

TypeScript 101 – Foundations in a Strongly Typed Environment

OEM: Galvanize • Code: TYPESCRIPT_101_FOUNDATIONS_IN_A_STRONGLY

COURSE DESCRIPTION

TypeScript 101 introduces the fundamentals of programming in a typed environment, teaching learners how modern web applications are built and how data moves through them.

AUDIENCE PROFILE

- Active duty service members
- Government civilians
- Reservists and national guard service members (must be on orders to attend)

PREREQUISITES

- A personal computer that is reasonably new (within the last 4-5 years)
- 16 GB RAM (8 GB acceptable, but not recommended)
- Mac or Windows OS
- Video/audio capable webcam (can be a separate webcam device)
- A reliable, strong internet connection

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- Set up and understand a TypeScript development environment
- Learn core programming fundamentals
- Understand basic web concepts (HTML/CSS/DOM)

COURSE OUTLINE

Module 1: Set up and understand a TypeScript development environment

- Gain fluency with the tools used by production engineering teams, including terminal commands, editors, bundlers, and TypeScript compilers.

Module 2: Learn core programming fundamentals

- Learn core programming fundamentals – types, functions, control flow, objects, and arrays – to reinforce correctness and build skills applicable to enterprise software workflows.

Module 3: Understand basic web concepts (HTML/CSS/DOM)

- Learn how the browser works in order to build interactive, dynamic webpages, and understand how front-end applications actually function.

Module 4: Resulting Capability

- Participants complete the course with the ability to build simple interactive web pages, understand strongly typed code, and reason about how modern front-end systems operate. This is ideal groundwork for future front-end or application development roles.