

Cross platform development with NativeScript

...

corkdev.io 29th March

About me

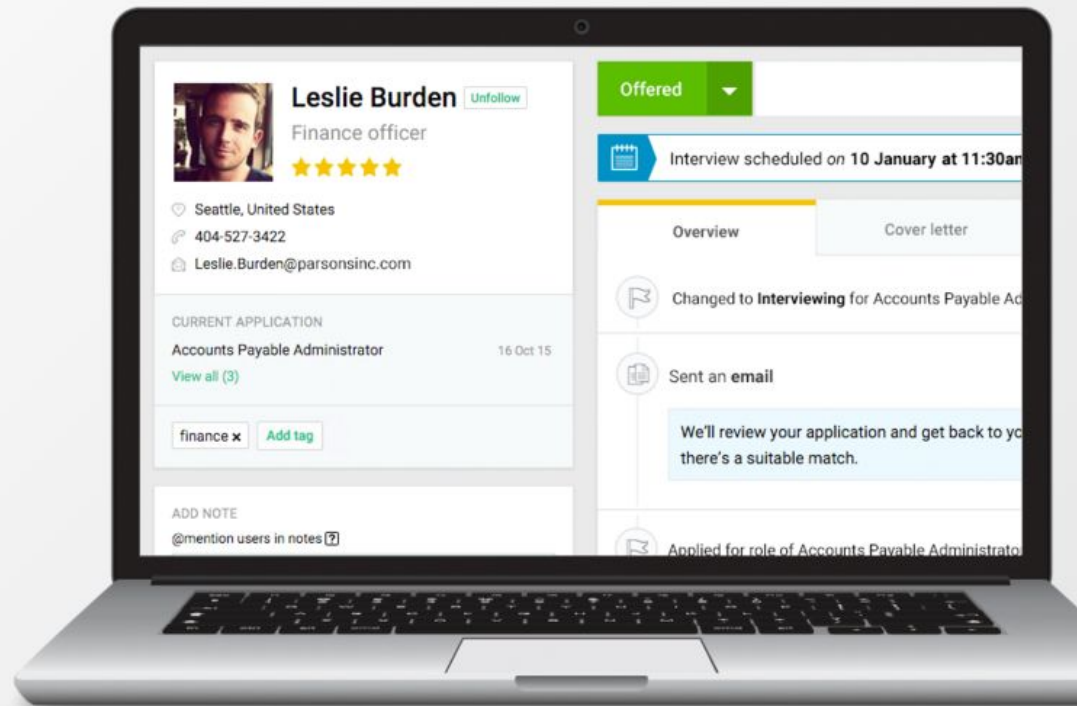
- Noel O'Connell
- CTO/Fullstack Developer at HireHive
- C#, SQL, JS, AngularJs, WebAPI, HTML, CSS, SignalR, NativeScript
- @noel_o_c

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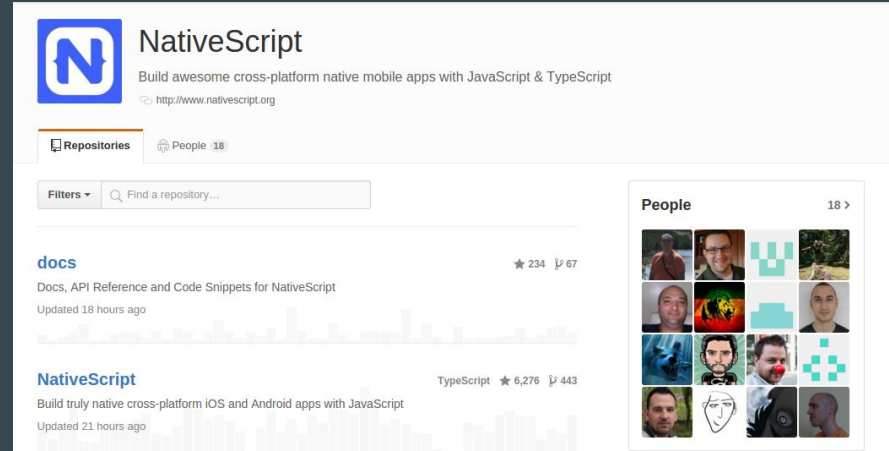
What is NativeScript?

