



TypeScript In-Depth:

Intro

Course Overview

Intro

Types

Functions

Interfaces

Classes

Modules

Generics

Decorators

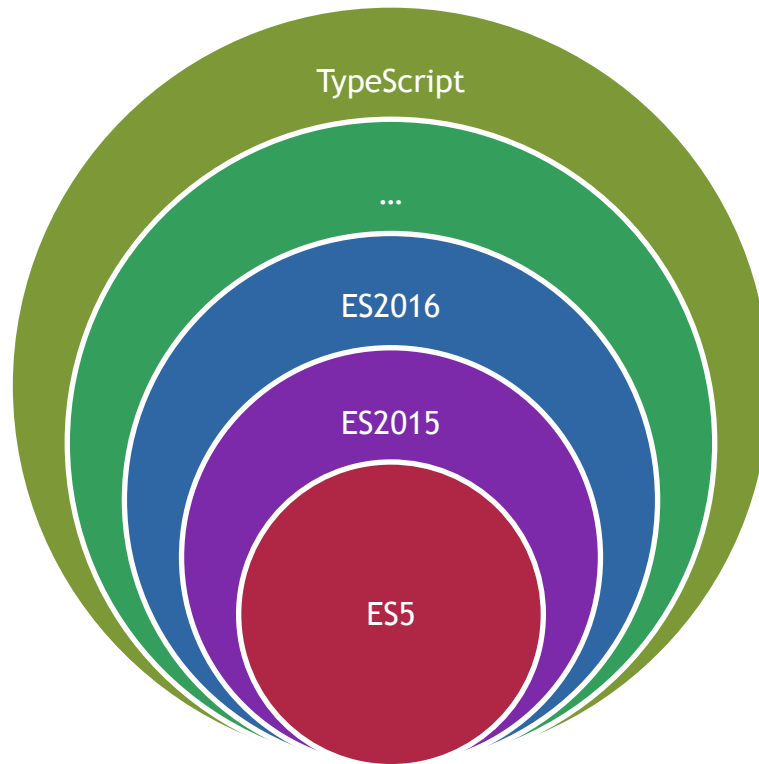
Asynchronous
Patterns

History



1. 2012
2. Anders Hejlsberg (TypeScript, Delphi, C#)
3. Microsoft
4. Open Source
5. Flexibility and High Performance

TypeScript

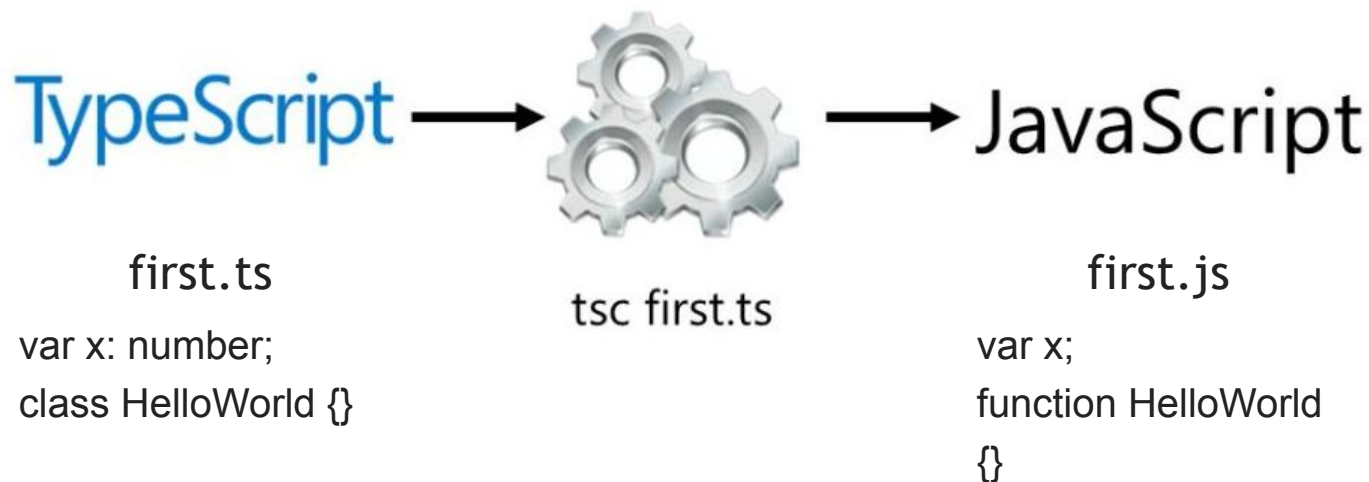


How It Works



1. TypeScript - language with static type checking and compilation to JavaScript
2. We can set JavaScript version in TypeScript configuration (**tsconfig.json: --target**)
3. TypeScript supports compilation to the following JavaScript versions:
 - ESNext
 - ES2015 - ES2018
 - ES5
 - ES3 (default)

TYPESCRIPT COMPILER



TypeScript → JavaScript

TypeScript

Encapsulation

Static Typing

```
class Greeter {  
  greeting: string;  
  constructor (message: string) {  
    this.greeting = message;  
  }  
  greet() {  
    return "Hello, " + this.greeting;  
  }  
}
```

JavaScript (ES5)

```
var Greeter = (function() {  
  function Greeter(message) {  
    this.greeting = message;  
  }  
  Greeter.prototype.greet = function() {  
    return "Hello, " + this.greeting;  
  };  
  return Greeter;  
})();
```

Get TypeScript

INSTALL

```
npm install -g typescript
```

COMPILE

```
tsc helloworld.ts
```


IDE with TypeScript Support

Visual Studio



Visual Studio 2019



Visual Studio Code



Visual Studio 2017

And More...



Sublime Text



Atom



Eclipse



Emacs



WebStorm



Vim

WHAT IS TSLINT?

What is TSLint?



1. Conceptually similar to popular JavaScript linters
 - JSLint
 - ESLint
2. Installed with **npm**
3. Rules stored in **tslint.json** file
4. Executed from a **command line**
5. TSLint **extension** available for Visual Studio Code
6. **Plugins** are available for other editors

HOW TO INSTALL, CONFIGURE AND USE TSLINT

TSLint Install

Website:

<https://palantir.github.io/tslint/>

Global installation

```
$ npm install tslint -g
```

Configuration

```
tslint --init
```

Use it

```
tslint [options] [file...]
```

```
gulp-tslint
```

EXTENSION FOR VISUAL STUDIO CODE

Extension for Visual Studio Code

