openapi

for documentarians

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Why OpenAPI?

A standard way to define an HTTP API for use by others - both humans and machines
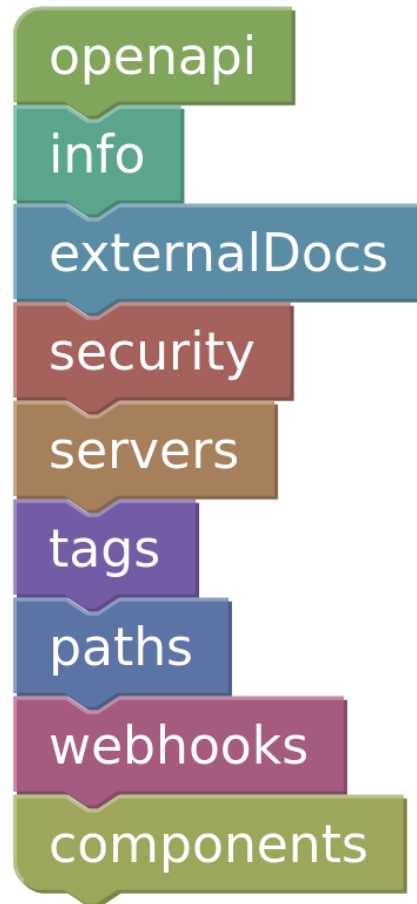
- Widely supported open standard
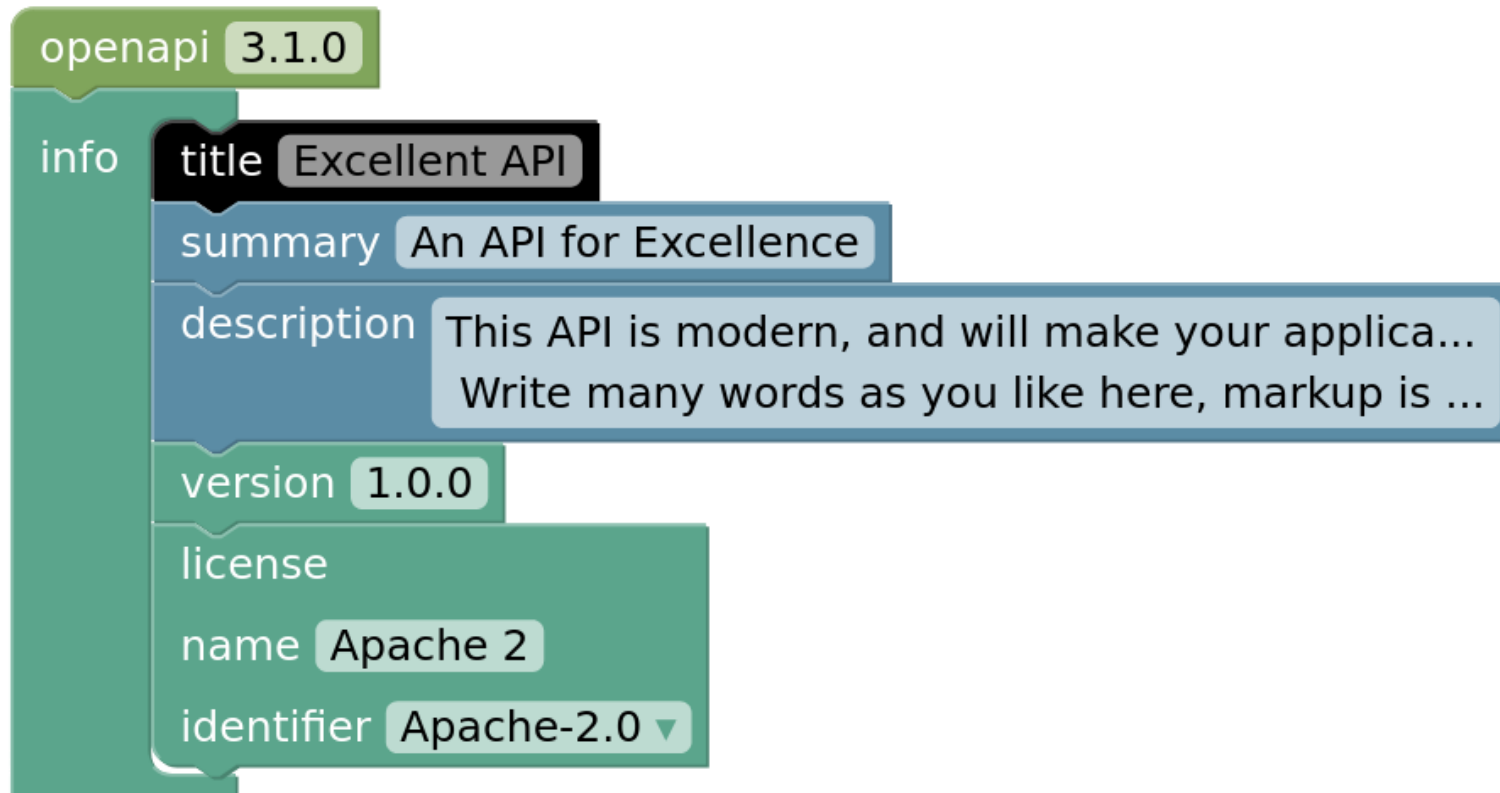- Actively developed in the open

