

Training program:

Advanced TypeScript

Info:

Name:	Advanced TypeScript
Code:	TypeScript-adv
Category:	TypeScript
Target audience:	developers architects
Duration:	3 days
Format:	40% teoria, 40% ćwiczenia, 20% praca w grupie

Training program

1. Introduction

1.1. Chosen elements of ES5 and ES6

1.2. Compile-time and runtime

1.3. Responsibilities of TypeScript: problems solved and unsolved

2. Types

2.1. Primitive types

2.2. The any type

2.3. Enums, String literals, Tuples

2.4. Unions, Intersections, Index types

2.5. Function types

2.5.1. Functional Programming with TS

3. Type system

3.1. Static vs Dynamic typing

3.2. Strong vs Weak typing

3.3. Duck typing

3.4. Type inference

4. TypeScript Classes

4.1. Interfaces

4.2. Classes

4.3. Mixins

4.4. OOP: abstraction, polymorphism, inheritance, encapsulation

5. Ecosystem

5.1. Editors/IDEs

5.2. Compiler, compilation target

5.3. Handling dependencies

5.3.1. .d.ts files

5.3.2. DefinitelyTyped, typings

5.3.3. npm @types

5.3.4. writing custom declarations

6. Advanced Concepts

6.1. TS Generics

6.2. TS Decorators

7. Bundles

7.1. TS Namespaces

7.2. TS Modules

7.3. Webpack automation

8. TypeScript and legacy code

8.1. Project Remake Strategy: one-big-shot vs step-by-step

8.2. Moving logic between server and client

8.3. Old and new code co-existing

8.4. Study case

9. More usecases

9.1. Typed templates

9.2. Typed promises and other async operations

10. DDD elements

10.1. Domain logic in frontend layer

10.2. Data Transfer Object

10.3. Value Object

11. Contract-First Design (API Contracting)

11.1. TS interfaces contracts

11.2. RAML/swagger-based contracts

11.3. JSON format, JSON Schema

12. Backend-less development

12.1. Organizational and Business background

12.2. BLD implementations