By

Telerik®
A PROGRESS COMPANY

Let's talk NativeScript

This changes everything!

So you want to build a Mobile App?

Your zen is lost quickly ..



Too many platforms

Too many pitfalls with Native or Hybrid Apps

Confused Developer = Sad Panda!

So why NativeScript? {N}

Truly Native Apps with JavaScript

Wait .. What?

- Native iOS / Andoid / Windows Phone* Apps
- Built with JavaScript + CSS + XML
- Single Code Base

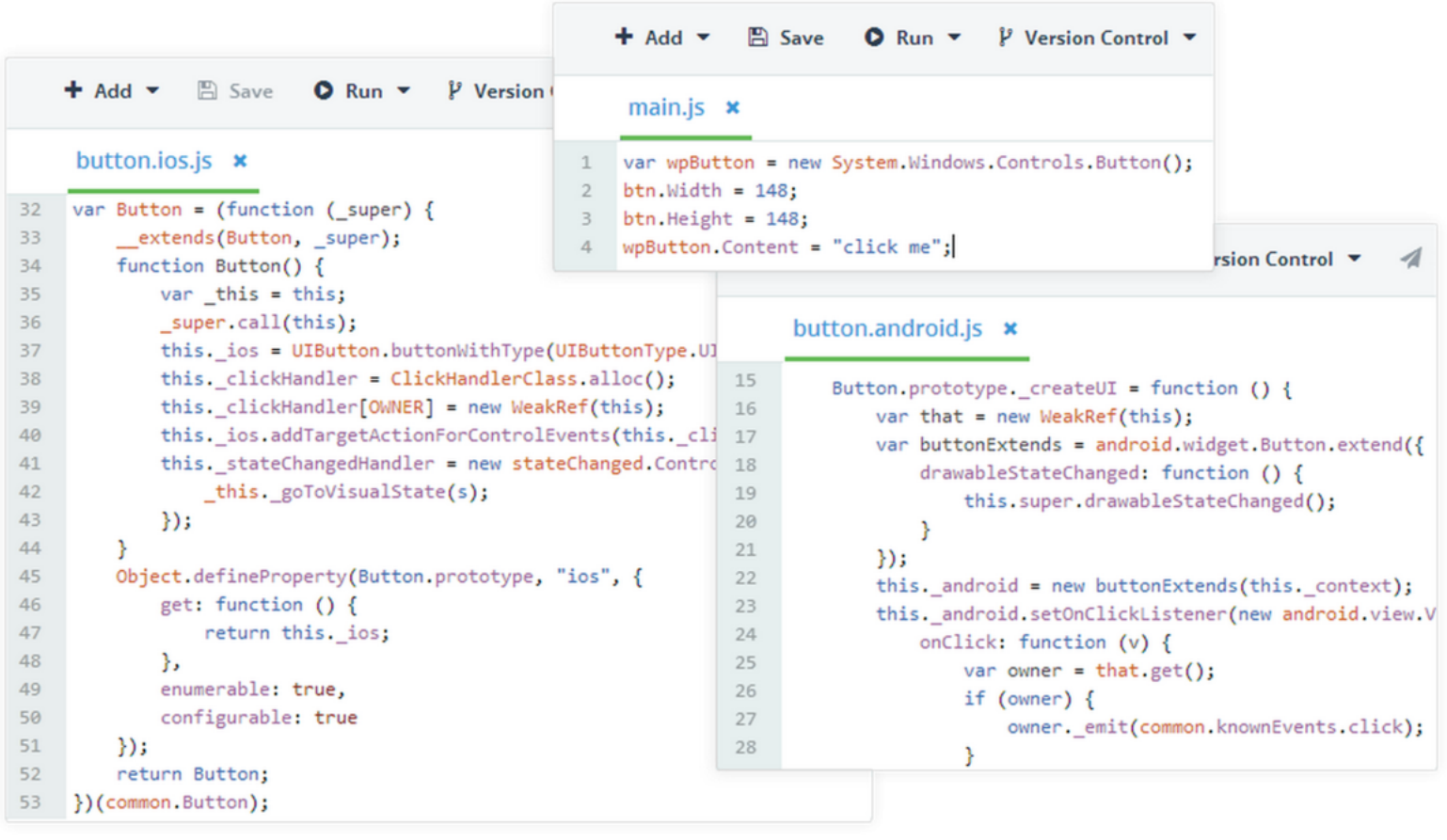
You're Welcome!

