

API Workshop

Open API and Swagger

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Software
Architecture

Agenda

- What is an Open API Specification?
- Why should I consider using one?
- Working with OpenAPI Specification (Swagger) and Spring Boot
- Generating client code
- Balancing writing specifications vs generating specifications

What is an Open API Specification?

XSD

gRPC

CORBA

WSDL

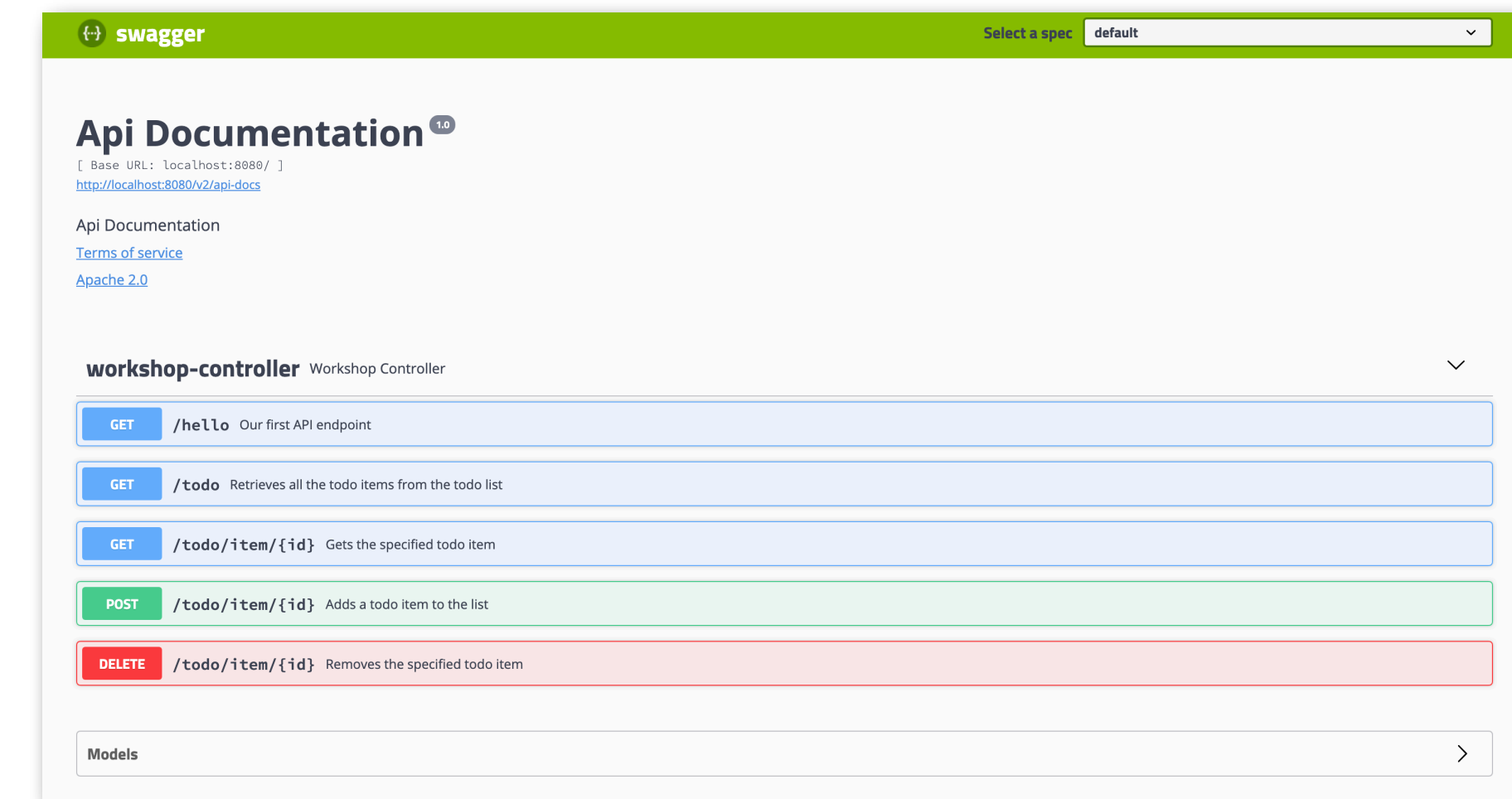
WADL

What is an Open API Specification?