API lifecycle

Design → Build → Publish

Get to know OpenAPI

OpenAPI structure

OpenAPI info

Overview and metadata section

OpenAPI YAML

```yaml
openapi: 3.1.0
info:
  title: Excellent API
  summary: An API for Excellence
  description: >
    This API is modern, and will make your applications 67% more
    excellent. Write as many words as you like here, markup
    is also supported.
  version: 1.0.0
  license:
    name: Apache 2
    identifier: Apache-2.0
externalDocs:
  url: https://example.com/docs
  description: Read more about this API, tutorials, and libraries
```
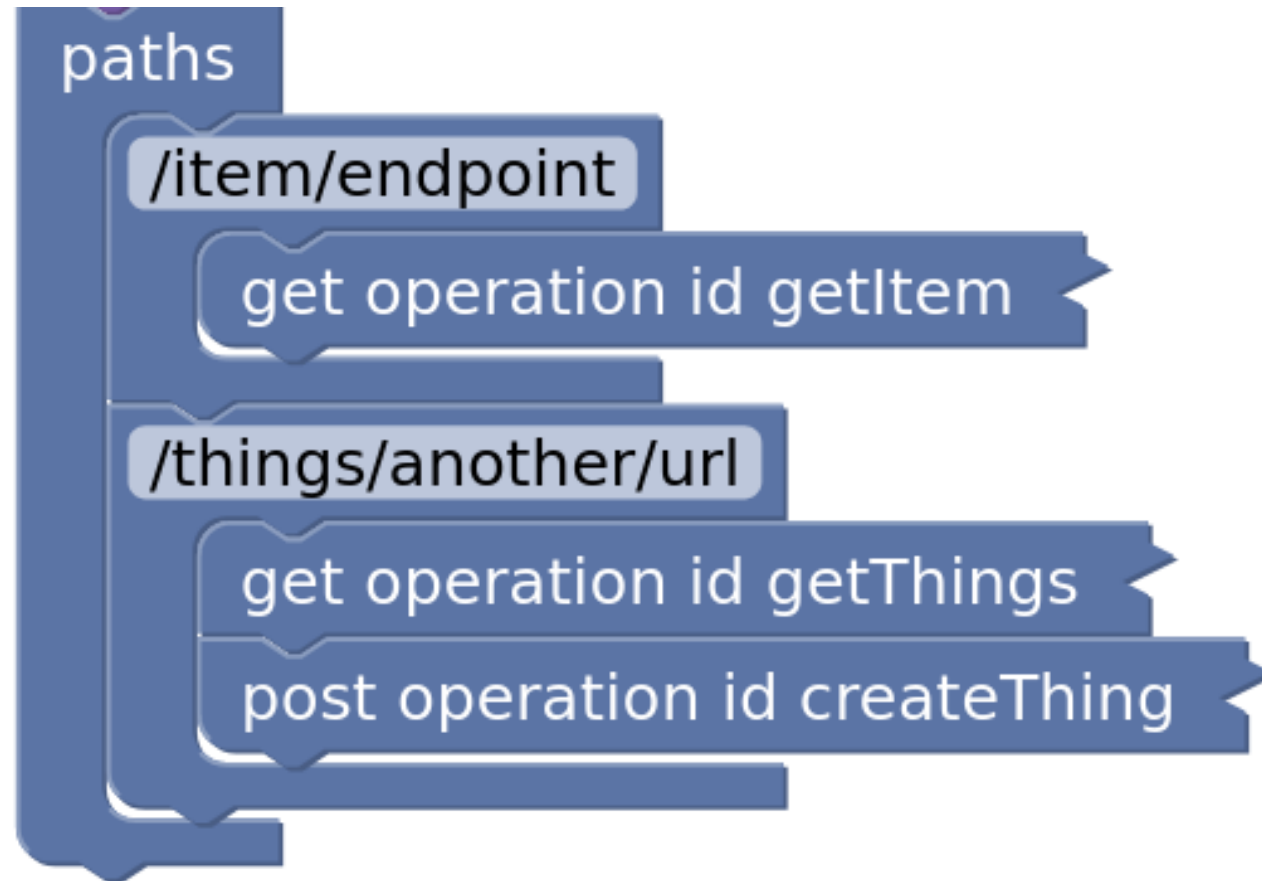
Markdown in OpenAPI

