TypeScript

Duration: 2 Days **Course Code: TS**

Overview:

TypeScript Course Overview

English - Please note this course is only available in English.
Nederlands - Let op: deze training is alleen in het Engels beschikbaar.
Français - Veuillez noter que ce cours est uniquement disponible en anglais.
TypeScript is a static type checker for JavaScript. Where JavaScript code is prone to failures at runtime,TypeScript flags errors at compile time. Angular

Target Audience:

Who will the Course Benefit?

Objectives:

- Course Objectives
- This course aims to enable the delegate to build web applications using TypeScript. That is,the delegate ought to be able to write using TypeScript,that which they previously wrote using JavaScript,and in so doing produce code which is better and more robust.

Prerequisites:

- Delegates attending this course should be familiar with/able to write JavaScript code up to and including features detailed in ES6. This knowledge can be gained by attendance on the pre-requisite JavaScript Developer course.

Follow-on-Courses:

Further Learning

- Developing Node.js Web Applications
- Angular Development
- React

Content:

TypeScript Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: INTRODUCTION

- TypeScript vs. JavaScript
- Installing TypeScript
- Static type checks
- Non-exception failures
- Compiling TypeScript to JavaScript
- Explicit types
- Strictness flags

Session 2: TYPES

- Primitive types
- Array types
- Variable and function type annotations
- Object types
- Union types
- Aliases
- Interfaces
- Assertions
- Literal types
- null and undefined types
- Other types

Session 3: NARROWING

- What is narrowing?
- Type guards
- Truthiness
- Equality
- Membership
- instanceof
- Assignments
- Control flow analysis
- Type predicates

Session 4: FUNCTIONS

- Function type expressions
- Call signatures
- Construct signatures
- Generic functions
- Generic constraints
- Optional parameters
- Optional parameters in callbacks
- Overloading
- Using this in functions
- Rest parameters and arguments (spread)
- Parameter destructuring
- void return type TypeScript Training Course Course Contents - DAY 2

Session 5: MORE ABOUT OBJECT TYPES

- Optional property modifier
- Readonly property modifier
- Index signatures
- Extending types
- Intersecting types
- Aliases or interfaces?
- Generic object types
- Array types
- Tuple types

Session 6: TYPE MANIPULATION

- What is type manipulation?
- Generics
- keyof
- typeof
- Indexed access types
- Conditional types
- Mapped types
- Utility types

Session 7: CLASSES

- Class members
- Fields
- Constructors
- Methods
- Getters and setters
- Class heritage
- extends
- implements
- Member visibility
- Static members
- Generic classes
- Handling this
- Arrow functions
- Parameter properties
- Class expressions
- Abstract classes and members
- Relationships between classes

Session 8: BEST PRACTICES

- General types
- Generics
- The any type
- Callback types
- Function overloads
- Others

Further Information:

For More information, or to book your course, please call us on 0800/84.009

info@globalknowledge.be

www.globalknowledge.com/en-be/