*Coming Soon

Tell me more ..

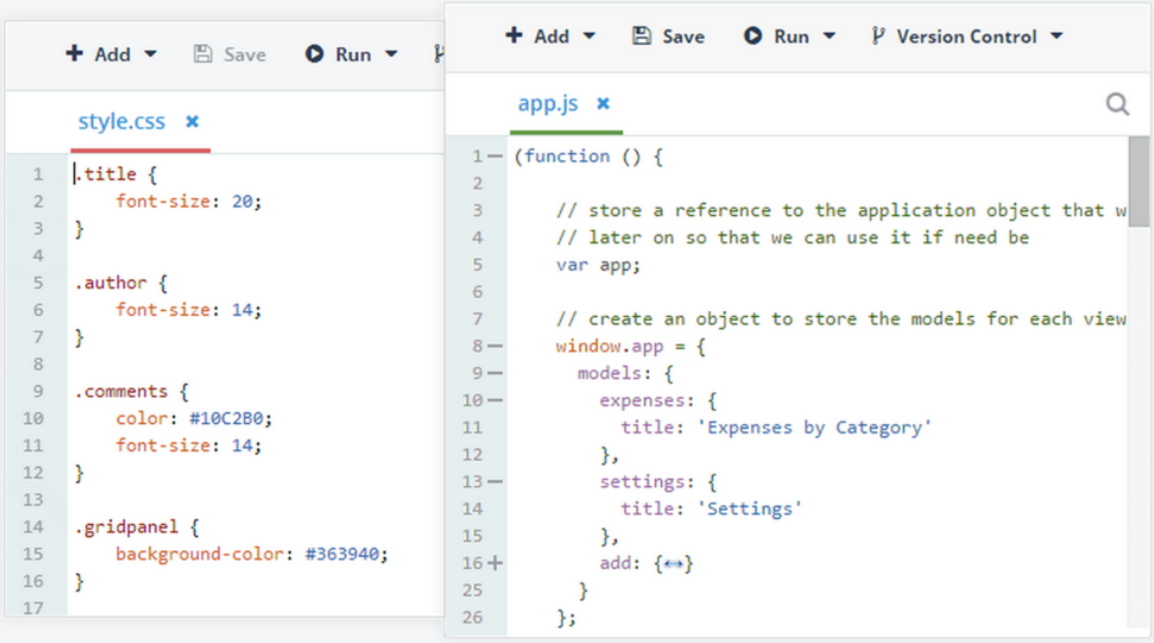
100% Access to Native Platform API

The entire native platform functionality is available in the JavaScript layer



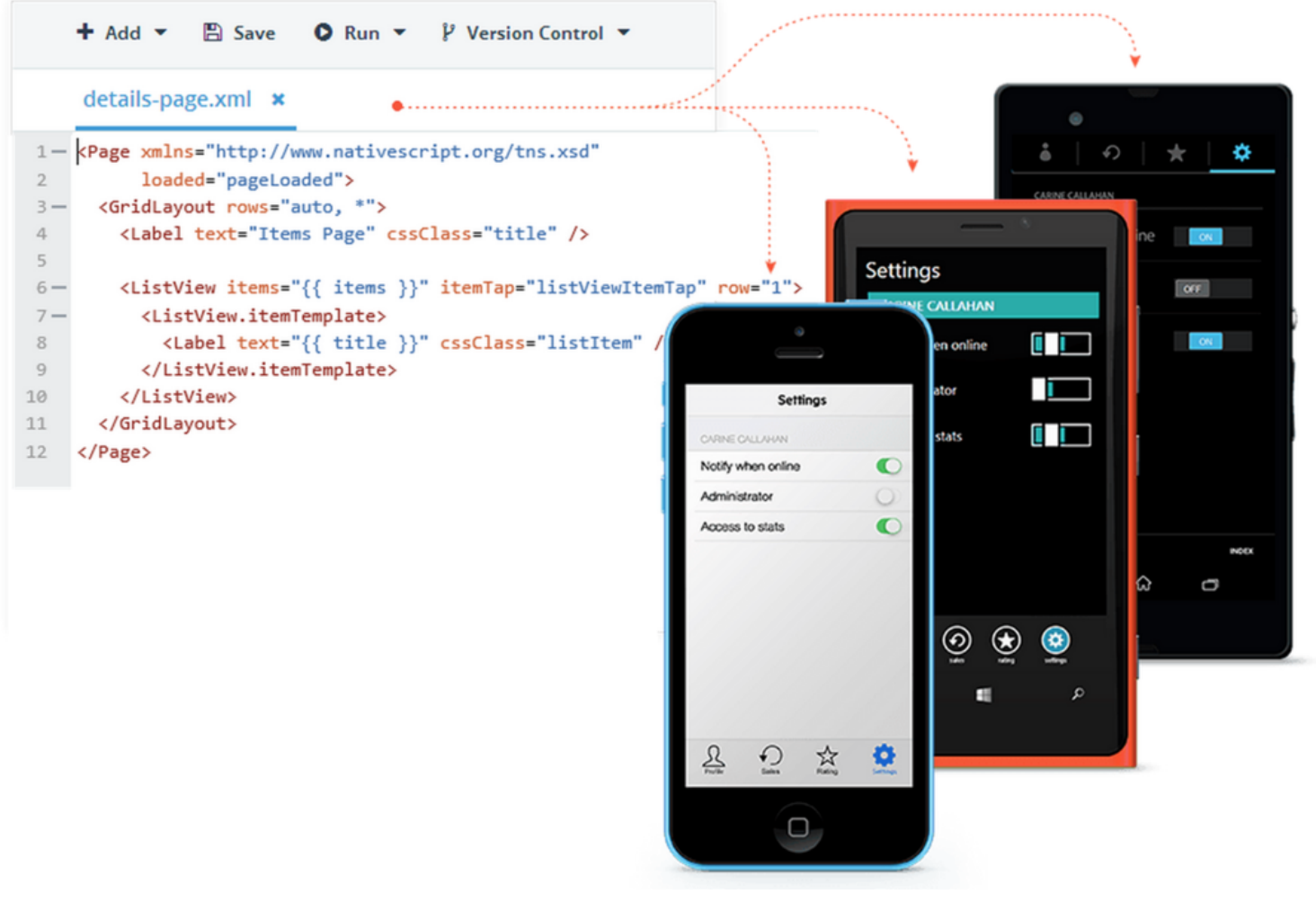
Standard-based ECMAScript5+ JavaScript and CSS

No need for rocket science, use your existing skills to build native apps



100% Code Sharing

iOS, Android and Windows Phone apps from a single code base



Use The Hardware You Already Have

With the existing tools you already have

This is mind blowing ..

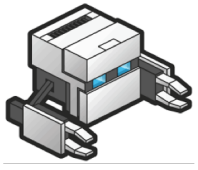
Yeah, it's careful orchestration.

Let's unpack the Magic!

How is this working?

{N} is built from ground up

No DOM



No Cross-Compilation

No Plugins Required

{N} is straight-up JS | Running as Native App

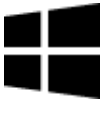
Under the hood

{N} works over an abstraction - a very smart one

Runs JavaScript in a Virtual Machine

JavaScriptCore VM on iOS

V8 VM on Android



JavaScriptCore* VM on Windows Phone

*Tentative

You write JavaScript

{N} utilizes a bridge

Has full access to Native APIs

- That's all of iOS + Android APIs!

Uses Reflection to look up Native APIs

List of APIs for each Platform

Metadata pre-generated

Injected into App package @ Build time

Plug & Play?

{N} is very flexible

Allows reuse of skills & assets

Use native libraries for each platform

Use JS libraries without DOM dependency

Shared UI styles through CSS

Full TypeScript Support

Think I'm sold .. where to start?

{N} gives you flexibility

You get 2 ways to start and choice of IDEs!

We LOVE Open Source

Choice #1: {N} is OSS on GitHub

Start @ https://www.nativescript.org/

Check out | Use it | Fork it

https://github.com/NativeScript/NativeScript

Yep, it's completely FREE .. there is no catch!

How do I start?