OpenAPI `description` fields support CommonMark.
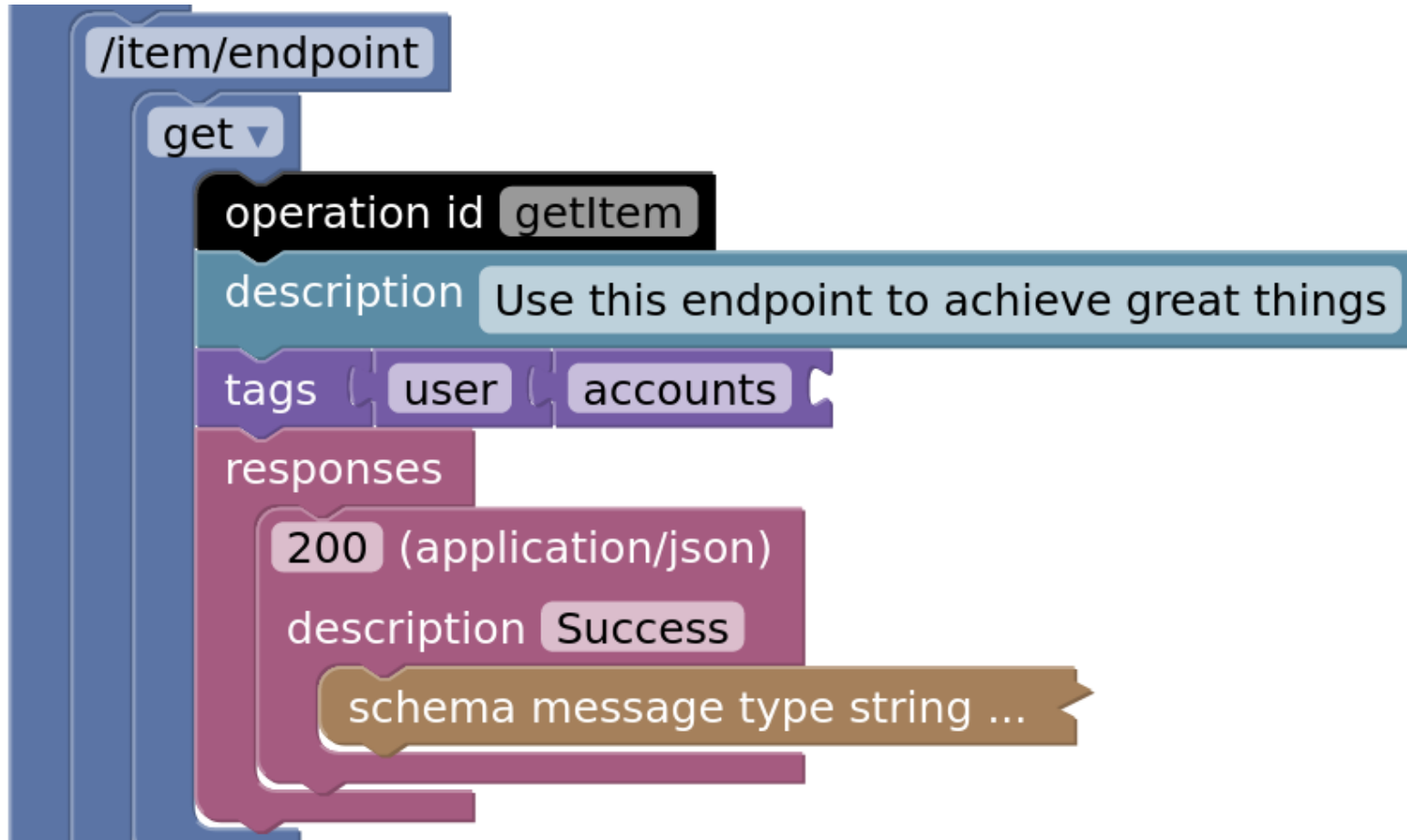
In the description field, you may:

