

# **add types reduce bugs**

**Transition from Javascript  
to TypeScript**

## introduction

### first lines

break

### angular intro

### angular + typescript

break

### transition to TypeScript

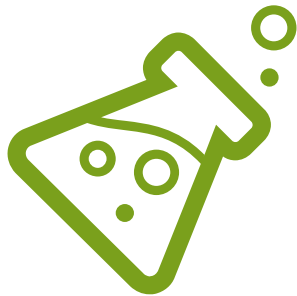


**Will TypeScript make my life better or easier?**

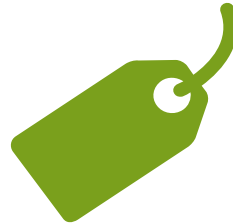
**How can convince my manager that it really will?**

**How do I start using it?**

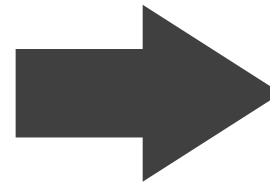
**How can I move my app to TypeScript?**



**nice features**



**static types**





Google

## bugs found during compilation

no time waste on  
testing and debugging

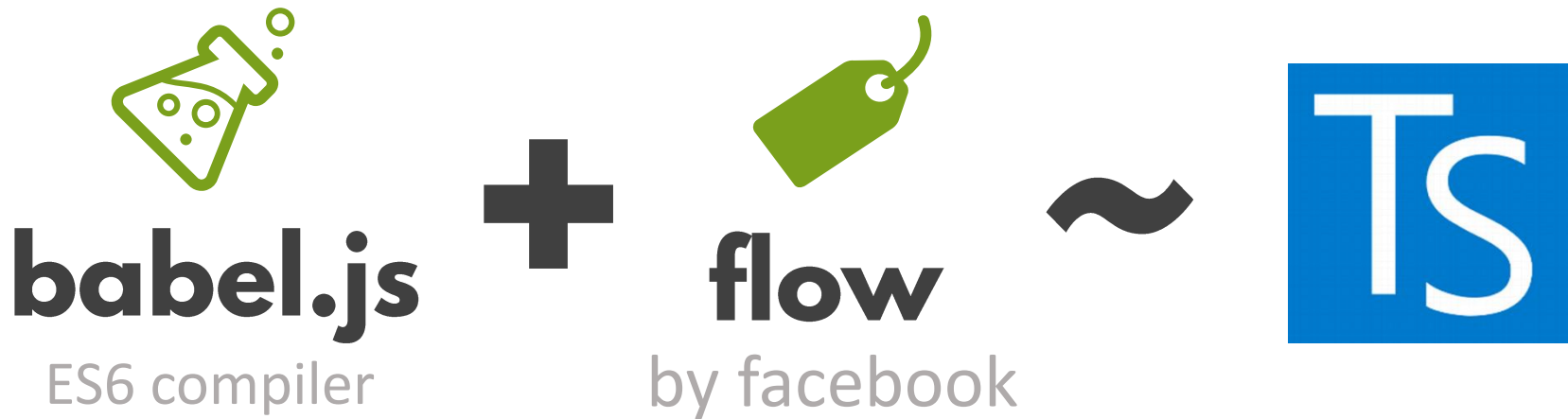
## proper project structure

easier extension and  
refactoring



**Is TypeScript a unique  
solution to all your JS problems?**

**NO**



**\*and what about CoffeeScript?**





**IDE integration**



**reliable  
maintainers**



**lots of resources**



**AngularJS  
support**

**save time &  
money**

**early bug  
detection**

**IDE integration**

**gain stability**

**reliable  
maintainers**

**lots of  
resources**

**scale well**

**proper project  
structure**

**AngularJS  
support**

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**an insured**

**has a name**

**has some amount  
of premium**

# write it in Javascript

# let's try TypeScript

# what's TypeScript without a type?

# problem, Javascript?



**Bang,**  
**TypeScript has**  
**a solution**



**an insured**

**has a name**

**has some amount  
of premium**

**has an address**

how can we  
do it **better**?