{N} Command Line Interface makes it easy

Grab the NativeScript CLI:

```
npm install -g nativescript
```

Create Project & Add Platforms:

```
tns create MyApp
tns platform add android
```

Run Project on Device or Emulator:

```
tns run android
tns run android --emulator
```

Choice of IDE?

{N} aims to give you flexibility

Sublime Text | With complete Workflow

VS Code | Best for TypeScript

Most other JS/CSS text editors

Use Telerik Platform

Choice #2: {N} is best with Telerik AppBuilder

- Start @ http://platform.telerik.com!

Complete end-to-end Mobile developer Platform!

What's in Telerik Platform?

Everything you need to build a Mobile app

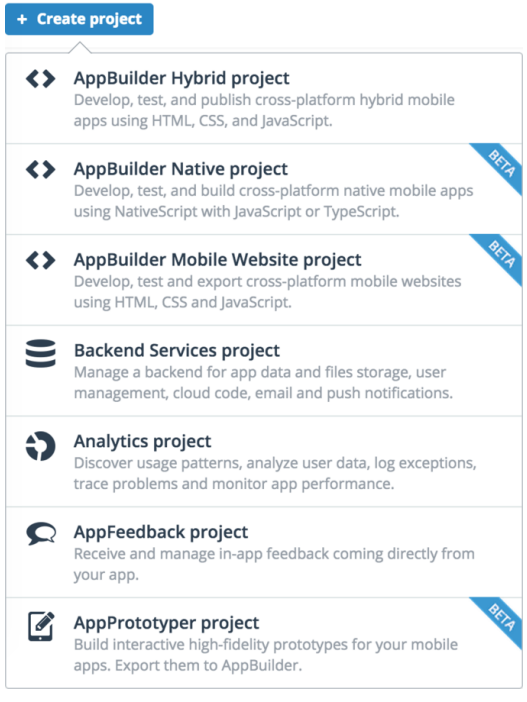
1. AppPrototyper
2. AppBuilder
3. Backend Services
4. Mobile Testing
5. AppManager
6. AppFeedback
7. Analytics
8. Modulus

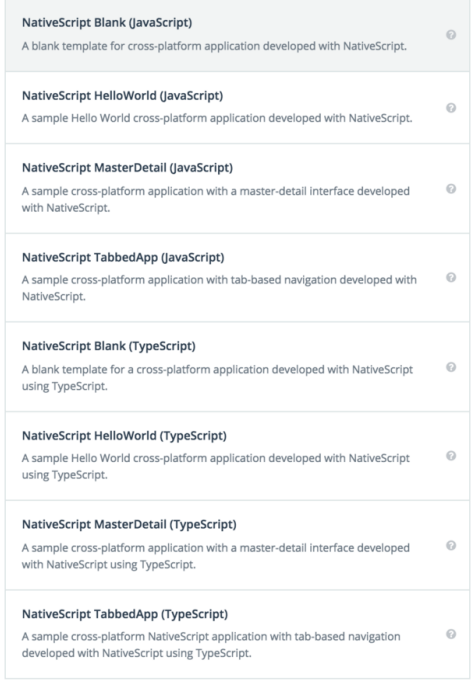
You'll love AppBuilder with {N}

All the pieces nicely wrapped up in one Platform!

