

Swagger

¿Que es?

- ▶ Documentación de APIs estandarizada.
- ▶ Lo más comúnmente utilizado en la industria.
- ▶ Provee una estructura simple y clara

Swagger UI

<https://petstore3.swagger.io/>

The screenshot shows the Swagger UI interface for the Petstore API. At the top, there's a navigation bar with the Swagger logo, the URL <https://petstore3.swagger.io/api/v3/openapi.json>, and a green "Explore" button. Below the header, the title "Swagger Petstore - OpenAPI 3.0" is displayed, along with version 1.0.19 and OAS 3.0 status indicators. A sub-header provides the URL <https://petstore3.swagger.io/api/v3/openapi.json>. A descriptive text block explains that this is a sample Pet Store Server based on the OpenAPI 3.0 specification, mentioning the design first approach and the ability to improve the API. Below this, a section titled "Some useful links:" lists two items: "The Pet Store repository" and "The source API definition for the Pet Store". Further down, links for "Terms of service", "Contact the developer", and "Apache 2.0" are provided, along with a link to "Find out more about Swagger". In the bottom left corner, there's a "Servers" dropdown set to "/api/v3" and an "Authorize" button with a lock icon. The main content area features a large orange header for the "pet" endpoint, which is described as "Everything about your Pets". Below this, a "PUT /pet" operation is shown with a description "Update an existing pet". To the right of the main content, there's a "Find out more" link with a small upward arrow icon.

POST

/pet Add a new pet to the store



Add a new pet to the store

Parameters

Try it out

No parameters

Request body required

application/json



Create a new pet in the store

[Example Value](#) | [Schema](#)

```
{  
  "id": 10,  
  "name": "doggie",  
  "category": {  
    "id": 1,  
    "name": "Dogs"  
  },  
  "photoUrls": [  
    "string"  
  ],  
  "tags": [  
    {  
      "id": 0,  
      "name": "string"  
    }  
  ],  
  "status": "available"  
}
```

Responses

Code	Description	Links
200	Successful operation	No links
	<p>Media type</p> <div><p>application/xml</p><p>▼</p></div> <p>Controls Accept header.</p> <p>Example Value Schema</p> <pre><?xml version="1.0" encoding="UTF-8"?> <pet> <id>10</id> <name>doggie</name> <category> <id>1</id> <name>Dogs</name> </category> <photoUrls> <photoUrl>string</photoUrl> </photoUrls> <tags> <tag> <id>0</id> <name>string</name> </tag> </tags> <status>available</status> </pet></pre>	

Swagger YAML

- ▶ Archivo de extesión .yaml donde uno define el swagger
- ▶ Puede ser generado a través de un editor
- ▶ Existen extensiones que lo generan automáticamente de nuestro código

Edito Swagger Yaml

<https://editor.swagger.io/>

The screenshot shows the Swagger Editor interface with the following details:

- Header:** Swagger Editor. Supported by SMARTBEAR. Try our new Editor ↗
- Code Editor (Left):** Displays the OpenAPI 3.0 YAML specification for the Petstore API. The code is color-coded and numbered from 1 to 34. Key sections include info (title: Swagger Petstore - OpenAPI 3.0, description), externalDocs, servers, and tags (pet, store).
- Preview Area (Right):** Shows the generated API documentation for the Petstore API. It includes:
 - Title:** Swagger Petstore - OpenAPI 3.0 (version 1.0.11, OAS 3.0)
 - Description:** A sample Pet Store Server based on the OpenAPI 3.0 specification.
 - Links:** Some useful links to GitHub repositories.
 - Terms of Service:** <http://swagger.io/terms/>
 - Contact:** Email: apiteam@swagger.io
 - License:** Apache 2.0, URL: <http://www.apache.org/licenses/LICENSE-2.0.html>
 - Version:** 1.0.11
 - External Docs:** Find out more about Swagger, URL: <http://swagger.io>
 - Servers:** URL: <https://petstore3.swagger.io/api/v3>
 - Tags:** pet (Everything about your Pets), store (Access to Petstore orders)
- Bottom Navigation:** pet (Everything about your Pets) and Find out more ↗

