

TypeScript

Application-scale JavaScript

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Application scale JavaScript
development is hard.

TypeScript: A language for application scale
JavaScript development.

TypeScript: A typed superset of JavaScript that
compiles to plain JavaScript.

Any browser. Any host. Any OS.

Open Source.

TypeScript Ecosystem

“TypeScript is quite a good piece of work for Visual Studio users, and smartly aligned with ES6.”

- *Brendan Eich*

Frameworks

Definitely Typed has 150+ community curated library typings
Over 90% of top 20 JavaScript frameworks covered

Tools

Rich IDEs: Visual Studio, WebStorm, Cloud9, Brackets

Text Editors: SublimeText, vi, Emacs, JSBin

Build Integration: ASP.NET, node.js, compile-in-client, Ruby, grunt

Process

Active Open Source development on CodePlex

Thousands of discussion posts and tracked issues

TypeScript

An Open Source language for application scale JavaScript development.

Starts with JavaScript

All JavaScript code is TypeScript code, simply copy and paste

All JavaScript libraries work with TypeScript

Optional Static Types, Classes, Modules

Enable scalable application development and excellent tooling

Zero cost: Static types completely disappear at run-time

Ends with JavaScript

Compiles to idiomatic JavaScript

Runs in any browser or host, on any OS

Demo: TypeScript in Action

Type System

TypeScript's *static* compile-time type system accurately models the *dynamic* run-time type system of JavaScript

Type inference and structural typing

In practice very few type annotations are necessary

Generics

Enables more accurate expression of flow of types

Works with existing JavaScript libraries

Declaration files can be written and maintained separately

Types enable tooling

Provide verification and assistance, but not hard guarantees

Classes and Modules

TypeScript's *static* compile-time type system accurately models the *dynamic* run-time type system of JavaScript

Scalable application structuring

Classes, Modules, Interfaces enable clear contracts between components

Aligned with emerging standards

Class, Module, Lambda syntax aligns with ECMAScript 6 proposals

Supports popular module systems

CommonJS and AMD modules in any ECMAScript 3 environment

TypeScript 0.9

This release represents the largest update to TypeScript to date, bringing significant changes to the language, compiler and tools.

Language

Generic classes, interfaces, and methods

Overloading on constants

Enum types

'export ='

Function/class/module merging

Methods in object literals

Compiler

Incremental parser

Pull-model type checker

Scaling to 100K+ line projects

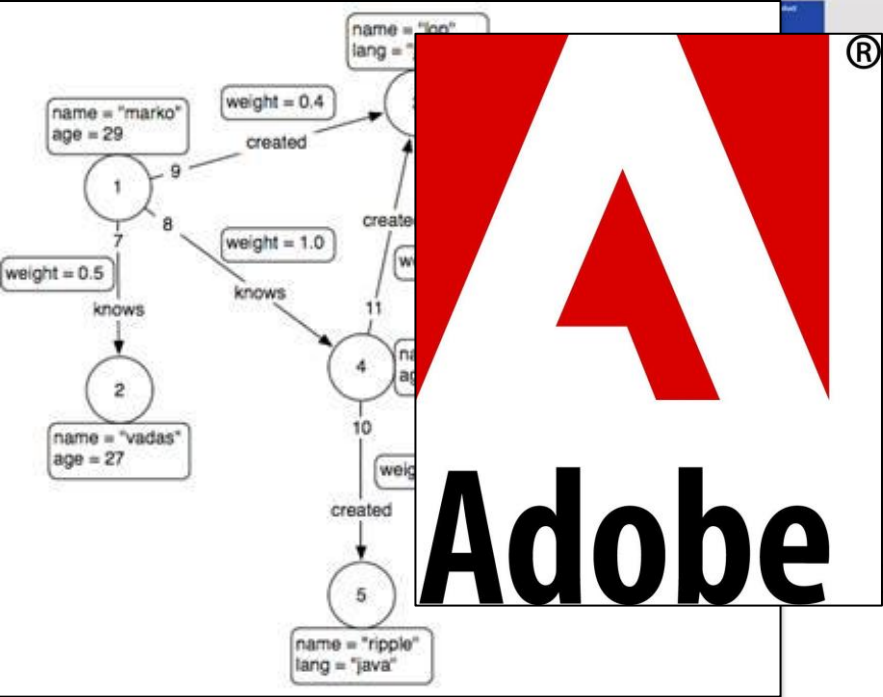
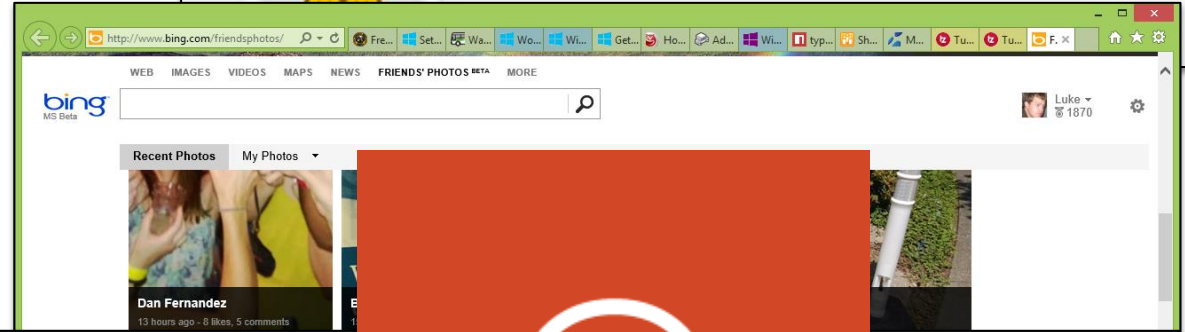
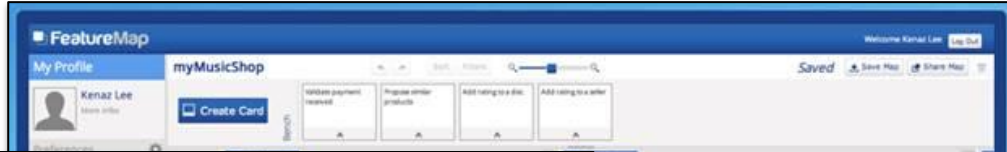
TypeScript Adoption