**an insured**

**has a name**

**has some amount  
of premium**

**has an address**

**can be a person  
or a company**

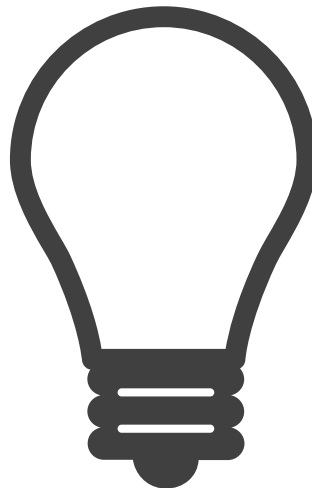


# it's **your** turn now

**classes representing a  
family of animals**

**a simulation of a  
bidding auction**

**a simple calculator**



**various types of  
vehicles**

**a scrum project**

**musical  
instruments**



**let's take  
a break**

**15"**



Show me what you've got

**introduction**

**first lines**

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**angular intro**

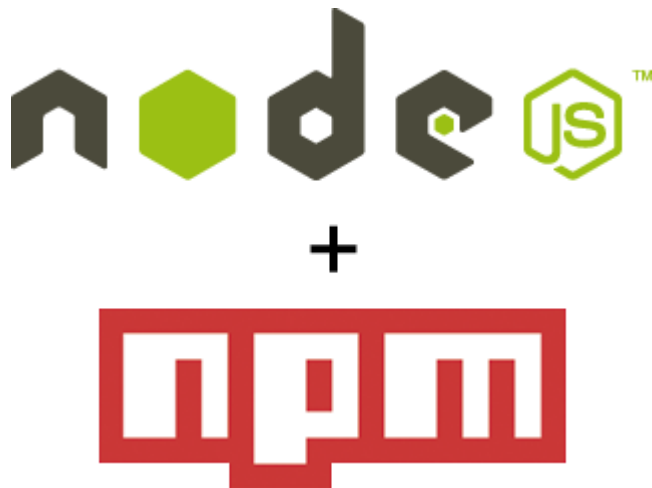
**angular + typescript**

break

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<https://github.com/sollersconsulting/codepot2015>





- Controllers = JS constructor function, which is used to manipulates Angular Scope (which is visible on screen)
- Services = code to be shared across the app (singletons), used with dependency injection
- Directives = objects, which works on DOM elements
- Providers, factories = both are about creating objects, providers allows us to configure common things before running an app
- Others 😊
- Visit: <https://docs.angularjs.org/api>

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- tsc = TypeScript compiler, hidden in grunt task
- tsd = TypeScript definition manager for DefinitelyTyped
- tslint = static analysis linter for TS (tslint.json for settings)

- `angular_directives` = pseudo Client-Server app, with one server and many clients, broadcasts used there, foundation added by bower
- `angular_directives_2` = text editor app, which uses different types of scopes



**let's take  
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**15"**



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**1 TS compile error  
=  
1 potential JS error during  
execution**

```
var x = 1; // number  
var y = x*x; // number  
var z = "number" + x; // string  
z = 7; // error
```

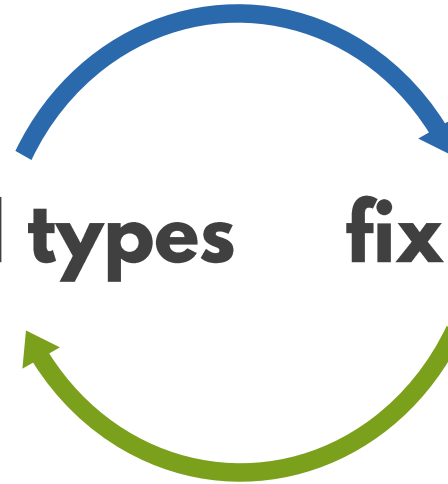
```
var x; // type any!!!  
x = 1;  
x = "test";
```

**rename  
files to .ts**



**add types**

**fix errors**



# Let your IDE help you

WebStorm/IntelliJ  
Visual Studio  
SublimeText  
Atom.io

# tslint

What about,  
say  **jQuery?**  
*write less, do more.*

## What if I **told** **you** you can define types in separate files?

```
/// <reference path="jquery/jquery.d.ts" />
```



Choose from **1163** type  
definitions for existing  
libraries on  
[definitelytyped.org](https://definitelytyped.org)  
or contribute yourself

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**thank you**