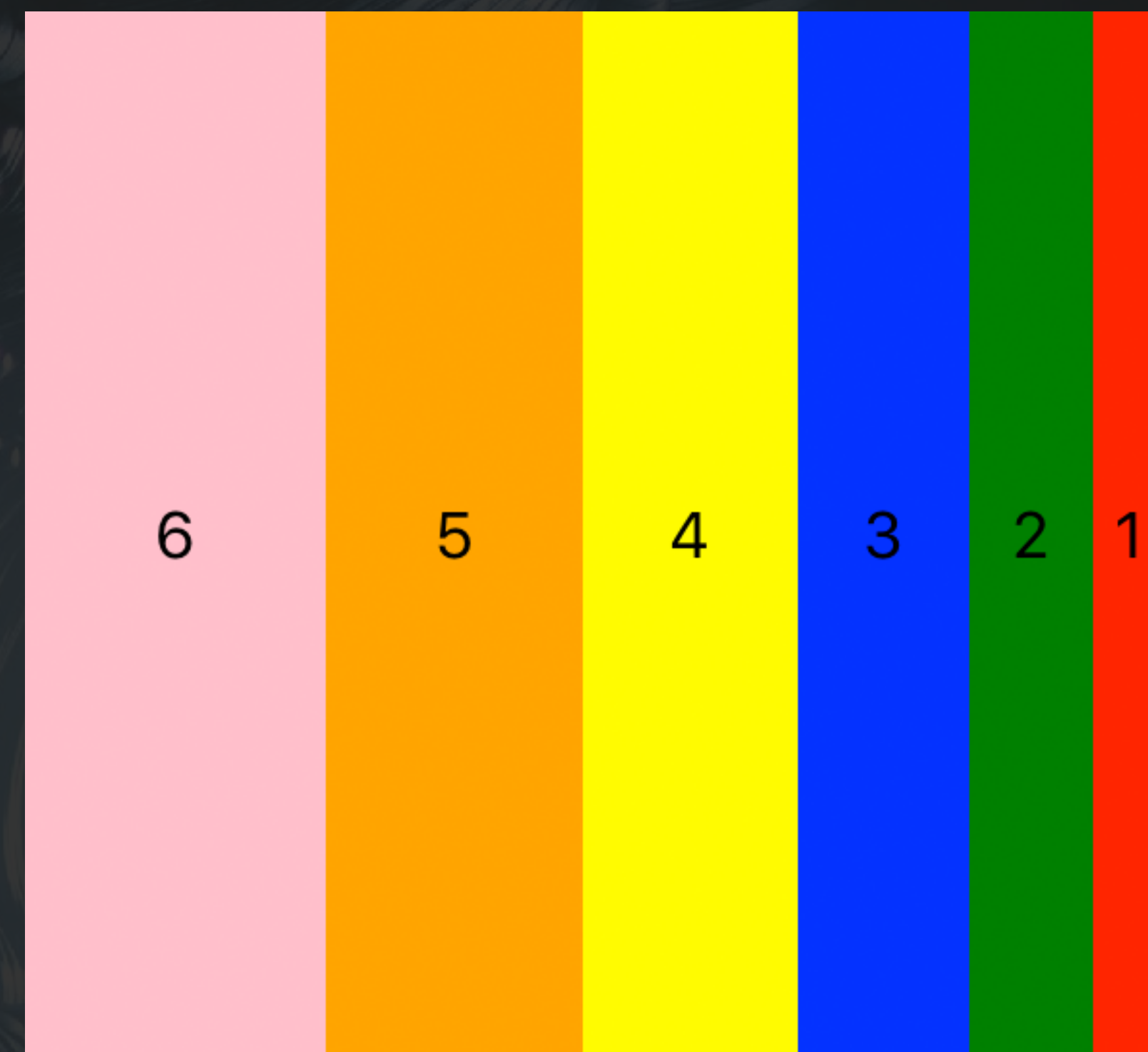
WRAPLAYOUT

```
<WrapLayout orientation="vertical">  
  <Label text="1"></Label>  
  <Label text="2"></Label>  
  <Label text="3"></Label>  
  <Label text="4"></Label>  
</WrapLayout>
```



FLEXBOXLAYOUT

```
<FlexboxLayout flexDirection="row-reverse">  
  <Label text="1" flexGrow="1"></Label>  
  <Label text="2" flexGrow="2"></Label>  
  <Label text="3" flexGrow="3"></Label>  
  <Label text="4" flexGrow="4"></Label>  
  <Label text="5" flexGrow="5"></Label>  
  <Label text="6" flexGrow="6"></Label>  
</FlexboxLayout>
```



LIVE CODING 🤯

LAYOUTS & NATIVE ELEMENTS & NATIVE CODE



MULTILINGUAL

MULTILINGUAL

NGX-TRANSLATE IS AN INTERNATIONALIZATION LIBRARY FOR ANGULAR 2+

DEFINE TRANSLATIONS FOR YOUR CONTENT IN DIFFERENT LANGUAGES
AND SWITCH BETWEEN THEM EASILY



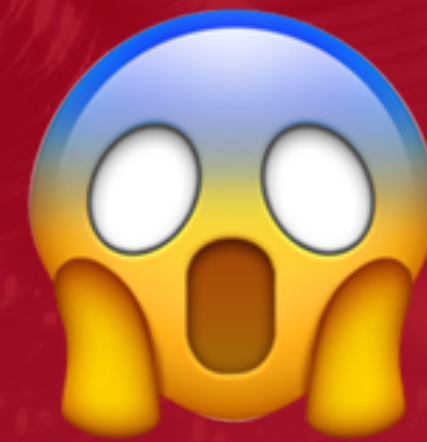
MULTILINGUAL

```
{
  "HOME": {
    "TITLE": "Mobilization7",
    "TAGLINE": "Whoever wins... we win!"
  },
  "SLIDERS": {
    "TITLE": "Sliders",
    "HEADER": "Default Slider",
    "HEADER_CUSTOM": "Custom iOS Slider"
  },
  "VIDEO": {
    "TITLE": "Video"
  },
  "SOUNDBOARD": {
    "TITLE": "Soundboard"
  }
}
```

MULTILINGUAL

```
<StackLayout>  
  <Label [text]='HOME.TAGLINE' | translate"></Label>  
</StackLayout>
```

LIVE CODING



MULTILINGUAL



PLUGINS

PLUGINS

NATIVESCRIPT VIDEO PLAYER

TNS PLUGIN ADD NATIVESCRIPT-VIDEOPLAYER

- ANDROID: MEDIAPLAYER
- IOS: AVPLAYER

```
<VideoPlayer src="[source]" autoplay="true" height="300" />
```

DEMO 

NATIVESCRIPT VIDEO PLAYER

PLUGINS

NATIVESCRIPT TEXT TO SPEECH

TNS PLUGIN ADD NATIVESCRIPT-TEXTTOSPEECH

- ANDROID: TEXTTOSPEECH
- IOS: AVSPEECHSYNTHESIZER

```
let TTS = new TNSTextToSpeech();
let speakOptions: SpeakOptions = {
  text: 'Hello world!',
  speakRate: 0.5, // optional - default is 1.0
  pitch: 1.0, // optional - default is 1.0
  volume: 1.0, // optional - default is 1.0
  locale: "en-GB", // optional - default is system locale,
}
TTS.speak(speakOptions);
```