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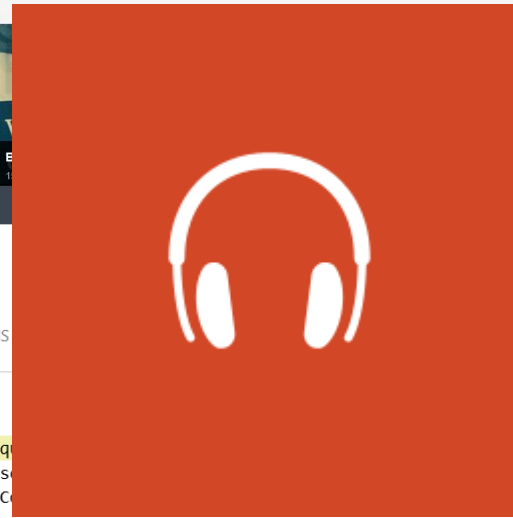
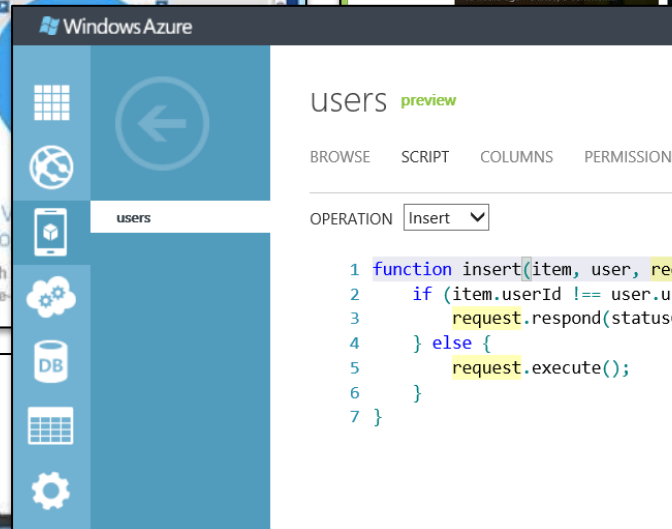


Starling JS

The Open-Source Game Engine For JavaScript
...In An Early Preview

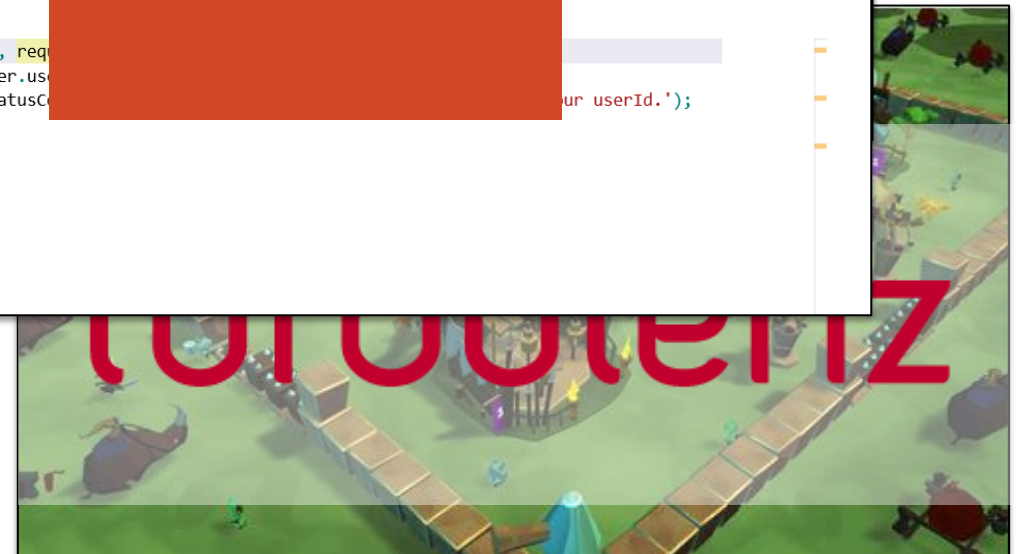


Adobe



zud.io

The Azure Cloud storage toolkit



<http://typescriptlang.org>