API Workshop

Open API and Swagger

Agenda

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

What is the OpenAPI Specification?

Generally Categorized
REST **API Description Language**

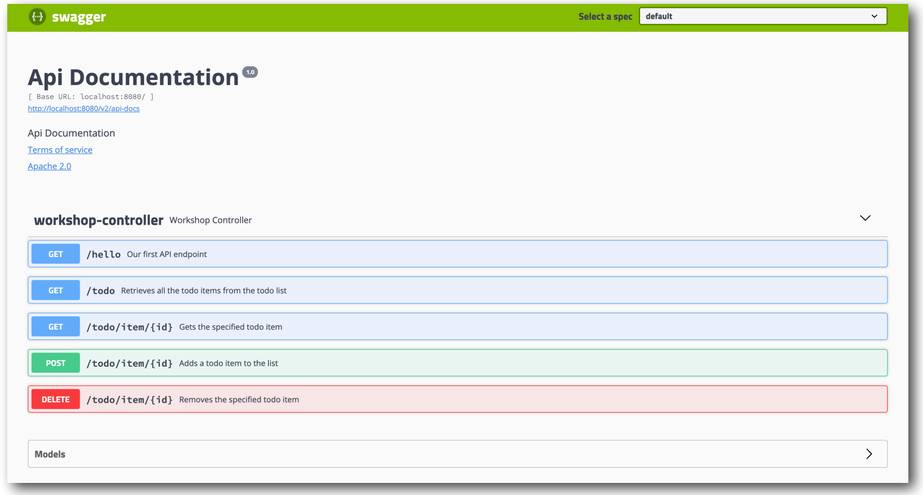
More Generally
IDL for REST APIs

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



The Open API Initiative - Mission

Provide an open source, technical community, within which industry participants may easily contribute to building a vendor-neutral, portable and open specification for providing technical metadata for REST APIs –
The OpenAPI Specification.

Spring Boot and Open API Specification

- Spring controllers describe and form the structure of an API
- **spring-fox** is an OS 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 swagger-codegen-cli.jar generate \
  -i http://localhost:8080/v2/api-docs \
  -l java \
  -o com/jpgough/workshop/java
```