- use Markdown
- start with `>` to allow linebreaks that will not be rendered
- start with `|` to preserve whitespace

OpenAPI paths
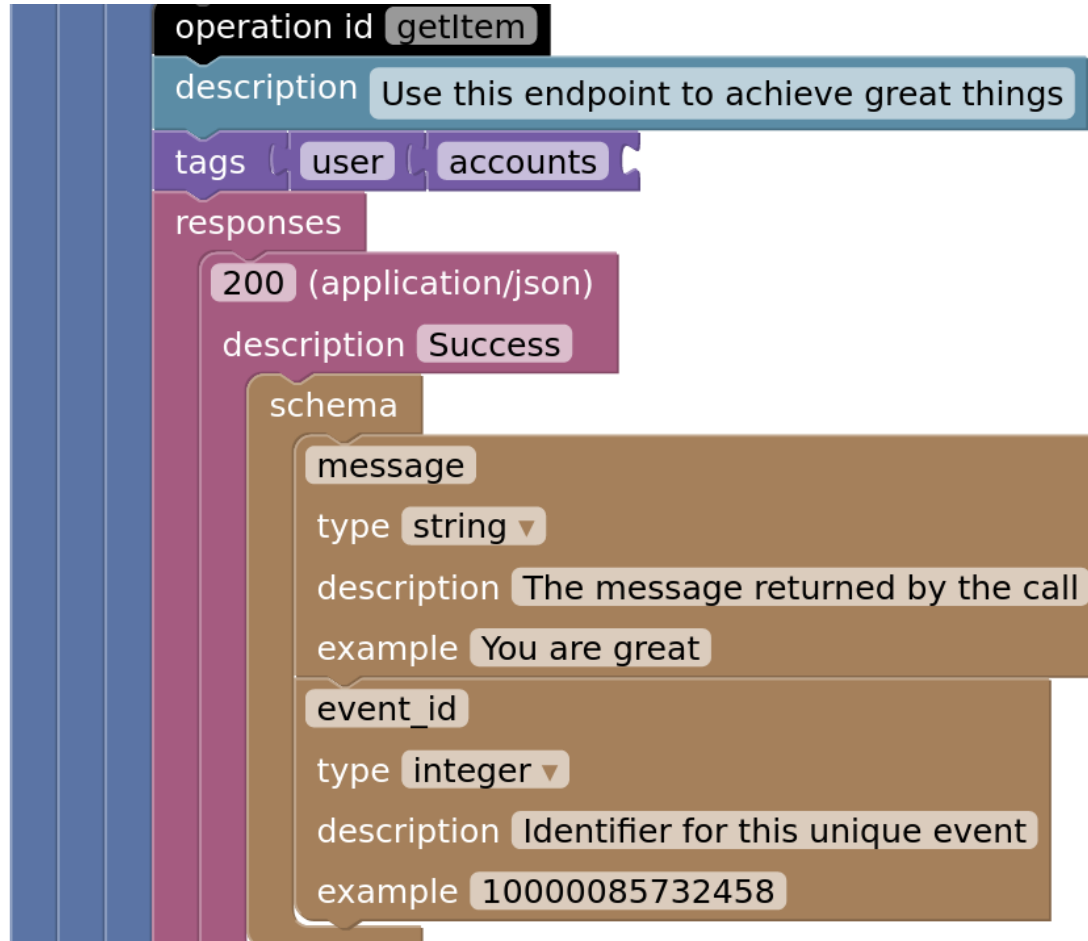
OpenAPI paths

/item/endpoint

get ▾

operation id getItem

description Use this endpoint to achieve great things

tags user accounts

responses

200 (application/json)

description Success

schema message type string ...

