



Edge Fundamentals

Introduction to OpenAPI Specification

“The Open API Initiative (OAI) is focused on creating, evolving and promoting a vendor neutral API Description Format based on the Swagger Specification”

For more info about OAI, see <https://openapis.org>

OpenAPI Specification (OAS)

- An API is an interface between the provider of some backend system(s) who wants to expose a set of services and the consumers of those services who want to do something with them
- Many API providers describe their APIs via informal mechanisms - for example a markdown document that shows typical requests and the responses. An alternative is to formally specify a “contract” for the interface, which describes all of the requests and responses.
- There have been multiple proposed standards for describing APIs, but the most popular is called [OpenAPI Specification](#) (The OpenAPI Specification was formerly known as Swagger).
- An OpenAPI Specification uses a standard format to describe a RESTful API. Written in either JSON or YAML format, an OpenAPI Specification is machine readable, but is also easy for humans to read and understand.
- The specification describes such elements of an API as its base path, paths and verbs, headers, query parameters, content types, response descriptions, and more. In addition, an OpenAPI Specification is commonly used to generate API documentation

OpenAPI Specification (OAS)

- An API described via an OpenAPI spec document allows the API provider and the API consumer to agree on how the API behaves.
- Google (and Apigee) are key contributing members of and has partnered with a number of other companies to help drive the OpenAPI spec and contribute open source software to the community.
- This is a partial list of the tools that Apigee has created, open-sourced, or contributed to related to API-first design, OpenAPI spec, or API deployment:
 - [a127](#) - a toolkit for modeling and building rich, enterprise-class APIs in Node.js on your laptop.
 - [Swagger.io editor](#) - web-based editor is the basis for the ones used in the above two projects, but it also includes code generators for a number of other languages.
 - [apigee2openapi](#) - a tool that generates an OpenAPI spec document from an existing API Proxy defined in Apigee Edge.
- There are a number of JSON and YAML example specifications that you can download from the [OpenAPI Specification repository](#).

Edge and OAS

The screenshot shows a web application interface for 'Ilynnch Personal Space'. The top navigation bar includes a user profile icon, the name 'Ilynnch', and a 'Home' link. A left sidebar contains a 'DEVELOP' section with a search bar and a '+ Spec' button. The main content area features a large heading 'Create your first API Spec' and a paragraph explaining the benefits of OpenAPI Specifications. A 'Get started' button is located at the bottom of the main content area.

Ilynnch
Personal Space

Home

DEVELOP

Build modern, scalable APIs for mobile apps and the web

Specs

API Projects


Q

+ Spec

Create your first API Spec

An OpenAPI Specification can generate documentation, define how your API is consumed, and control how traffic is shaped. Creating a brand new API? Use a spec to design it before you build it. Learn more.

Get started

<div><div>fo</div><div>+ Spec ▾</div></div>		
NAME	DESCRIPTION	MODIFIED ↓
 foodcartz	Manage food carts.	3 minutes ago

Additional reading

Open API Initiative

<https://www.openapis.org/>

OpenAPI Specification

<https://github.com/OAI/OpenAPI-Specification/blob/master/versions/2.0.md>

OpenAPI Wiki

<https://github.com/OAI/OpenAPI-Specification/wiki>

Pet store Example

<http://petstore.swagger.io/>

Lab

Please follow the steps provided [here](#)

THANK YOU