

3. TypeScript for JavaScript Engineers (VL training)

By Wojciech Karaś

bio: with his years of experience in TypeScript is one of the leading developers in VirtusLab where with the team he is responsible for moving the solutions higher in the technology ladder.

Level: Introductory - no previous knowledge of TS is assumed, intermediate level in JS

Length: 2 days - 4 hours of classroom time each day, plus breaks

Approach: Beyond education - students code through a training case study and discover how to leverage TypeScript to their needs

Requirements: Participants must bring their own laptops with VSCode and Node installed

next sessions: to be announced in June

About

From the dynamic and chaotic world to the static and structured one. How to leverage TypeScript to make our work as frontend developers more enjoyable and deliver bulletproof applications to the clients. Introduction to TypeScript syntax, type system and best practices.

Participants

Frontend and Fullstack developers who have experience with JavaScript
Developers from different technology stack who are interested in how modern frontend may look like.

Benefits

Knowledge and skills to confidently write type safe programs in TypeScript
Better understanding of statically and structurally typed languages in general
Good practices and productivity tips while working with TypeScript codebase

Outline

- Intro
 - Why even bother
 - What TS is
 - What TS isn't
- Configuration
- Refactoring and navigation
- Primitive types
- Arrays
- Tuples
- Objects
- Type vs Interface

- Functions
- Structural typing
- Type aliases
- Unions
 - Nullable types with strictNullChecks
 - Type guards
 - Literal types
 - Discriminated Unions
- Generics/Parametric polymorphism
 - Types
 - Functions
 - Generic constraints
- Advanced types