DEMO 🤨

NATIVESCRIPT TEXT TO SPEECH

PLUGINS

NATIVESCRIPT AUDIO

TNS PLUGIN ADD NATIVESCRIPT-AUDIO

- ANDROID: MEDIAPLAYER / MEDIARECORDER
- IOS: AVAUDIOPLAYER / AVAUDIORECORDER

```
this._player = new TNSPlayer();
this._player.initFromFile({
  audioFile: "[source]",
  loop: false
});
this._player.play();
```

DEMO



NATIVESCRIPT AUDIO

PLUGINS

NATIVESCRIPT FINGERPRINT AUTHENTICATION

TNS PLUGIN ADD NATIVESCRIPT-FINGERPRINT-AUTH

- ALSO WORKS WITH FACE ID ON IPHONE X

```
doVerifyFingerprint(): void {
  this.fingerprintAuth
    .verifyFingerprint({
      message: "Scan your finger" // optional
    })
    .then(
      () => { alert({title: "Fingerprint / passcode OK"}) },
      () => { alert({title: "Fingerprint NOT OK / canceled"}) }
    );
}
```

DEMO



NATIVESCRIPT FINGERPRINT AUTHENTICATION

PLUGINS

NATIVESCRIPT SPEECH RECOGNITION

TNS PLUGIN ADD NATIVESCRIPT-SPEECH-RECOGNITION

- ANDROID: SPEECHRECOGNIZER
- IOS: SFSPEECHRECOGNIZER

```
this.speechRecognition
.startListening({
  locale: "en-US",
  returnPartialResults: true,
  onResult: (transcription: SpeechRecognitionTranscription) => {
    this.zone.run(() => (this.recognizedText = transcription.text));
  }
})
```

DEMO 🧐

NATIVESCRIPT SPEECH RECOGNITION

ALIEN³ - MURPHY

IN THE YEAR 7510
IF GOD'S A COMING, HE OUGHTA MAKE IT BY THEN
MAYBE HE'LL LOOK AROUND HIMSELF AND SAY
GUESS IT'S TIME FOR THE JUDGEMENT DAY

ZAGER & EVANS
IN THE YEAR 2525
(1969)



