

Learning Angular 2 to Build Office Add-ins

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Agenda

Overview of Office Add-Ins

State of Angular: ng 1 & ng 2

Overview of Angular 2

Developing with Angular 2

Overview of Office Add-Ins

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Introduction to Office Add-ins

Office clients can host different add-in types:

- Task Pane & Content: Word, Excel & PowerPoint
- Read / Compose: Outlook (mail & calendar)

Supported in most client versions

- Windows - Office 2013 & 2016
- Office Online (Web)
- OSX
- iOS (iPad & iPhone)
- Android

<http://dev.office.com/add-in-availability>

How do Office Add-ins work?

Create self-hosted web application

Create manifest file (XML) that defines the add-in metadata, permissions, URLs, etc

Install add-in to Office client via Office Store / side load

When Office client loads, opens a pane that loads the add-in's web application

Web application loads Office.js to get context with hosting Office client app

Once add-in is installed, available wherever you use the Office client

Office Add-ins: What Do Developers Build?

Web applications in any tech, publically hosted over HTTPS

- Server-side: ASP.NET, ASP.NET Core, PHP, Ruby, Node.js, Go, etc.
- Client-side: Angular v1 / v2, Knockout, Ember.js, Aurelia, etc.

Implementation of the web application is transparent to Office client

Think about the user experience

Installable Office clients & Office Online clients have a rich, single-page app feel

Angular, & other client-side frameworks, are natural fits

State of Angular: ng 1 & ng 2
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Angular 1 (aka: ng1)

Initially released October 2010

Over time grew organically

Heavily leveraged for major properties within Google

Experienced explosive adoption growth:

- <https://www.madewithangular.com>

Current version: 1.5.6

<https://angularjs.org>

What's wrong with ng1?

Angular wasn't using the latest web tech to provide the best exp for developers & users

Not a great solution for mobile experiences

Adopted by more than just Google w/ more involvement from the rest of the world

Current implementation extended / modified over time had reached it's limits

Announced in September 2014

Represents a complete rewrite of Angular 1

Overview of Angular 2

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Angular 2 (aka: ng2)

Written 100% in TypeScript

- TypeScript not required, can author using JavaScript (ES5) or pure ES6 / ES2015

Represents a complete re-think of the framework using latest tech available

Developers write less Angular code, more pure JavaScript

Currently version: 2.0 Release Candidate

<https://angular.io>

You Should
Switch to ng2!

... or skip ng1 entirely

Because it's so much faster!!!

Significantly smaller library - v2 release candidate is 28% size of v1.5.6

Significantly faster than ng1 - v2 release candidate is 5-20x faster than v1.5.6

- Automatic lazy loading based on routes
- Automatic pre-compiled templates to JavaScript
- Angular Universal can do server-side rendering
- App code automatically moved to web workers to unblock the UX thread

Because it's easier to learn!!!

Remember all the Angular 1 directives... all 43 of them?

- *ng-app, ng-bind, ng-click, ng-if, ng-show, ng-repeat, ng-controller...*
- *ng-all-the-damn-things*