A runtime for building and running native iOS and Android apps with a single, JavaScript code base



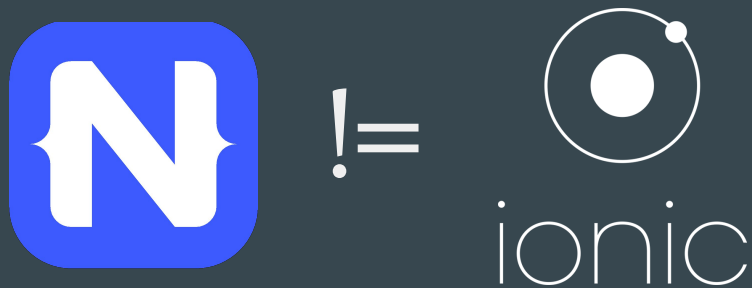
Free and open source!

- 6k + Github stars
- Apache 2 license
- Backed by Telerik
- Public roadmap
- Hot Reload for fast development
- Observable data binding
- iOS 7.1 or later
- Android 4.2 or later
- Android N Support



Not PhoneGap/Ionic

- Real Native Components
- No DOM to manipulate
- Not HTML elements styled like native components



Not Xamarin

- No Cross Compiling
- 100% access to native APIs without writing bindings
- No .Net



Not React Native

- No writing ObjectiveC, Swift or Java
- {n} Javascript has 100% access to native APIs
- Windows development friendly



Choice in Architecture

Javascript

Write your application
using plain Javascript



TypeScript

Use TypeScript to get
Object Oriented features
and compile time error
checking



Angular2

Use Angular to architect
application. Reuse
almost all code between
web and mobile