OpenAPI schemas

Schema examples

Give meaningful examples for every parameter/schema

```
Message:
  type: string
  description: The message returned by the call
  example: You are great
```
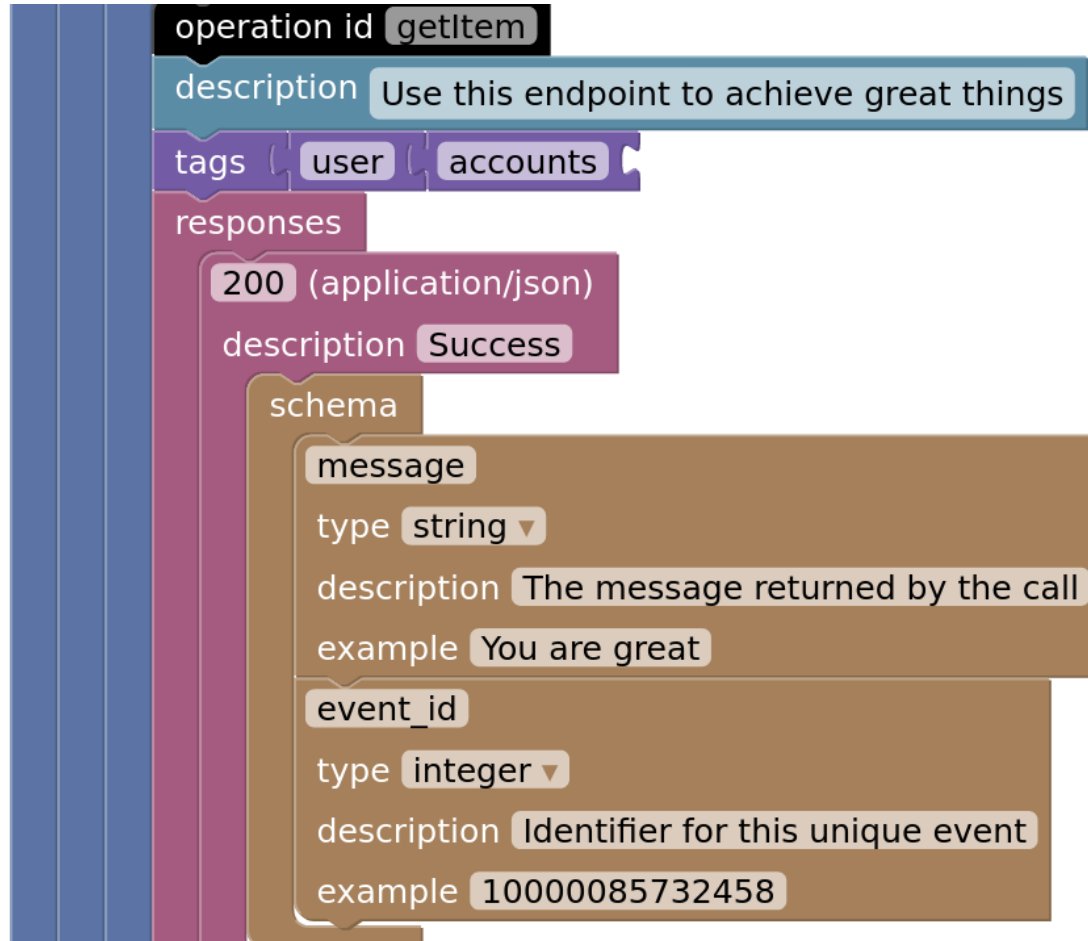
(Bonus points for making people smile!)
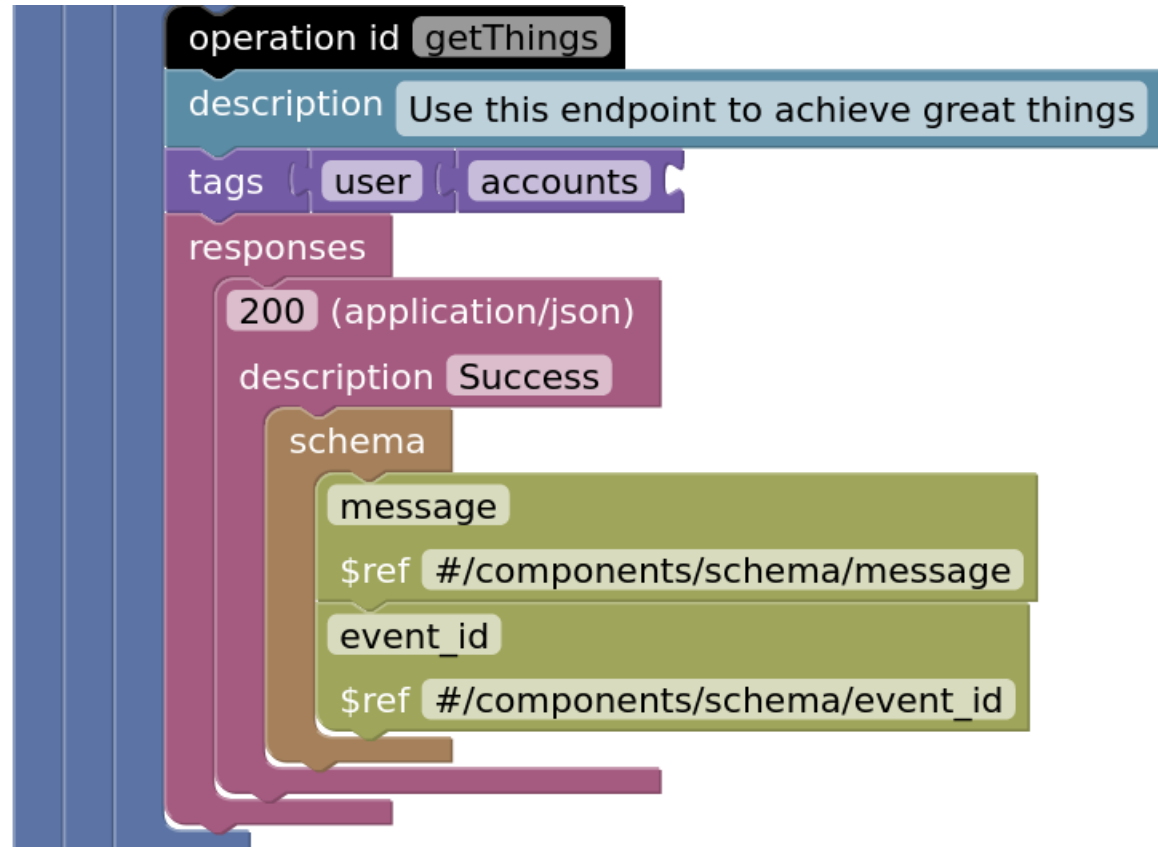
Response examples