PLUGINS

NATIVESCRIPT BLUETOOTH LOW ENERGY

TNS PLUGIN ADD NATIVESCRIPT-MIP-BLE



DEMO 

NATIVESCRIPT BLUETOOTH LOW ENERGY

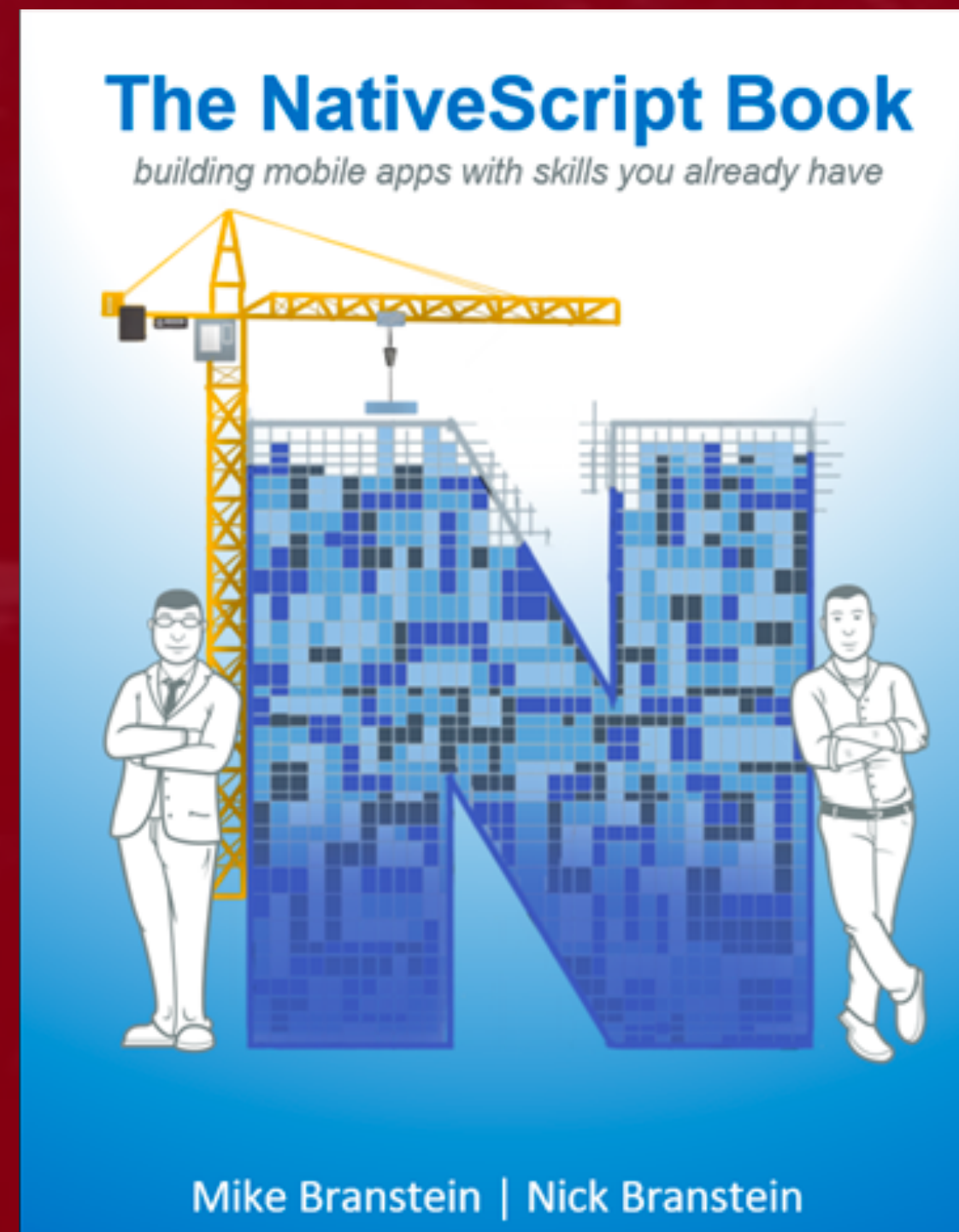


RESOURCES

RESOURCES

FREE NATIVESCRIPT BOOK

450 PAGES, 17 CHAPTERS, AND TONS OF CODE SAMPLES



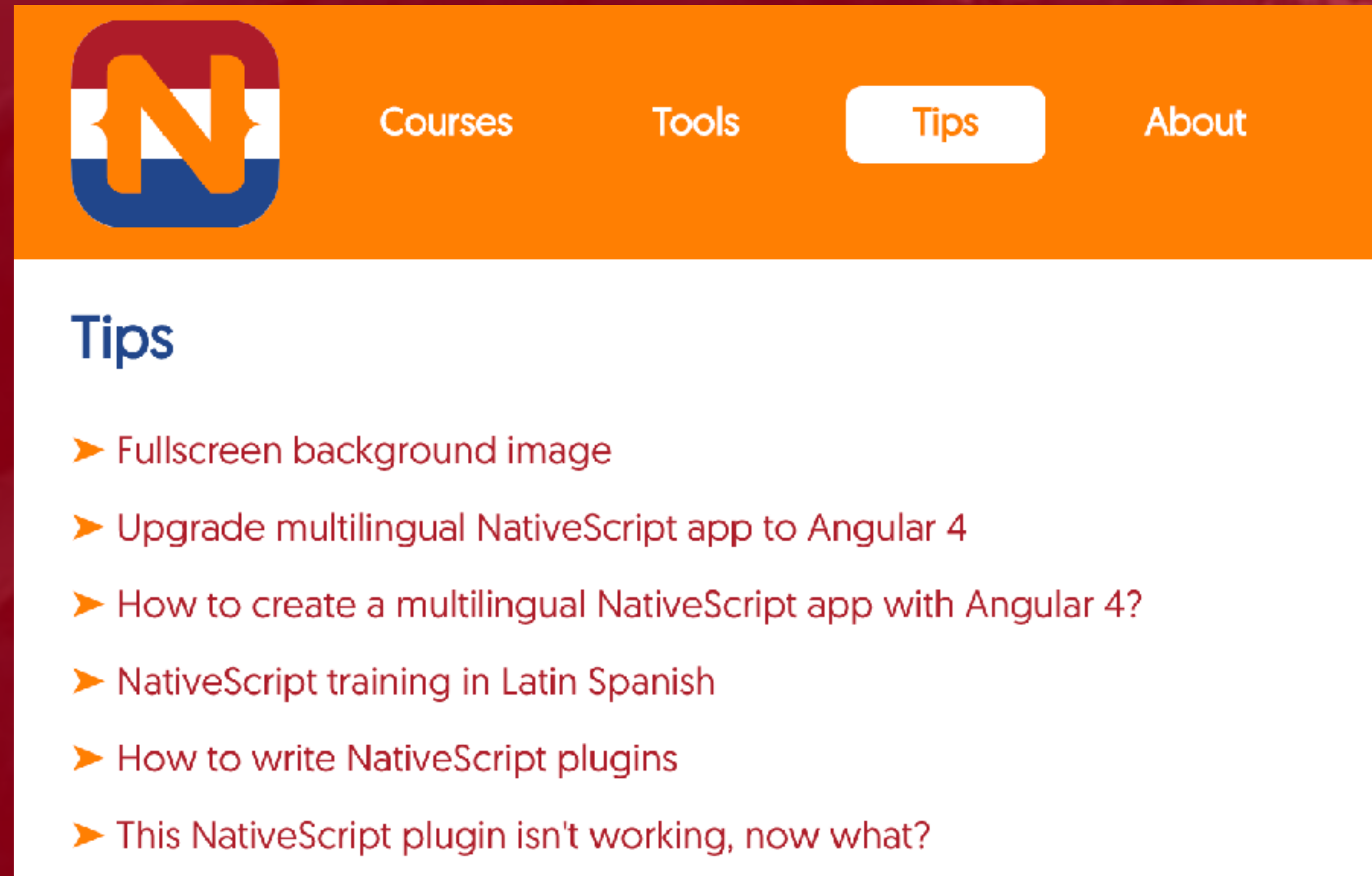
WRITTEN BY NATIVESCRIPT EXPERTS MIKE BRANSTEIN AND NICK BRANSTEIN

AWESOME NATIVE APPS WITH NATIVESCRIPT AND ANGULAR!
MOBILIZATION 7

@ROWDYRABOUW

RESOURCES

NATIVESCRIPT.NL



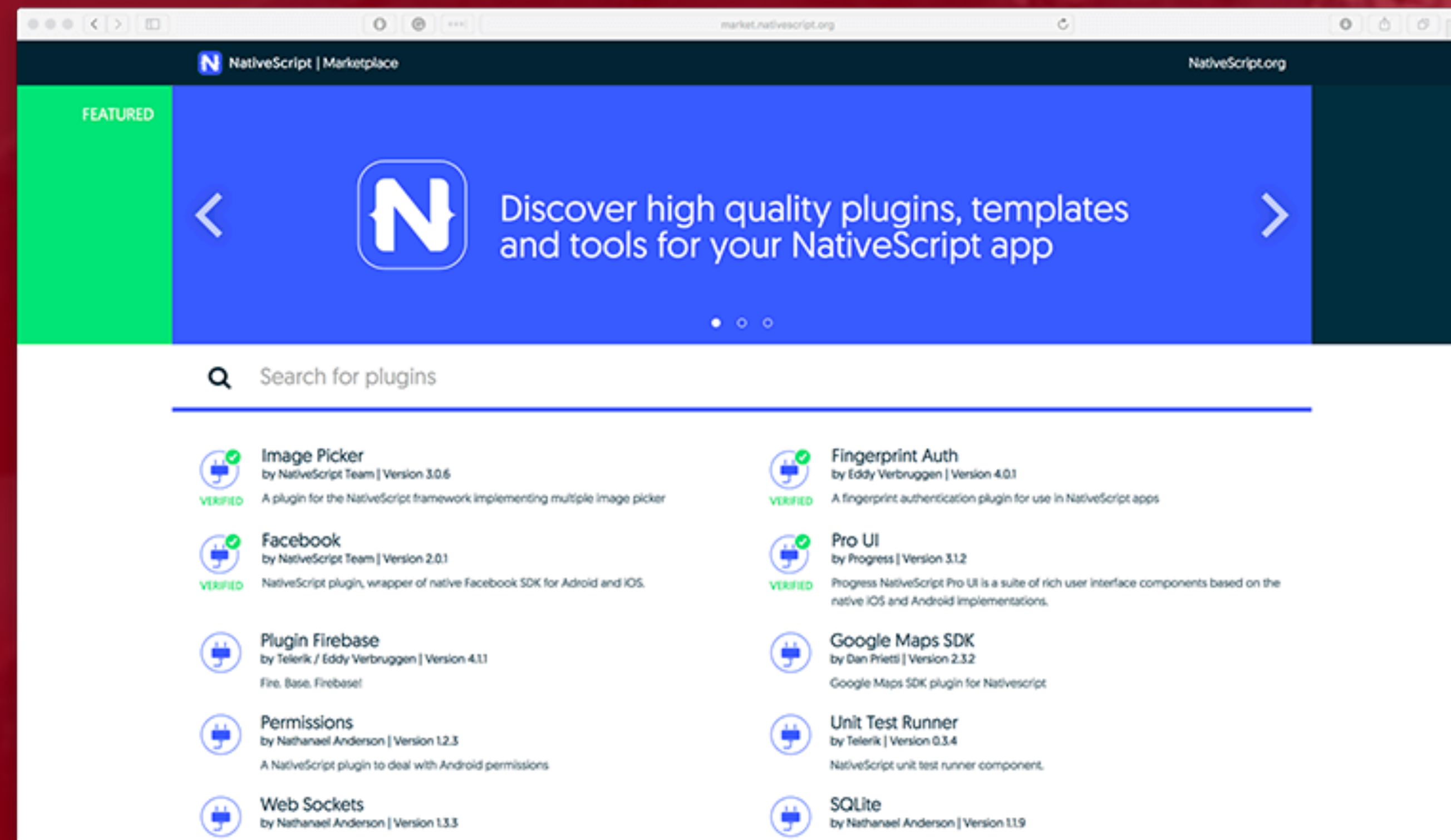
The screenshot shows the Nativescript.nl website interface. At the top, there is an orange navigation bar with the Nativescript logo on the left and four menu items: 'Courses', 'Tools', 'Tips' (which is highlighted with a white background), and 'About'. Below the navigation bar, the 'Tips' section is displayed with a blue heading. It contains a list of six articles, each preceded by a right-pointing chevron icon.

- ▶ Fullscreen background image
- ▶ Upgrade multilingual NativeScript app to Angular 4
- ▶ How to create a multilingual NativeScript app with Angular 4?
- ▶ NativeScript training in Latin Spanish
- ▶ How to write NativeScript plugins
- ▶ This NativeScript plugin isn't working, now what?