2.0 NOW IN BETA!

Choice in Styling



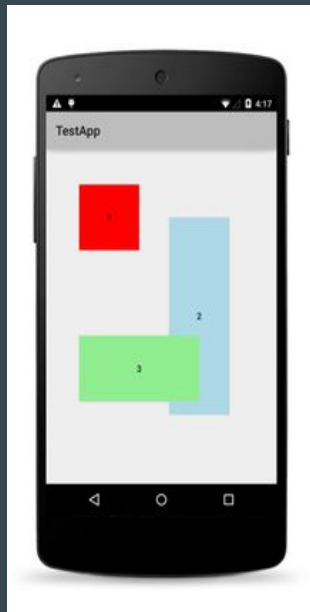
How to use

```
$ tns install sass
```

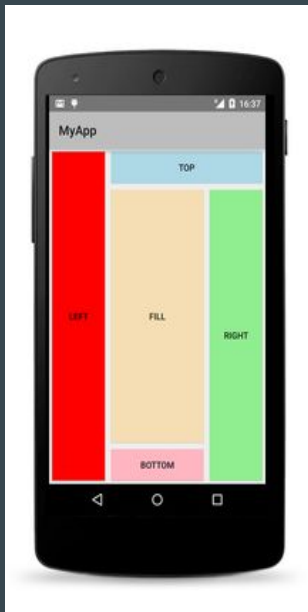
```
$ tns install less
```

Native Layouts

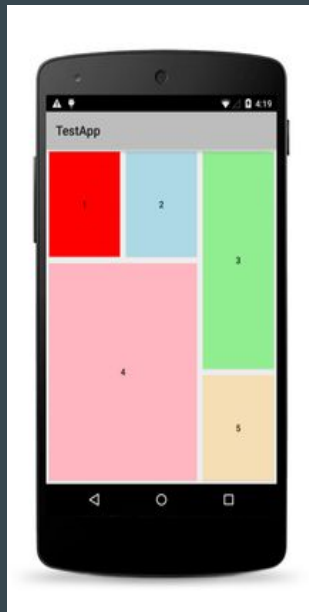
Absolute



Dock



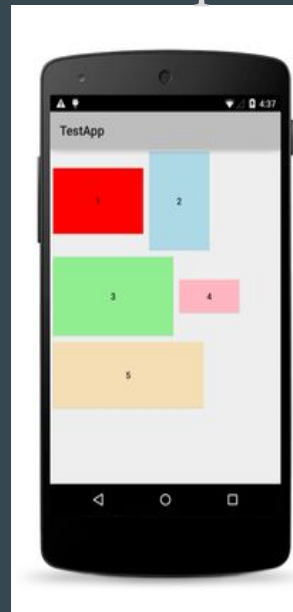
Grid



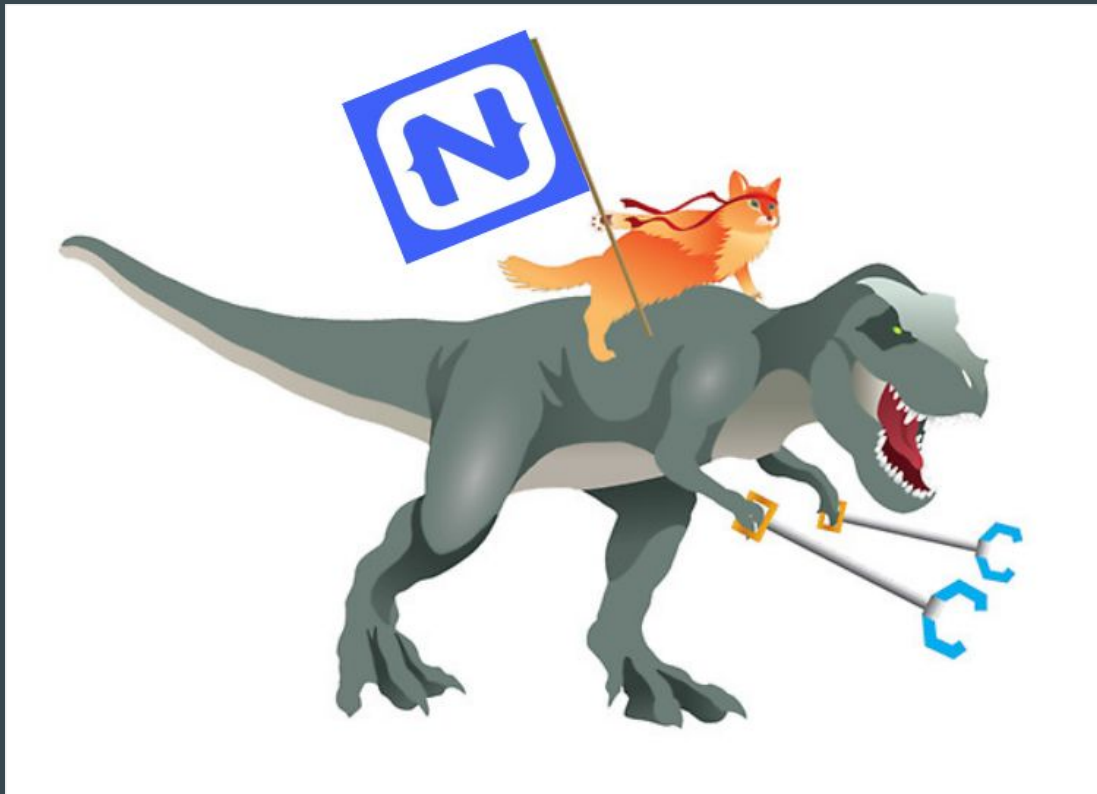
Stack



Wrap



Direct access to native APIs



Direct access to native APIs

JavaScript can create and use Native Android Java objects!

```
4  
5   var time = new android.text.format.Time();  
6  
7   time.set(1, 0, 2016);  
8  
9   console.log(time.format("%D"));  
10
```