Json OpenApi 3.0

- ▶ Swagger también se puede exportar como json bajo la definición de OpenApi
 - ▶ Este Json se puede importar en aplicaciones como Postman, Insomnia, etc.

```
{  
  "openapi": "3.0.2",  
  "info": {  
    "title": "Swagger Petstore - OpenAPI 3.0",  
    "description": "This is a sample Pet Store Server based on the OpenAPI 3.0 specification.  
    It includes a Swagger API definition that defines the operations of the server and the  
    schema of the responses. The server uses the Apache 2.0 license.  
    You can make changes to the definition itself or to the code. In that way, we  
(https://github.com/swagger-api/swagger-petstore/blob/master/src/main/java/com/swag  
    "termsOfService": "http://swagger.io/terms/",  
    "contact": {  
      "email": "apiteam@swagger.io"  
    },  
    "license": {  
      "name": "Apache 2.0",  
      "url": "http://www.apache.org/licenses/LICENSE-2.0.html"  
    },  
    "version": "1.0.19"  
  },  
  "externalDocs": {  
    "description": "Find out more about Swagger",  
    "url": "http://swagger.io"  
  },  
  "servers": [  
    {  
      "url": "https://petstore.swagger.io/"  
    }  
  ]  
}
```

<https://petstore3.swagger.io/api/v3/openapi.json>

Swagger en Java: SpringDoc

- ▶ Librería que genera un swagger de nuestra aplicación
- ▶ Su uso básico es muy sencillo, con solo agregar la librería ya funciona
- ▶ Se puede agregar más información a través de anotaciones en nuestro código
- ▶ Levanta una UI a través de la cual también se pueden consumir los endpoints
- ▶ También genera el Json de OpenApi para importar las definiciones a Postman

```
<dependency>
    <groupId>org.springdoc</groupId>
    <artifactId>springdoc-openapi-starter-webmvc-ui</artifactId>
    <version>2.6.0</version>
</dependency>
```

Anotaciones Complementarias

- ▶ @Tag - Da información sobre un controlador
- ▶ @Operation - Da información sobre un endpoint
- ▶ @ApiResponse - Da información sobre un response
- ▶ @RequestBody (La anotación de swagger) - Da información sobre un request body
- ▶ @Parameter - Da información sobre un parámetro de un request
- ▶ @SecurityScheme - Define tipos de autenticación para la aplicación
- ▶ @SecurityRequirement - Da información sobre la autenticación de un endpoint
- ▶ @OpenApiDefinition - Da información sobre nuestra aplicación

Swagger Generado

<http://localhost:8080/swagger-ui.html>

TTPS Api OAS 3.0

</v3/api-docs>

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus tempus convallis tincidunt. Donec condimentum tempor dui a pellentesque. Nulla ut nulla vitae risus tristique consequat tincidunt nec sapien. Nullam non imperdiet nisi. Donec malesuada vitae urna vel tempus. Nunc ac pretium velit. Sed vulputate, leo vel posuere aliquet, massa orci iaculis nisi, ut sollicitudin lacus tortor vitae diam.

Servers <http://localhost:8080 - Generated server url> [Authorize](#)

Menu Controller CRUD Endpoints for menu [^](#)

PUT /menus Update a Menu [🔓](#) [▼](#)

POST /menus Create a Menu [🔓](#) [▼](#)

DELETE /menus/{uuid} Deletes a Menu [🔓](#) [▼](#)

user-controller [^](#)

PUT /users [▼](#)

Bibliografia

- ▶ Documentación https://swagger.io/docs/specification/v3_0/about/
- ▶ Editor Online <https://editor.swagger.io/>
- ▶ Ejemplo UI <https://petstore3.swagger.io/>
- ▶ SpringDoc <https://springdoc.org/>
- ▶ Baeldung <https://www.baeldung.com/spring-rest-openapi-documentation>
- ▶ Repositorio Ejemplo <https://github.com/tomasdozo/ttps-swagger>