

# Programming in TypeScript I

Course code: INTTS1

The course is designed for beginning developers in the Language typescript who want to learn the basics of the language. On the course you will learn to use basic and advanced language constructs such as data types, variables, conditions, loops, and functions, but also learn the basics of object-oriented programming in typescript.

## Required skills:

- Basic knowledge of algorithms and programming
- Preferably previous experience with programming in other languages, such as C language, Pascal, Visual Basic, Java or C #

## Teaching methods:

- Professional explanation with practical samples and examples.

## Teaching materials:

- Powerpoint handouts and module printouts.

## Course syllabus:

Introduction to the Language typescript

- Language typescript
- Development environment

Data Types and Operators

- Var, years, and const
- Union, guards, aliases
- Arithmetic operators
- Comparison operators
- Boolean operators
- Bitwise operators
- Assignment operators

Flow control program

- The if statement
- The switch
- While statement
- Command for
- For..in

Function

- Functions such as data type
- Function declarations and function expressions
- Optional parameters
- Default values
- Rest parameters
- Overloading
- Function scope
- Immediately invoked functions
- Generic functions
- Tag functions and tagged templates
- Arrow functions

Object-oriented programming in typescript (OOP)

- Class

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- Heredity
- Mixins
- Generic classes
- Interface

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