{N} in AppBuilder

Think of it as a friend with benefits

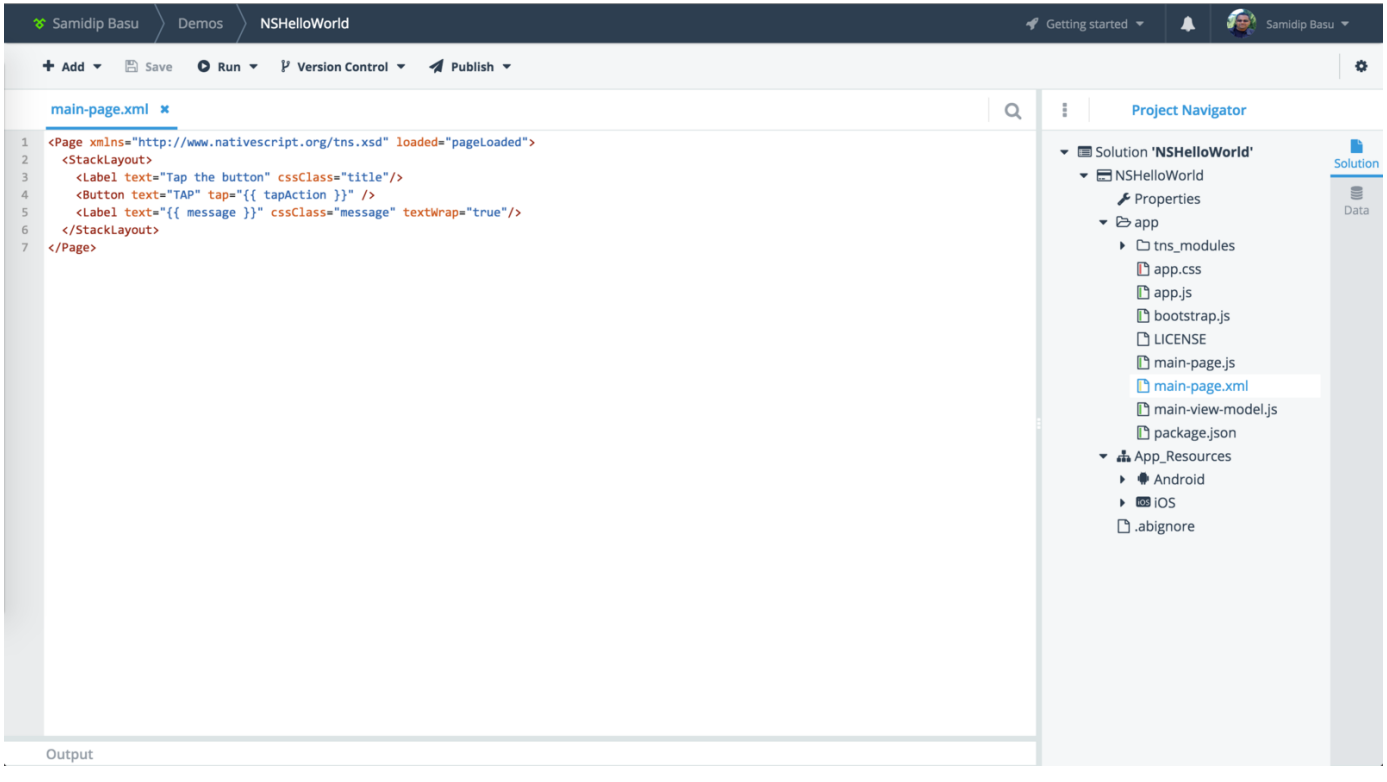




You gain Project Templates, Cloud Builds, Debugging & much more ..

