

Introduction to TypeScript 2

Modality: On Demand

Duration: 20 Hours

About this course:

Want to write organized code for your website that you can easily manage and maintain? TypeScript is the answer to building scalable web applications. TypeScript lets you write JavaScript the way you want to. TypeScript is a typed superset of JavaScript that compiles to plain JavaScript. It works on Any browser. Any host. Any OS. TypeScript is open source and has attracted the attention of a big community of web developers who are continuously contributing to the wealth of the language making it the language for web development. TypeScript brings all the next-generation features of ECMAScript 6 like Arrow Functions, Decorators, Generics, Modules and Interfaces. In this course, you'll learn all the basics of TypeScript and will have hands-on using features of TypeScript such as types, optional static types, classes, interfaces, and modules. You will learn how TypeScript has solved many issues developers have suffered from with JavaScript. You will learn how TypeScript has made web development more fun and easier. You will be doing all this using the most recent released version of the language TypeScript 2.3.

This course will cover all you need to know to get up and running and start building functional websites using TypeScript 2.3

We assume that you have a general understanding of either JavaScript or another programming language. This course will not teach you JavaScript or the fundamentals of programming so if you haven't programmed before, be sure to set aside extra time so you can explore some basic concepts and skills that may be foreign to you. Object Oriented Programming (OOP) experience is not required but is a big plus to understand concepts like classes and inheritance in TypeScript. Familiarity with HTML is also very helpful for this course.

If you are familiar with JavaScript, many of the concepts in TypeScript will be familiar but we'll cover some concepts that may be new to you and show you how TypeScript can enhance your JavaScript programming.

Knowing TypeScript is becoming more and more a must have skill for web development since many of the web development libraries now are using TypeScript. For example, TypeScript is a must when it comes to using Angular 2 in a web application. TypeScript also can be used in server-side applications. Knowing TypeScript is your way to become a full stack developer. Therefore, if you are considering a career in web development, TypeScript is an important gear in your tool box or skillset.

Course Objective:

- Types in TypeScript
- Programming in TypeScript
- Modules and Namespaces
- Advanced Topics in TypeScript

Audience:

- Front-end developer
- Web developer

Prerequisite:

- Basic Knowledge of JavaScript
- Basic Knowledge of OOP concepts
- Basic Knowledge of HTML

Course Outline:

Module 1 | Getting Started with TypeScript

- Introduction
- Overview on TypeScript
- Installing TypeScript
- The TypeScript compiler
- TypeScript in Action
- Labs Overview And Config
- Install Visual Studio Code
- Module test

Module 2 | Programming and Types in TypeScript

- Introduction
- Types in TypeScript
- Basic Types
- Complex Types
- Type compatability and inference
- Functions and Function types
- Labs Overview And Config
- Tutorial Lab01 Declaring And Using Types
- Tutorial Lab02 Classes Enums AndInterfaces
- Tutorial Lab03 Extending Classes
- Self Assessment Lab Dice Roller
- Module test

Module 3 | Modules and Namespaces

- Introduction
- Namespaces
- Modules
- Modules or Namespaces
- Working with JavaScript Libraries

- Labs Overview And Config
- Tutorial Lab01 To Use Namespaces
- Tutorial Lab02 To Use Modules
- Tutorial Lab03 To Use External Libraries
- Self Assessment Lab Enhancing Your Dice App
- Module test

Module 4 | Advanced topics

- Introduction
- Advanced Types
- Advanced Classes
- Decorators
- Optional Module Loading
- Calling Web Services
- Labs Overview And Config
- Tutorial Lab01 Using Advanced Types
- Tutorial Lab02 Using Mixins And Decorators
- Tutorial Lab03 Configuring Builds
- Tutorial Lab04 Using Async Methods
- Self Assessment Lab Enhancing Your Dice App

Module 5 | Final Evaluation

- Final Exam?