COURSES, TOOLS AND TIPS TO HELP YOU CODE AWESOME APPS

RESOURCES

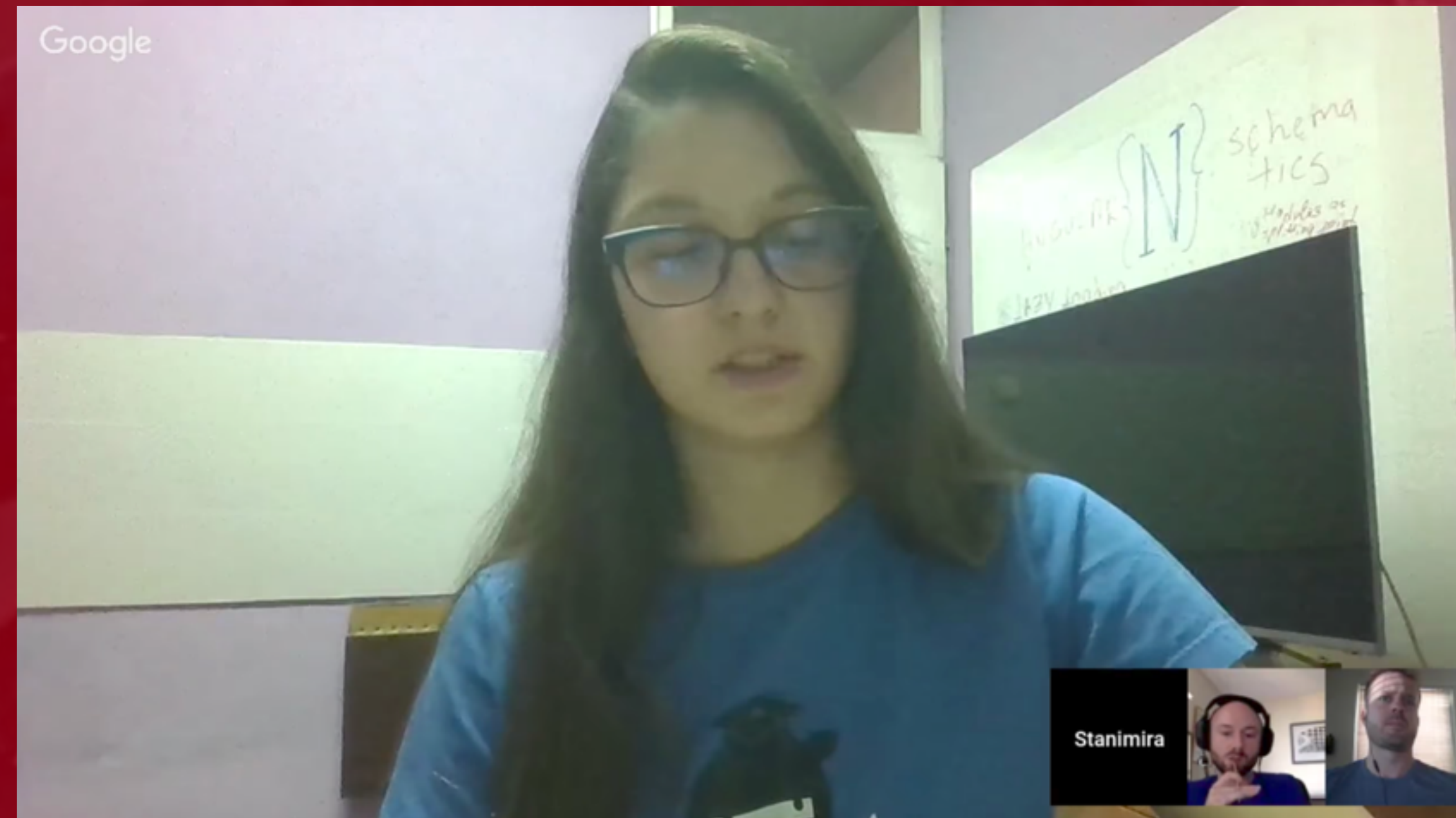
NATIVESCRIPT MARKETPLACE



HIGH QUALITY PLUGINS, TEMPLATES AND TOOLS

RESOURCES

NATIVESCRIPT AIR



- IMPROVING PERFORMANCE OF A NATIVESCRIPT APP WITH STANIMIRA VLAEVA
- LAYOUTING A NATIVESCRIPT APP WITH BRAD MARTIN

RESOURCES

NATIVESCRIPT ANGULAR BOOK

200 PAGES



WRITTEN BY NATIVESCRIPT EXPERTS NATHAN WALKER AND NATHANAEL ANDERSON

AWESOME NATIVE APPS WITH NATIVESCRIPT AND ANGULAR!
MOBILIZATION 7

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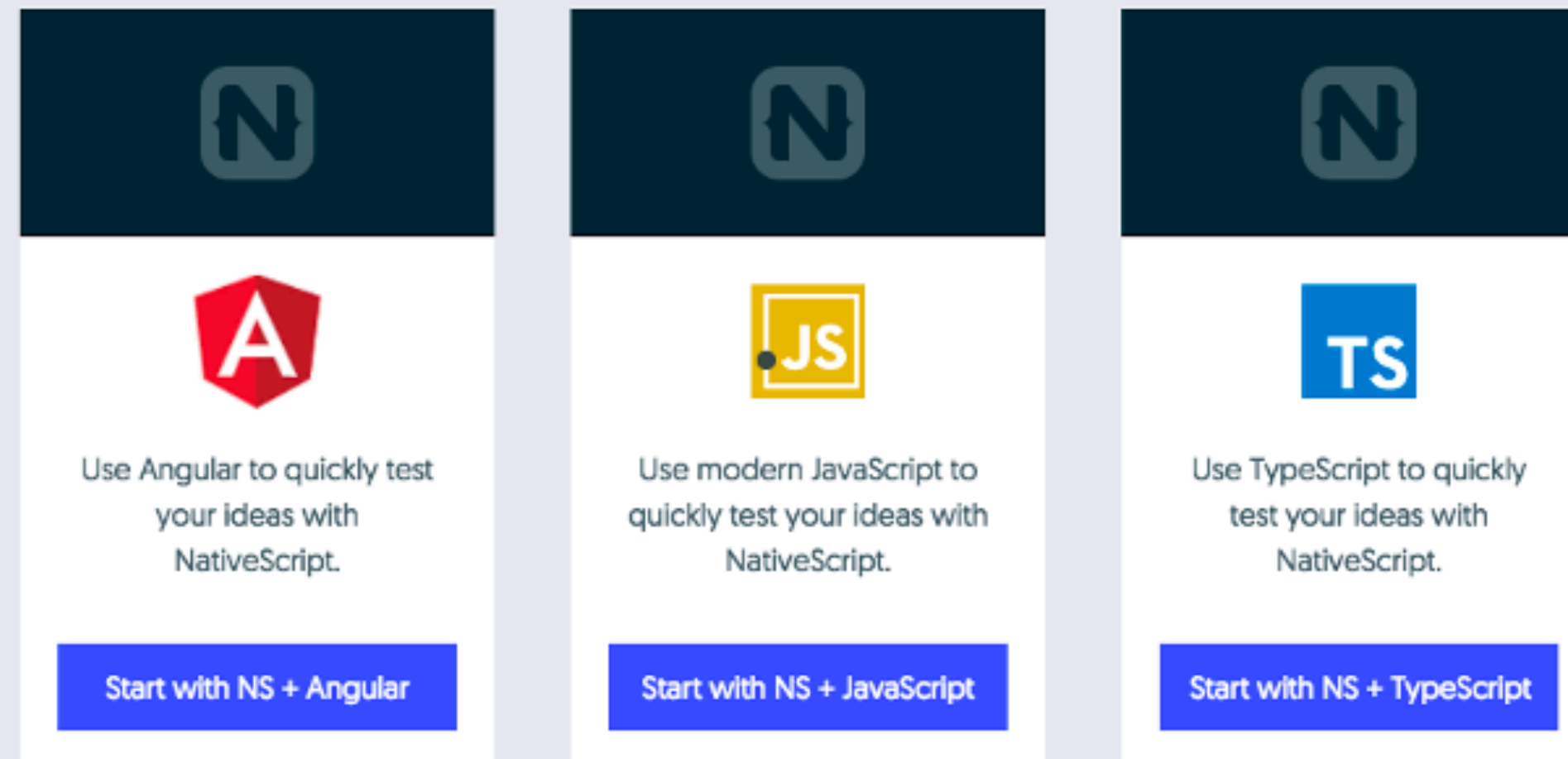
RESOURCES

NATIVESCRIPT PLAYGROUND

Get started with NativeScript Playground

NativeScript Playground is the ultimate solution to quickly and easily test your NS code. Explore your ideas now!