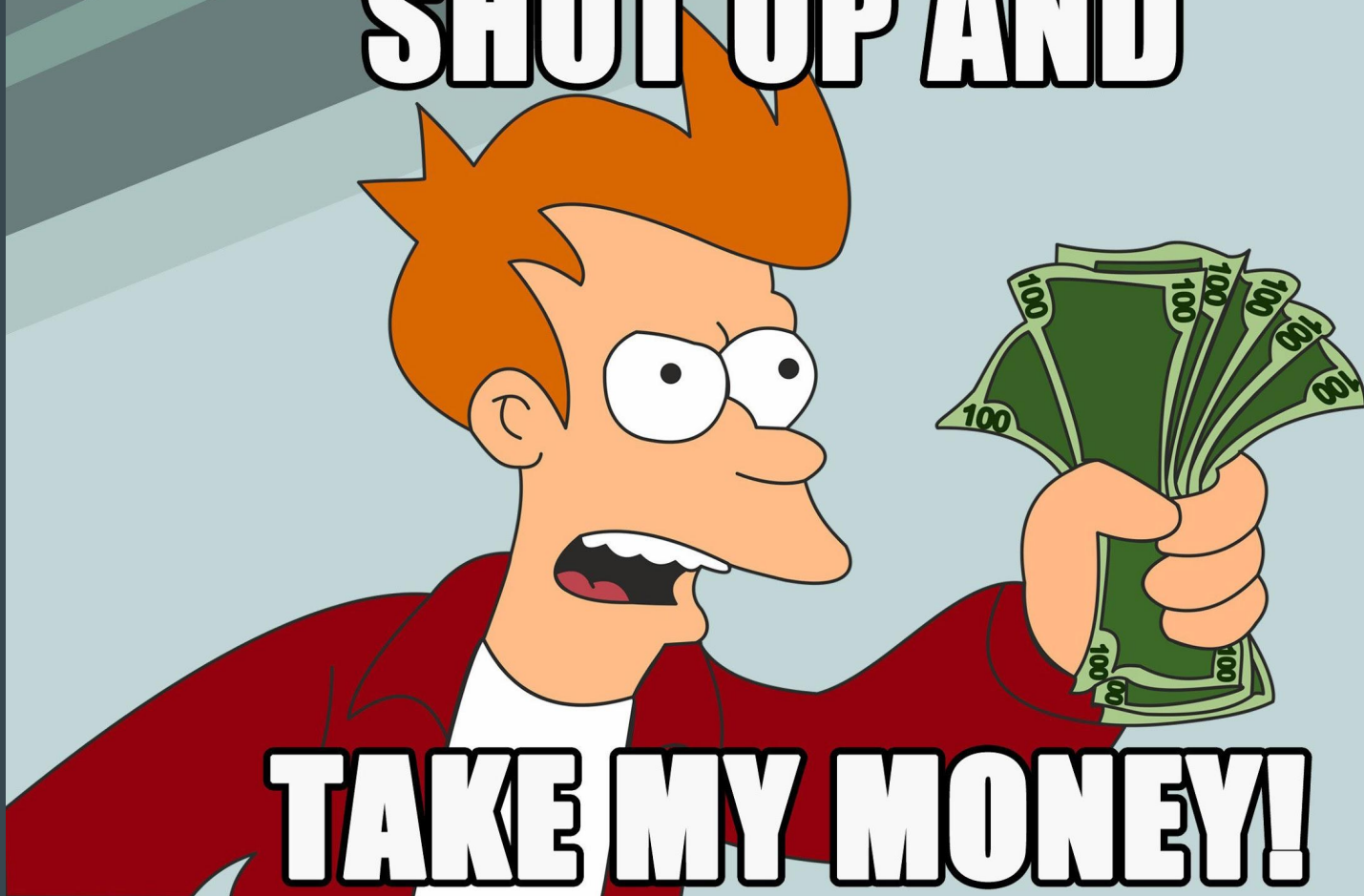
Just a handful you need to know in ng2 now ... and a new syntax:

- *ngIf, ngFor, ngModel, ngSwitch*
- *[] & ()*

Angular 2 leverages property & event binding native to the DOM

ng1 => ng2 Quick Reference: [aconn.me / ng1-to-ng2-quickref](http://aconn.me/ng1-to-ng2-quickref)

SHUT UP AND



TAKE MY MONEY!

**But wait... what's
the catch?**

New Tech, New Stuff to Learn

ng2 leverages best of today's web technology advancements

Enterprise-style JavaScript

Module loaders

Library bundlers

JavaScript decorators

Maybe TypeScript

Developing with Angular 2

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How do you get started?

Angular 2 setup is still a work-in-progress

But two great options

- Getting started template: <https://github.com/angular/quickstart>
- Angular CLI: <https://cli.angular.io>

Do the Getting Started 5 min walkthru: <https://angular.io/docs/ts/latest/quickstart.html>

Do the Tour of Heroes tutorial: <https://angular.io/docs/ts/latest/tutorial>

Webpack getting started:

- <https://angular.io/docs/ts/latest/guide/webpack.html>
- <https://github.com/gdi2290/angular2-webpack2-starter>

DEMO

Questions?

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slides & code:

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