SPRING FRAMEWORK
GURU

What is Swagger?

swag·ger

/ˈswaɡər/

verb

1. walk or behave in a very confident and typically arrogant or aggressive way.
"he swaggered along the corridor"

noun

1. a very confident and typically arrogant or aggressive gait or manner.
"they strolled around the camp with an exaggerated swagger"

Swagger

- Wikipedia - "Swagger is an open source software framework backed by a large ecosystem of tools that helps developers design, build, document, and consume RESTful Web services."

Swagger's Goals

- The goal of Swagger is to define a standard, language-agnostic interface to REST APIs which allows both humans and computers to discover and understand the capabilities of the service without access to source code, documentation, or through network traffic inspection.

REST vs SOAP

- Prior to RESTFul APIs, SOAP web services were very popular.

- A cornerstone of SOAP is the WSDL.

  - Web Services Description Language

- WSDL is an XML document, describing a web service

- Can also be thought of as a 'contract'

- There is no formal WSDL for RESTFul APIs. Hence Swagger.

What is Swagger

- Swagger is more than Documentation

- Swagger is a Specification

- JSON for Metadata

- JSON for API Definition

- JSON for Schema for the Model Specification

What is Swagger

- The Swagger Specification is Machine Readable

- Also is Language Agnostic

- Not just for Java and Spring!

- Swagger is supported for most popular server side and client side languages

The Swagger Eco System

- Swagger UI - HTML, Javascript and CSS components to dynamically generate documentation from a Swagger Compliant API.

  - We've seen this in use in the course

- Swagger Editor - Edit API Specifications in YAML and preview documentation real time.

- Swagger Codegen - Create client libraries and server stubs from a Swagger definition

The Swagger Specification

- The Swagger Specification can be JSON or YAML

- Field names are case sensitive

- Data types are based on JSON-Schema

- Models are described using Schema Object, of JSON Schema

- Swagger 2 uses JSON Schema Draft 4

Swagger Specification Example

```yaml
swagger: '2.0'
info:
  version: 1.0.0
  title: Simple example API
  description: An API to illustrate Swagger
paths:
  /list:
    get:
      description: Returns a list of stuff
      responses:
        200:
          description: Successful response
```

OpenAPI Specification

- Swagger Specification aka:

  - Swagger RESTful API Documentation Specification

- With Swagger 2.0, the Swagger RESTful API Documentation Specification Became Known as:

  - OpenAPI Specification

- Swagger 3.0 - Released July 2017

  - Eco System and tooling still adopting

Coming Up In The Course!

- How to configure the Spring Fox library to generate Swagger Documentation for your Spring MVC Rest APIs.

- Customizing your Spring MVC Swagger Documentation

- Using the Swagger Editor

- Review of Swagger Pet Store and Generated Code

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