Choose a template and start experimenting...



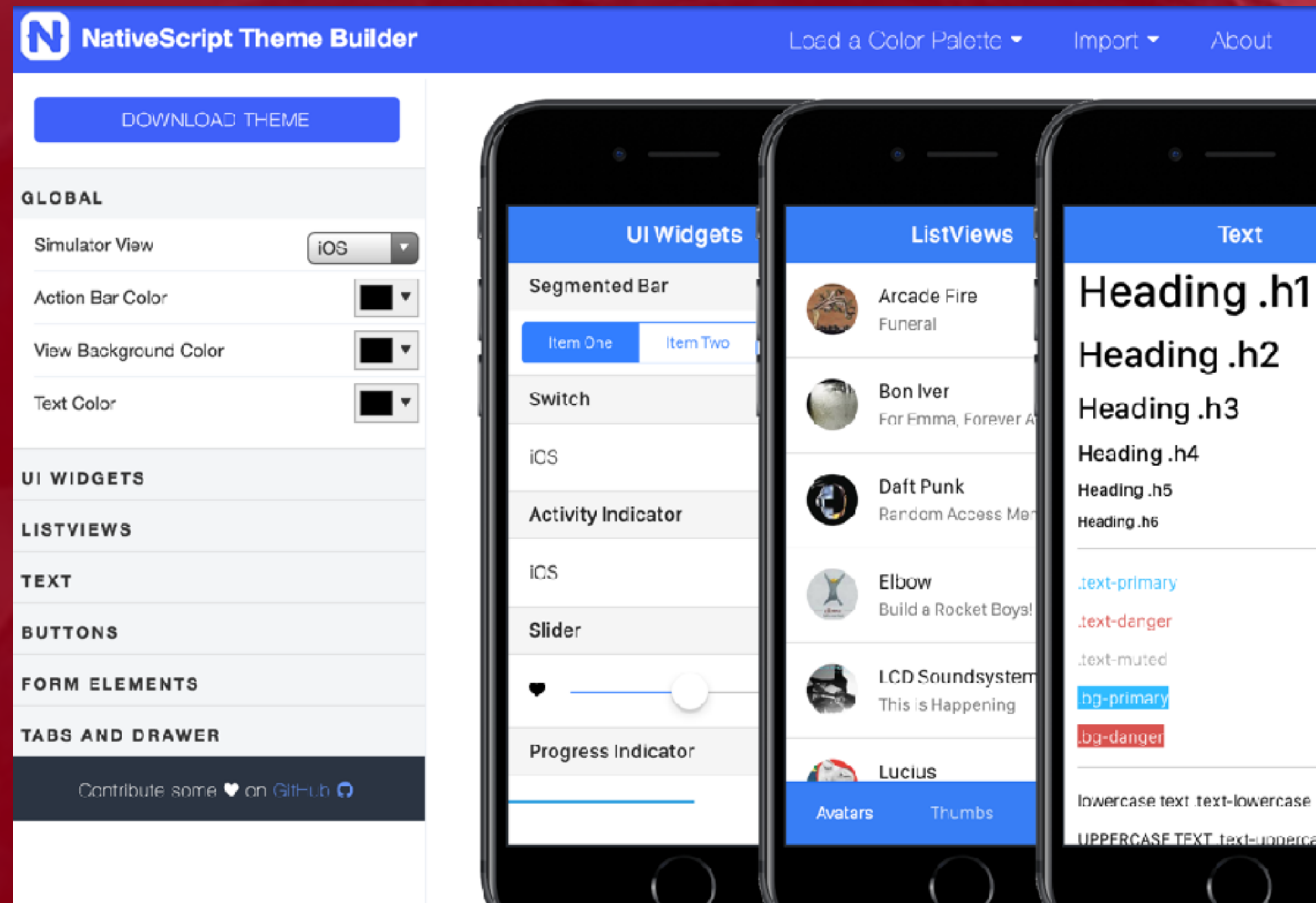
The screenshot displays three template options for starting a NativeScript project. Each option features the NativeScript 'N' logo at the top, followed by a framework logo (Angular 'A', JavaScript 'JS', or TypeScript 'TS'). Below the logo is a brief description and a blue button to start the project.

Framework	Description	Button Text
Angular	Use Angular to quickly test your ideas with NativeScript.	Start with NS + Angular
JavaScript	Use modern JavaScript to quickly test your ideas with NativeScript.	Start with NS + JavaScript
TypeScript	Use TypeScript to quickly test your ideas with NativeScript.	Start with NS + TypeScript