- Defines the structure of a REST API
- Defines the objects exchanged in the REST API
- Strong patterns for validation of exchanges
- Describes the possible interactions between client and server
- Becomes a point of consistency in a decoupled software environment

Why should I consider using Open API Specifications?

- Users of the API can understand the API structure
- Supplies documentation on the API
- Allows developers to generate code to interact with your API
- Can be used to help describe and observe changes in your API



Spring Boot and Open API Specification

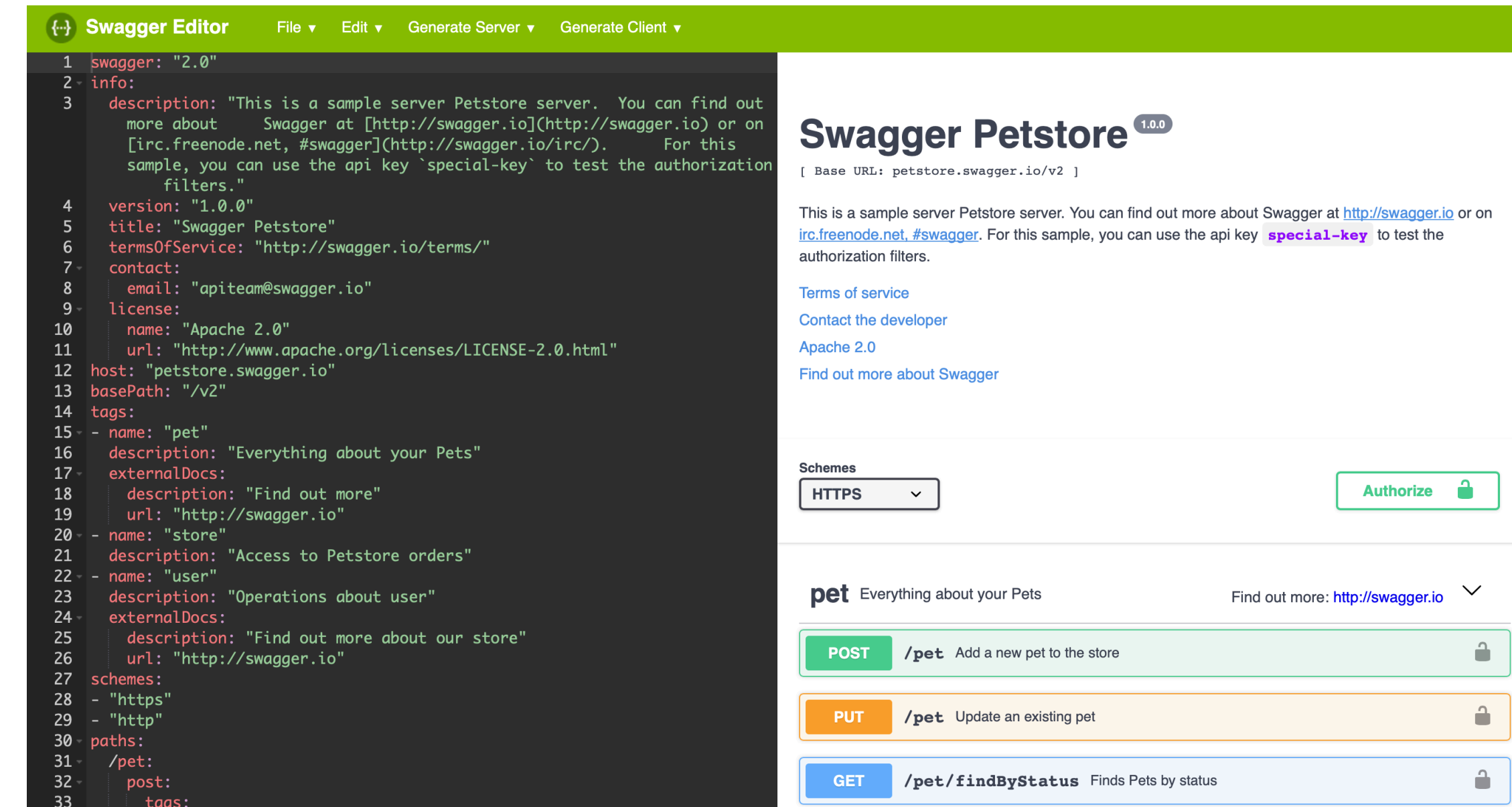
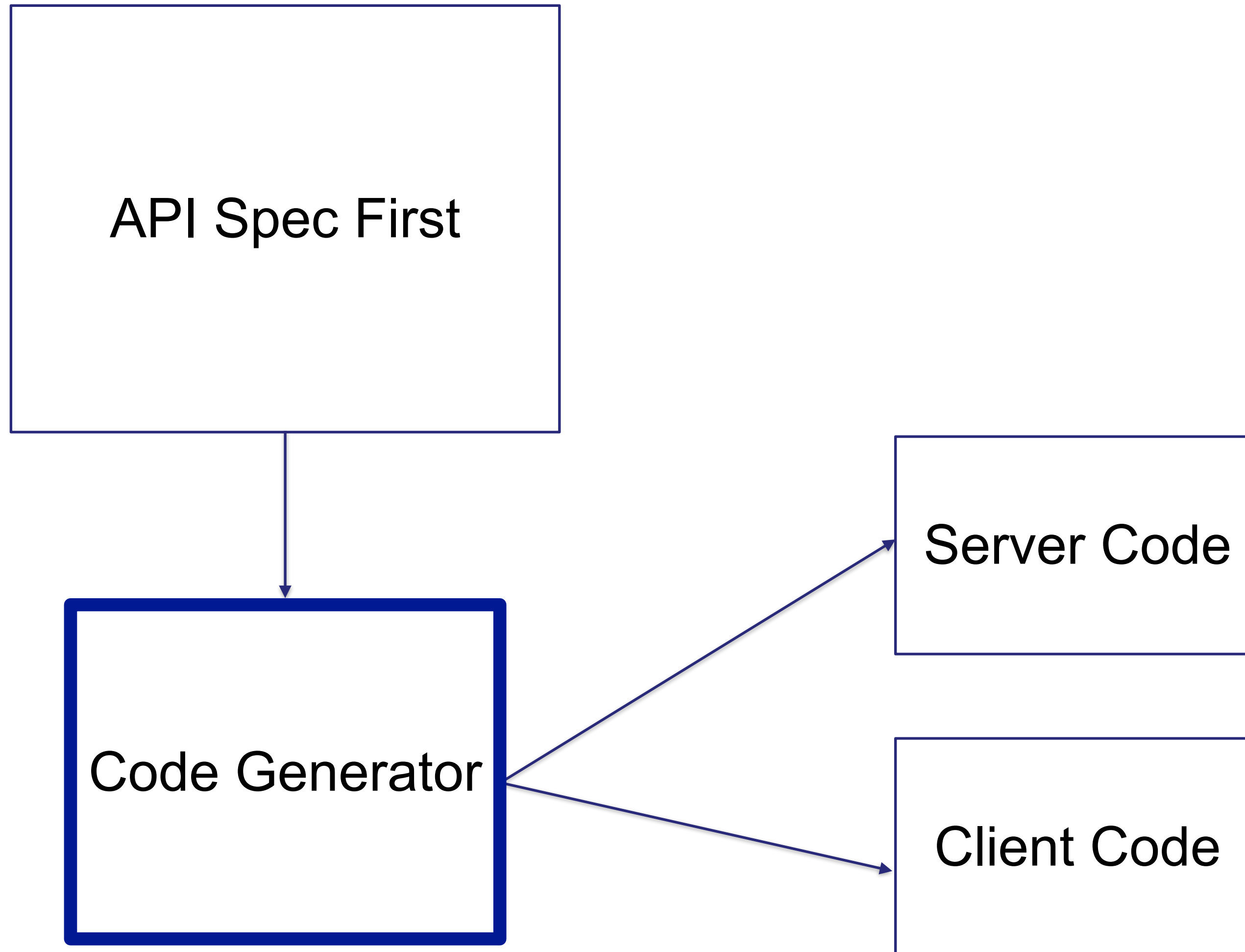
- Spring controllers describe and form the structure of an API
- <https://springdoc.org/> is a Spring Project project that scans annotations and generates the specification
- Enabled via annotations on a Spring Boot project
- Has configuration to control the detail of the specification

Generating Client Code

- Code generation tools generate the client of an API based on the specification
- Many integrations are starting to use Open API specs - e.g. REST/Excel integrations
- It is also possible to generate server side code from an Open API Specification

```
java -jar openapi-generator-cli.jar generate \  
-i http://localhost:8080/v3/api-docs \  
-g java \  
-o todos-client
```


API Specification First



<https://editor.swagger.io>

Lab 3 - OpenAPI

<https://github.com/nickebbitt/api-workshop>