{N} Dev in a Browser

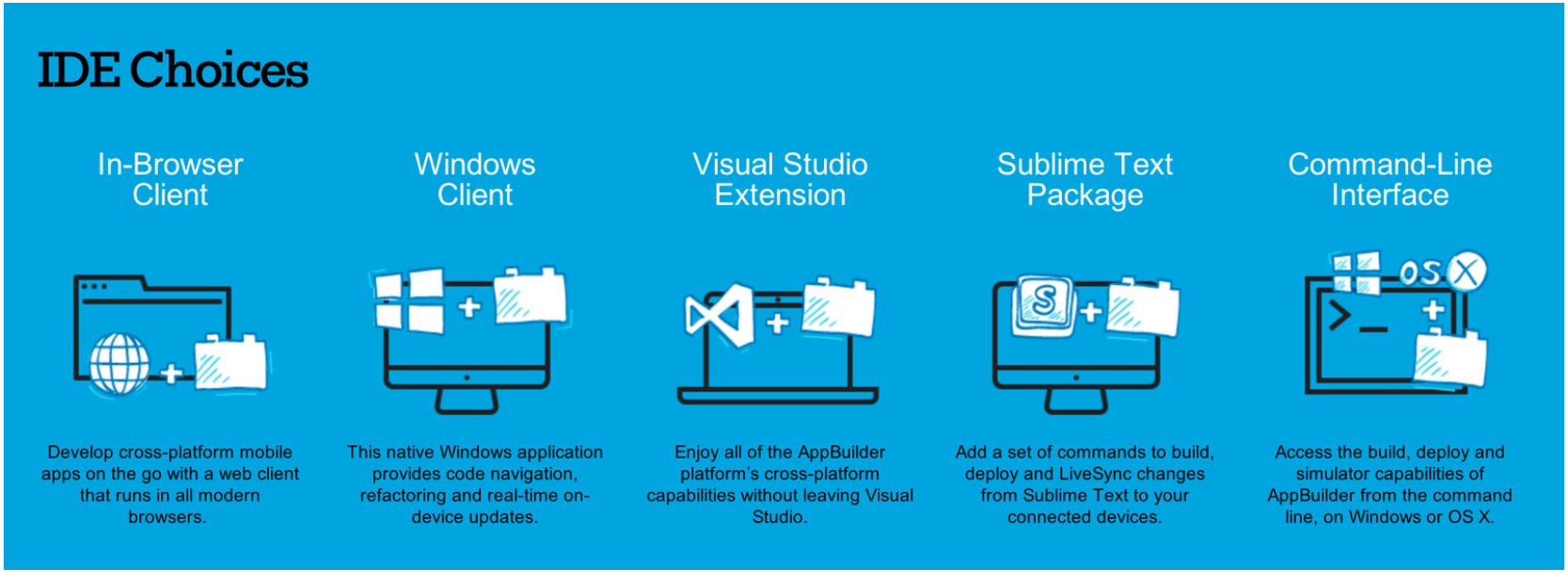
AppBuilder In-Browser Client is rather powerful



Of course, this isn't the only option .. pick your IDE!

Telerik AppBuilder IDEs

{N} truly shines in Developer flexibility



Any Platform to suit your Mobile dev needs!

What about UI Composition?

Yes XML - it's Shared & X-Platform!

Think of it as lowest common denominator

Show me some UI

{N} uses XAML-like XML

```
<Image source="{thumbnailImageSource}" width="72" height="72"/>
<Label text="{itemTitle}" textWrap="true" cssClass="title" />
<Button text="{authoredBy}“ width="150“ cssClass="author"/>
```

You build a Visual Tree

Just like XAML/HTML

You get UI elements & Container controls

These become Native UI .. little Magical!

Is the UI smart?

{N} supports Rich DataBinding

```
<Image source="{thumbnailImageSource}"
       width="72"
       height="72"
       verticalAlignment="top"/>

<Label text="{{ num_comments ? num_comments + ' comments' : '' }}" />
```

XAML-like Data Binding

Off course .. it's 2-Way

Renders Adaptively for each platform

Data Binding powered by Polymer Expressions!

How do I style the UI?

{N} uses the ubiquitous CSS .. hallelujah

```
<Page loaded="load">
   <Label text="{{ message }}" />
</Page>

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

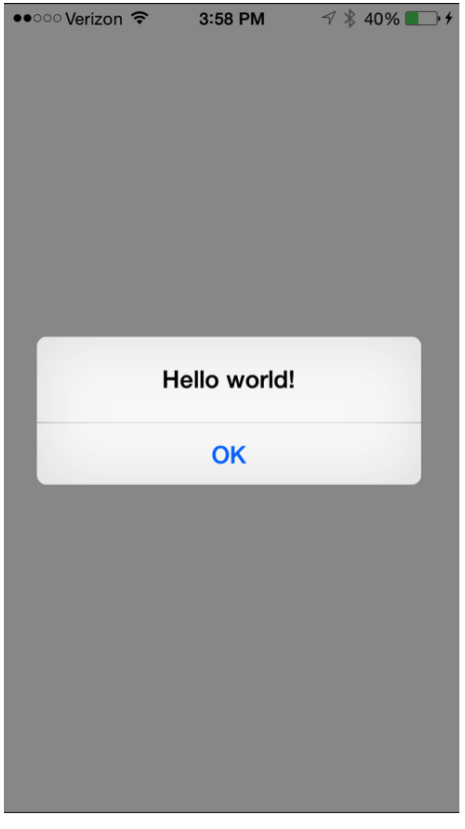
Yep - CSS to style Mobile App elements!

We know you're a CSS ninja .. now use it.

Can I invoke Native UI?

{N} supports Native UI element instatiation

