# Spring Boot Microservices

Beginner to Guru

Overview of MapStruct

# MapStruct

- MapStruct started in 2014, with the first release in 2017

- Founded by Gunnar Morling, who is the spec lead for Hibernate on Bean Validation 2.0

- Current release 1.3.0.Final - February, 2019

- MapStruct is a code generator for mapping between Java bean types

  - ie BeerDto -> Beer (Entity)

- Like Project Lombok, MapStruct hooks into annotation processing to generate code

- Unlike Project Lombok, MapStruct will generate source code

# MapStruct

- MapStruct follows a convention over configuration approach

- MapStruct works by you declaring an interface, MapStruct generates the implementation

- Properties of the same name / same type will automatically get mapped

  - Huge time saver!

- Different property names are configured via annotation properties

- Different types can be referenced with additional mapper implementations

- If present, MapStruct will use builders

# MapStruct

- Mappers can reference other mappers

  - ie an Order Mapper can use the Order Line Mapper

- Can be configured to annotate generated mappers as Spring Components

  - Useful for Dependency Injection with Spring

- Can use default methods on interfaces

- Complex mappings can be done via abstract classes

SPRING FRAMEWORK

GURU