Direct access to native APIs

JavaScript can create and use Obj-C objects too!

```
12
13  var alert = new UIAlertView();
14
15  alert.message = "Hello World";
16
17  alert.addWithTitle("OK");
18
19  alert.show();
20
```

But I don't want to write iOS and Android Code



NativeScript modules

Code



Modules



Platform API



NativeScript file module



```
1  
2  var fileSystemModule = require('file-system');  
3  
4  new fileSystemModule.File('my-file-path');  
5
```



```
7  
8  new java.io.File('my-file-path');  
9
```



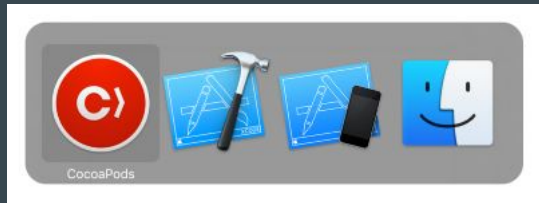
```
11  
12  NSFileManager defaultManager();  
13  
14  fileManager.createFileAtPathContentsAttributes('my-file-path');  
15
```

HTTP Module Example

```
36
37  var http = require('http');
38
39  http.getJSON('https://api.myservice.com')
40    .then(function(result){
41      // result is a JSON object
42      console.log(result);
43    });
44
```

Use Lots of Prebuilt code

- Use thousands of plugins from NPM
- Use free native controls from CocoaPods or Android Arsenal



**ANDROID
ARSENAL**



EXPLORER

WORKING FILES

MYPROJECT

app

App_Resources

views

demo1

demo1.css

demo1.js

demo1.xml

demo2

demo3

demo4

app.css

app.js

package.json

references.d.ts

node_modules

nativescript-pulltorefresh

tns-core-modules

application

application-common.js

application.android.js

application.d.ts

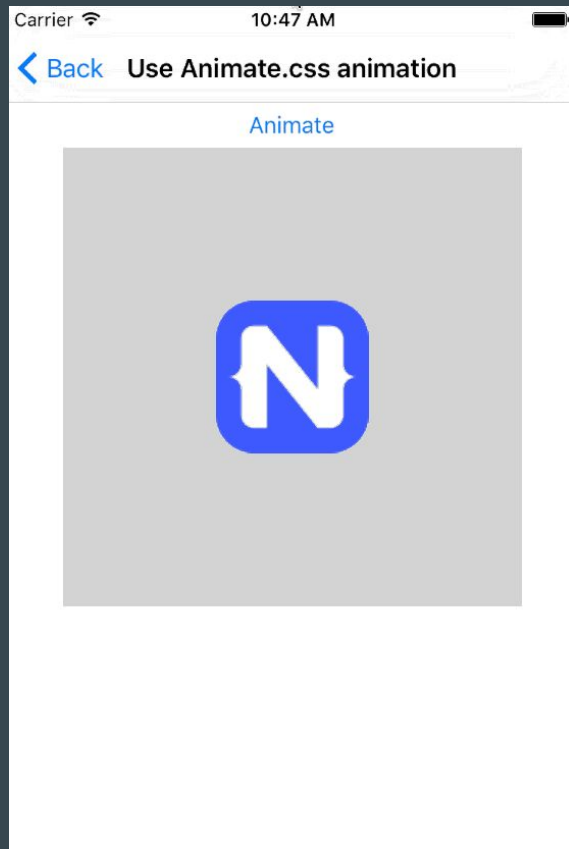
app.js app

```
1  var application = require("application");
2  application.start({ moduleName: "views/demo1/demo1" });
3
4
5
6  if (application.android){
7      console.log("We are running on an Android device!");
8  }
9  else if (app.ios){
10     console.log("We are running on an iOS device!");
11 }
```