```
var alert = new UIAlertView();
alert.message = "Hello World";
alert.addButtonWithTitle("OK");
alert.show();
```



Native UI

Invoked through JS!

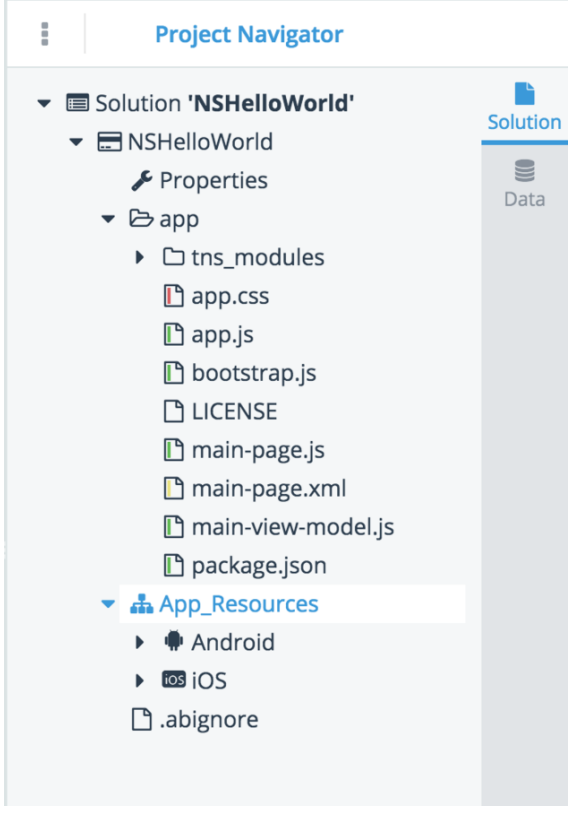
What makes up a {N} Project?

You're asking all the right questions ..

Combination of UI, Logic, Styling & Modules!

A Typical {N} Project

All your components in one place

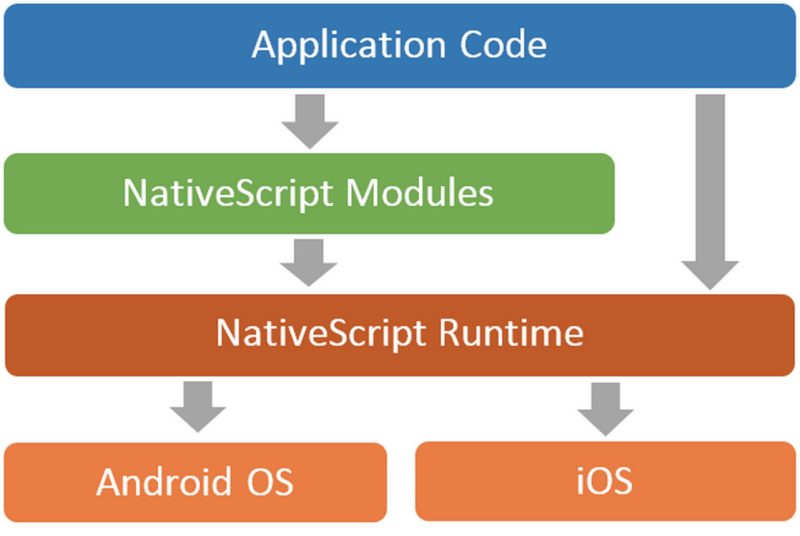



```
.
└── name-of-app
    ├── app
    │   ├── app
    │   │   ├── app.css          <-- app styling
    │   │   ├── app.js           <-- app starting point
    │   │   ├── main-page.css
    │   │   ├── main-page.js
    │   │   ├── main-page.xml
    │   │   └── node_modules     <-- npm modules
    │   │       └── ...
    │   ├── App_Resources        <-- icons, splash screens, config files
    │   │   └── ...
    │   └── tns_modules          <-- NativeScript modules
    │       └── ...
    └── platforms
        ├── android
        └── ios
```

They say a picture is worth a 1000 words ..

What's a Module?

{N} bridge that takes functionality X-Platform



- Just like a Node module
- Dozens available | You can write custom modules

Show a Module in action

{N} allows you to bring in what's needed

```
var http = require("http");
http.getJSON("https://api.myservice.com")
    .then(function(result){
          // result is a JSON object
          // do stuff
         });
```

- This is a generic HTTP Module
- Works the same way in each Platform

Module to Native

{N} does the mapping .. so you don't have to

```
var fileSystem = require("file-system");
new fileSystem.File(somePath);
```

 Translates this as ..

