

## Advanced Typescript and design patterns

Instructor: Danny Vernovsky, Asaf Naori

Length: 16 Hrs

Target audience: Developers

Prerequisites: typescript, javascript, OOP

Content:

### Chapter 1: (3.5 hours)

0. Intro – align env - download node, download tsc etc..
1. Generics – general idea and generic constrains.

First exercise – make a function generic.

2. Decorators
  - a. How to use a decorator – show examples for angular
  - b. How to create a costume decorator - deferent decoration types.
  - c. Reflection – meta data – show example.

second exercise: create the “injectable” decorator -

### Chapter 2: (3.5 hours)

3. Advanced typing:
  - a. Utility types
  - b. Conditional types
  - c. Mapped types

### Chapter 3: (3.5 hours)

- d. Costume created types (advanced)
4. Typescript tricks
5. OOP intro – OOP principles (encapsulation, abstraction, inheritance, polymorphism) SOLID, UML

### Chapter 4: (3.5 hours)

6. Creational patterns
  7. Behavioural patterns
- Structural patterns