Responses allow multiple named examples

```yaml
examples:
  registration:
    description: "User registration"
    value:
      {"message": "New user 22 registered", "event_id": 100007892345}
  login:
    description: "User login"
    value:
      {"message": "User 17 logged in", "event_id": 100007892345}
```

OpenAPI schemas

operation id getItem
description Use this endpoint to achieve great things
tags user accounts
responses
200 (application/json)
description Success
schema
message
type string ▾
description The message returned by the call
example You are great
event_id
type integer ▾
description Identifier for this unique event
example 10000085732458

OpenAPI references

operation id getThings
description Use this endpoint to achieve great things
tags user accounts
responses
200 (application/json)
description Success
schema
message
$ref #/components/schema/message
event_id
$ref #/components/schema/event_id

OpenAPI components

Tools for OpenAPI

https://openapi.tools/

OpenAPI editors

The best editor is the one you know

- Programmers' editor, with plugins
- Graphical editors

OpenAPI governance

Quality standards, consistently enforced

- Agree written standards
- Humans to check changes
- CI (continuous integration) for all changes
- Start small

OpenAPI documentation

Read the docs for your docs!

- Pull request previews help early feedback
- Build/deploy should be fast and often
- Track your key metrics (e.g. views)

API Documentarians

Postman State of the API report

55% of respondents cited "Lack of Documentation" as the biggest obstacle to consuming APIs

https://www.postman.com/state-of-api/

Resources

- https://lornajane.net
- https://redocly.com
- https://openapi.tools
- https://www.postman.com/state-of-api/