QUICKLY AND EASILY TEST YOUR NATIVESCRIPT CODE

RESOURCES

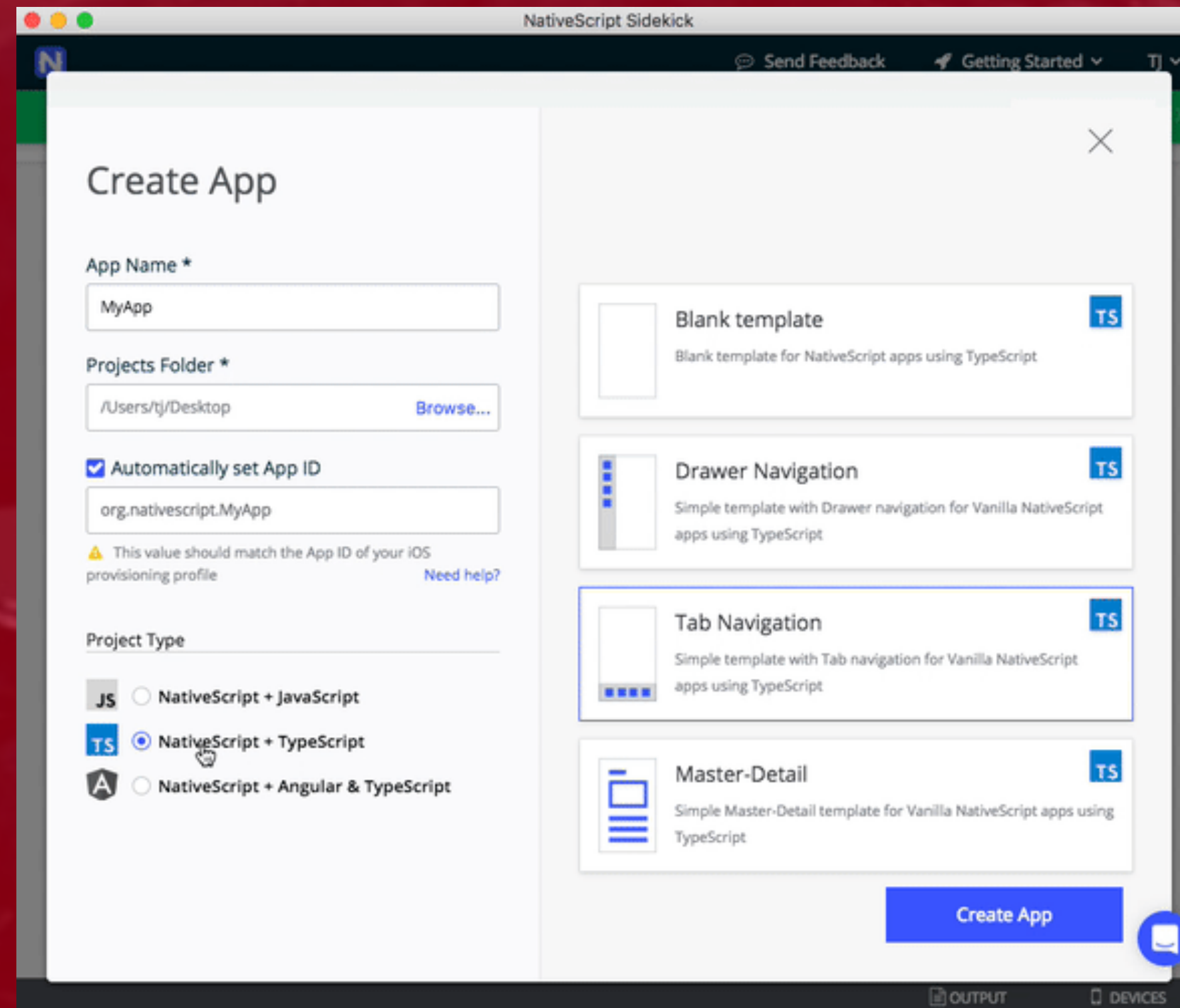
NATIVESCRIPT THEME BUILDER



LOAD AND EDIT CUSTOM COLOR SCHEMES FOR NATIVESCRIPT

RESOURCES

NATIVESCRIPT SIDEKICK



RICH STARTER TEMPLATES, VERIFIED PLUGINS, CLOUD BUILDS, AND DEBUGGING

RESOURCES

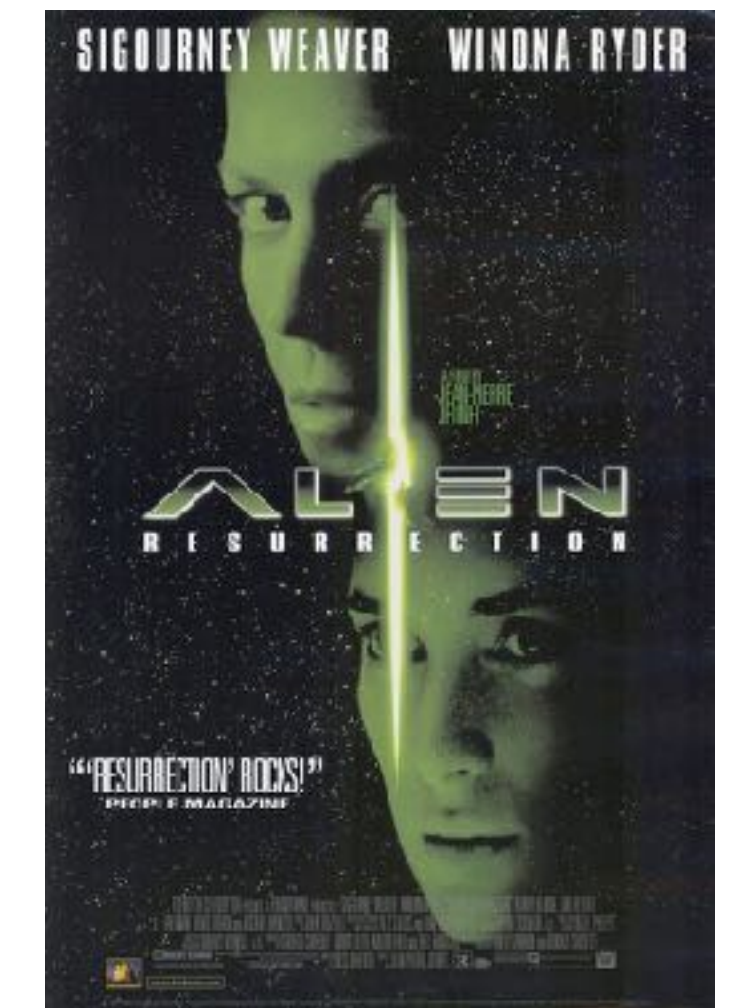
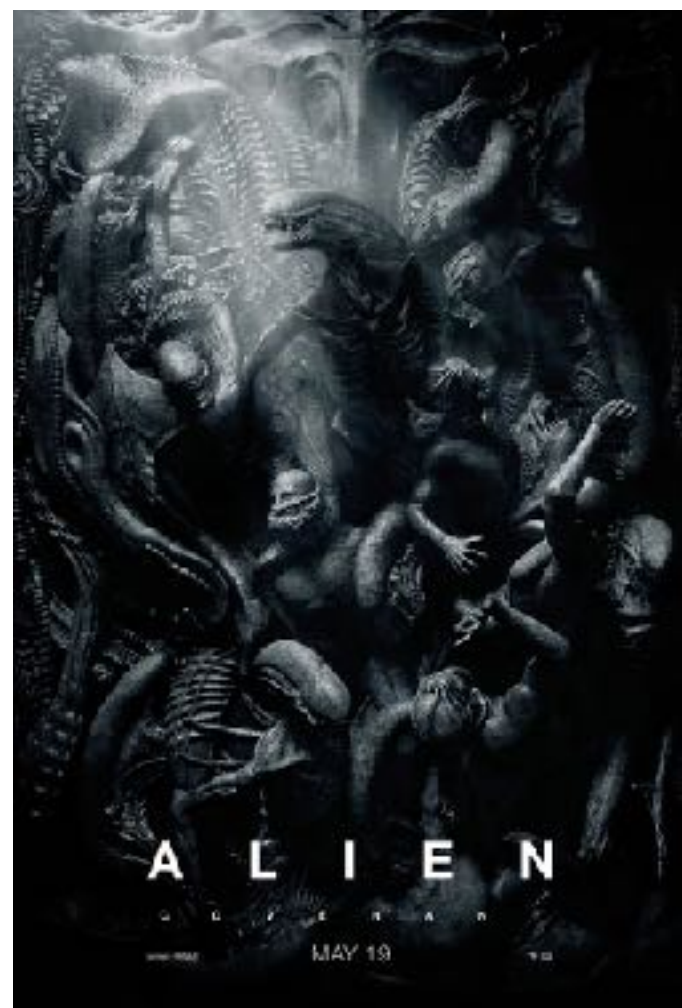
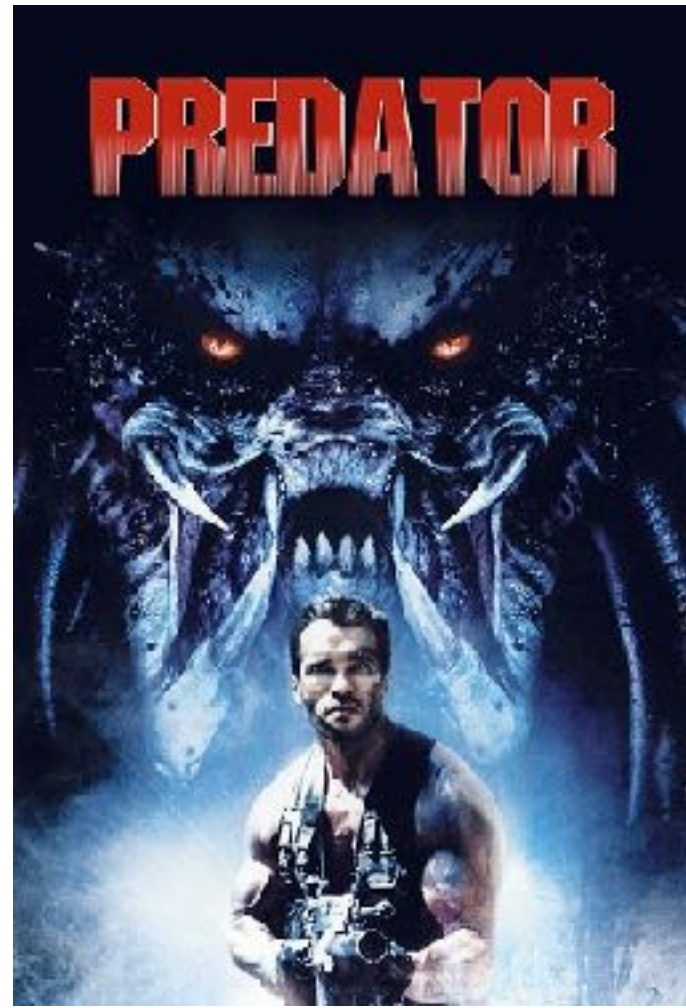
NATIVESCRIPT DOCS