```
new java.io.File(somePath);
```

 Translates this as ..

```
NSFileManager.defaultManager();
fileManager.createFileAtPathContentsAttributes(somePath);
```

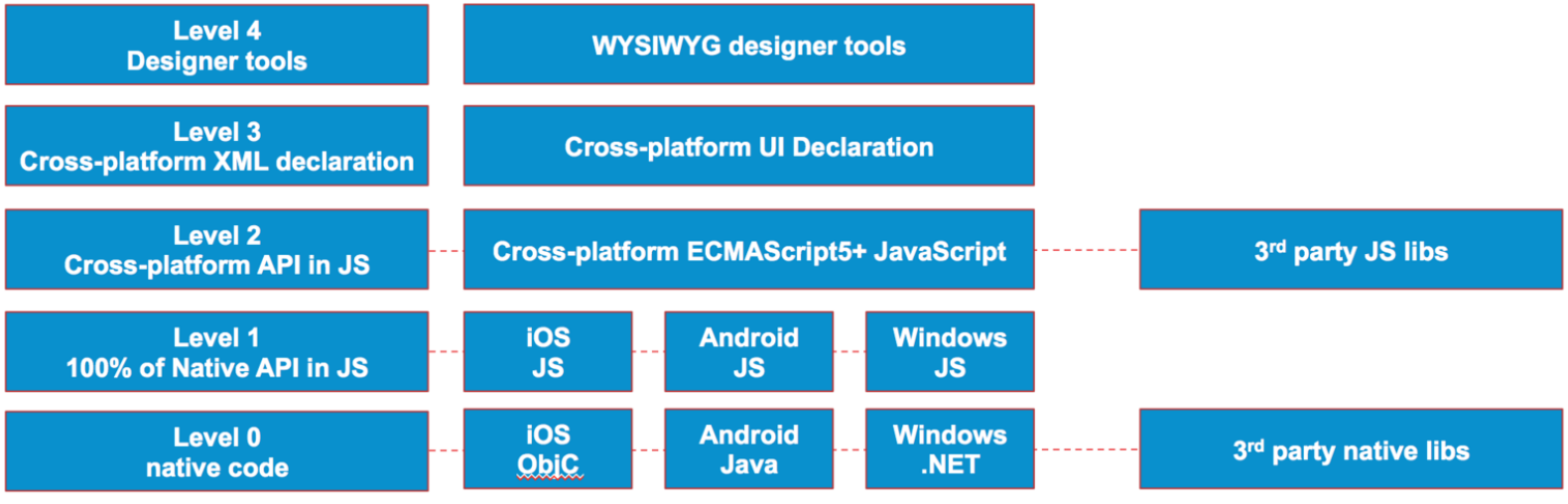
You had me at Native with JS!

Yeah, we're just as excited.

There is a lot we covered though ..

Gimme a 10K Feet View

Here you go .. the layers of {N} magic!



{N} also sports integrated support with Angular 2!

Reuse your Web & TypeScript skills ..

Why {N} again?

Reasons You'll Love it

Truly Native UX

Create the performance and experience of a truly native app with a fraction of the development effort.

Use 3rd Party JavaScript Libraries

Reuse all the available JavaScript libraries that do not have browser or other platform dependencies.

Same day support for new platforms

Get same day support for the latest updates to the native platforms.

XML UI declaration

Declare app UI in simple, easy to read cross-platform XML-based format.

Open Source

The NativeScript framework is open source under the Apache 2.0 license and the source code is available on GitHub.

Rich data-binding

Use data binding in the XML declaration with powerful data binding syntax engine.

You're a Mobile Ninja

{N} is here to help!

Feel the Native Zen

Tooling that elevates X-Plat Mobile

Getting Started

{N} with Telerik Platform

App Showcase

Solid Docs | Forums

Contribute Back

Go build your dream app!

By

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Native X-Platform Mobile with JS

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