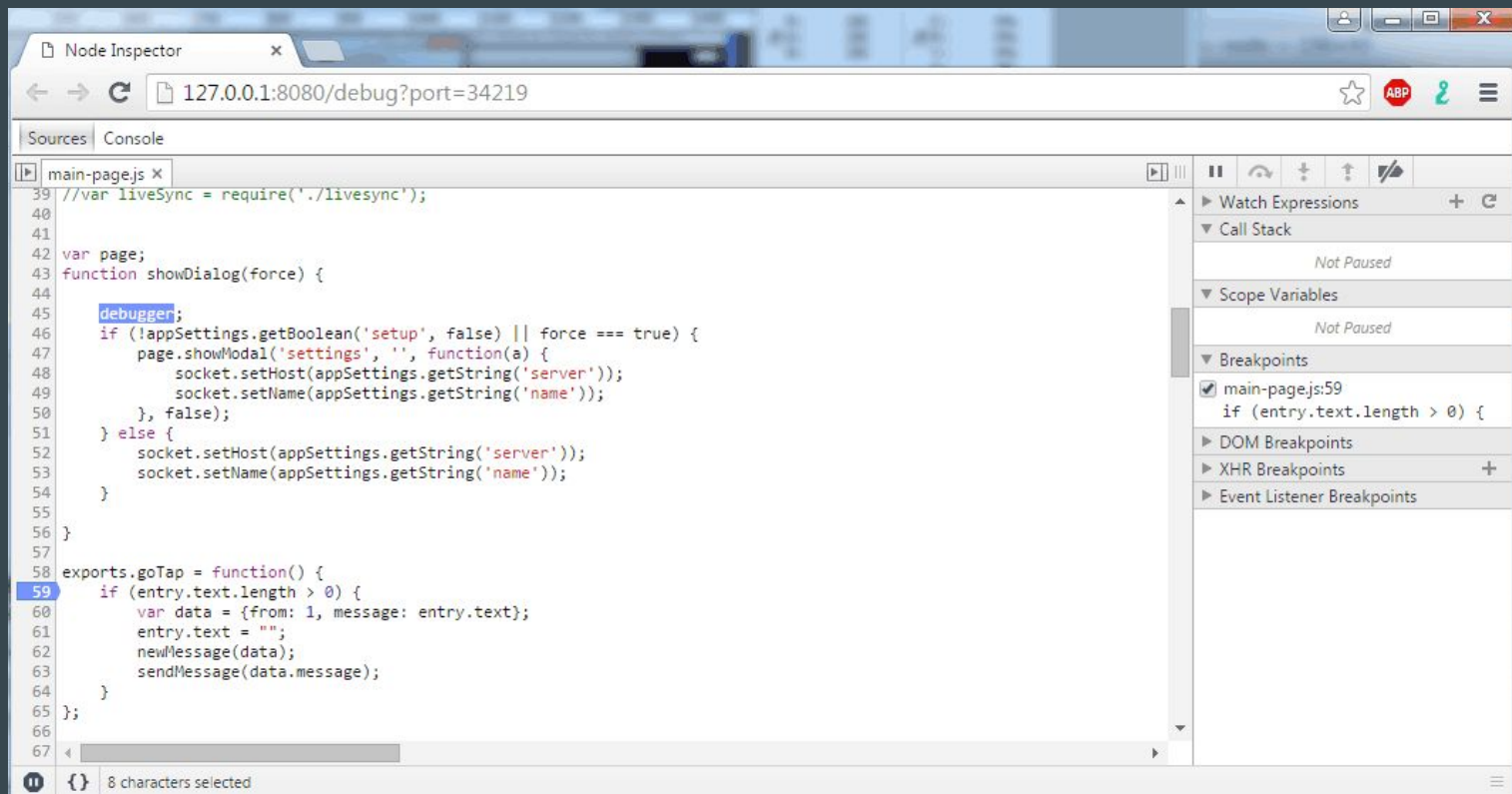


CSS animations

```
64
65 @import: "~/css/animate.css"
66 .animation {
67     animation-name: wobble;
68     animation-duration: 3s;
69 }
70
```



Debugging



Demos