NATIVESCRIPT CORE
NATIVESCRIPT WITH ANGULAR
API REFERENCE
NATIVESCRIPT SIDEKICK

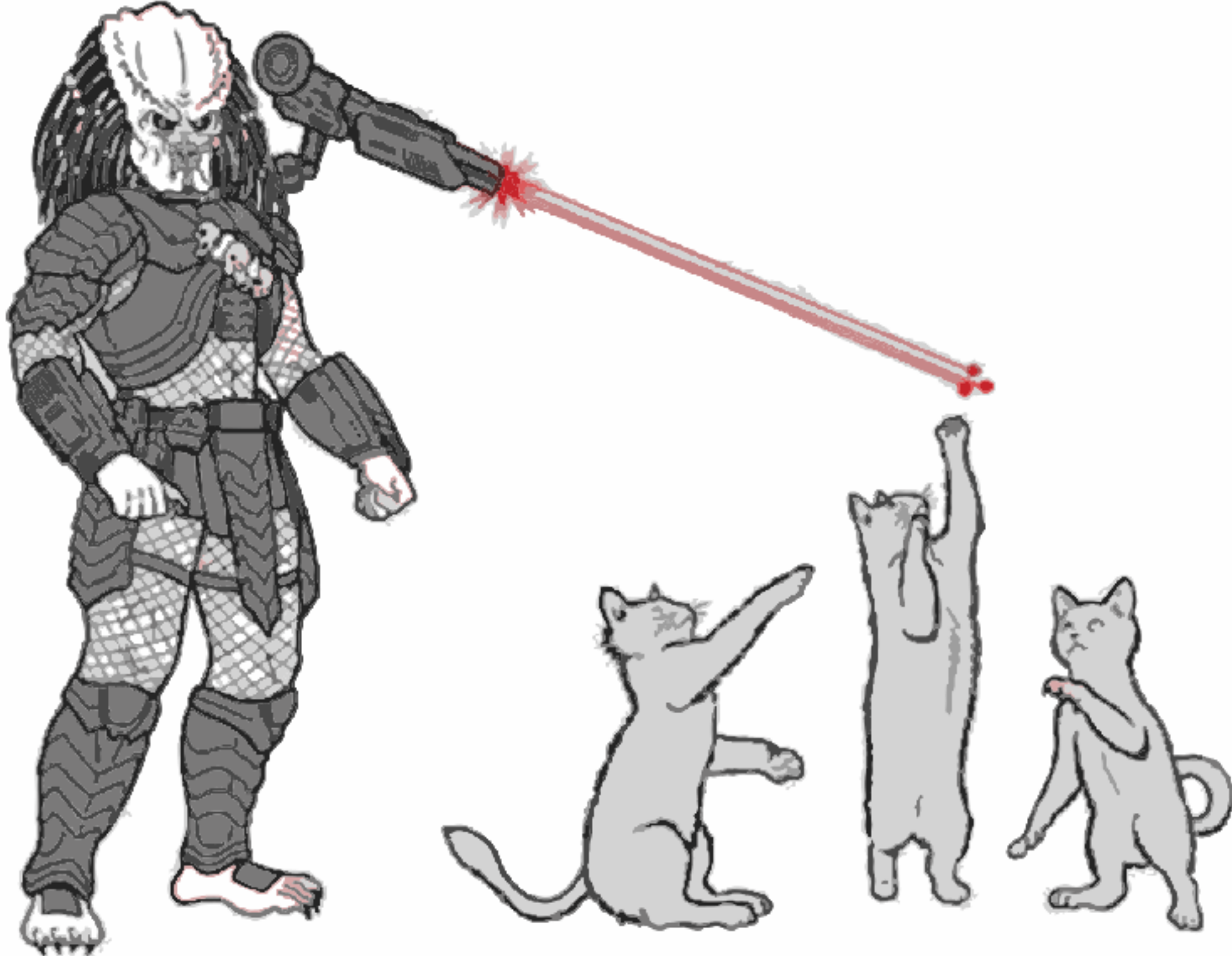
NATIVESCRIPT FORUM

NATIVESCRIPT SLACK CHANNEL

VISUAL STUDIO CODE PLUGIN



DZIĘKUJĘ CI BARDZO



PLUGINS

NATIVESCRIPT-BARCODESCANNER

EDDY VERBRUGGEN

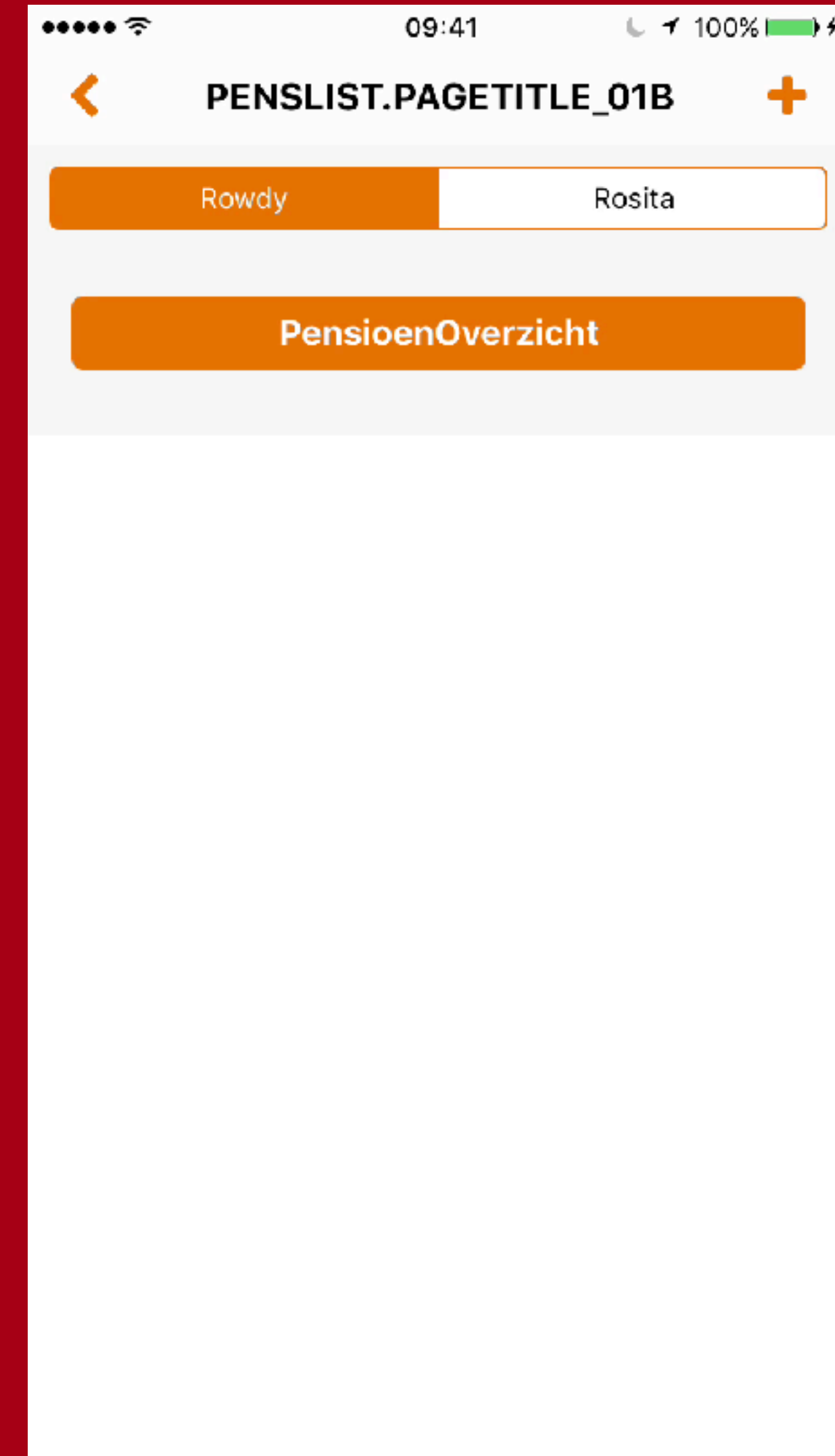
(BULK)SCAN QR OR BARCODES

NATIVESCRIPT-TOAST

TOBIAS HENNIG

CONTRIBUTIONS BY EDDY VERBRUGGEN

FEEDBACK IN A SMALL POPUP



PLUGINS

NATIVESCRIPT-APPVERSION

EDDY VERBRUGGEN

RETRIEVE YOUR APP'S PACKAGE ID AND CURRENT VERSION

PLUGINS

NATIVESCRIPT-EMAIL

EDDY VERBRUGGEN

CREATING DRAFT E-MAILS

PLUGINS

NATIVESCRIPT-PLUGIN-FIREBASE

EDDY VERBRUGGEN

ANALYTICS

PLUGINS

NATIVESCRIPT-TELERIK-UI
PROGRESS
LISTVIEW AND SIDEDRAWER

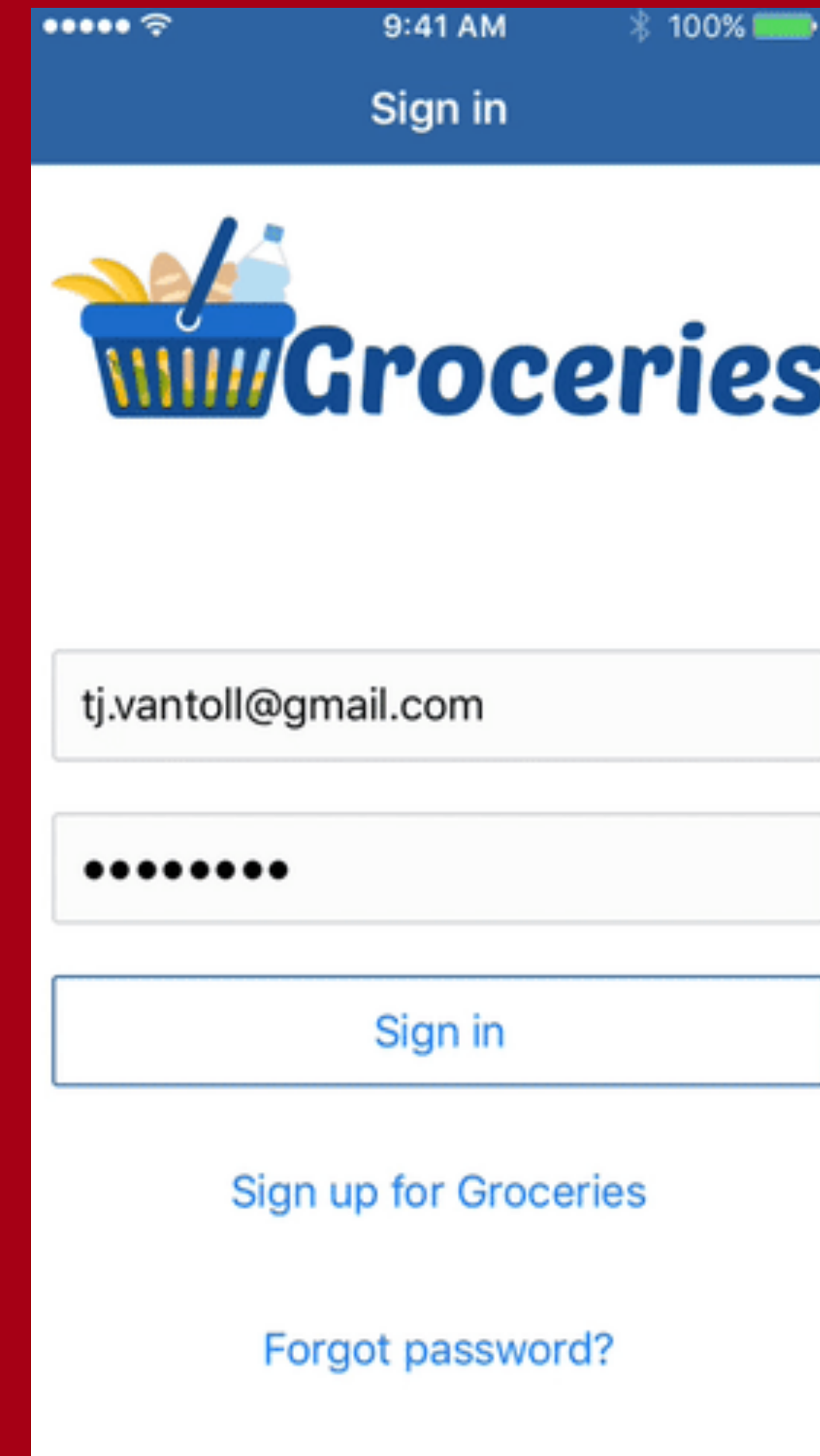
PLUGINS

NATIVESCRIPT-IQKEYBOARDMANAGER

TJ VANTOLL

CONTRIBUTIONS BY EDDY VERBRUGGEN

WRAPPER FOR THE POPULAR IQKEYBOARDMANAGER
IOS FRAMEWORK



PLUGINS

CRYPTO-JS

EVAN VOSBERG

CRYPTOGRAPHY STANDARDS

PLUGINS

LODASH

LODASH

TAKING THE HASSLE OUT OF WORKING WITH ARRAYS, OBJECTS, STRINGS, ETC