Metadata and Docs URLs

You can customize several metadata configurations in your **FastAPI** application.

Metadata for API

You can set the following fields that are used in the OpenAPI specification and the automatic API docs UIs:

<table>
<tr><th>Parameter</th><th>Type</th><th>Description</th></tr>
<tr><td><code>title</code></td><td><code>str</code></td><td>The title of the API.</td></tr>
<tr><td><code>summary</code></td><td><code>str</code></td><td>A short summary of the API. Available since OpenAPI 3.1.0, FastAPI 0.99.0.</td></tr>
<tr><td><code>description</code></td><td><code>str</code></td><td>A short description of the API. It can use Markdown.</td></tr>
<tr><td><code>version</code></td><td><code>string</code></td><td>The version of the API. This is the version of your own application, not of OpenAPI. For example <code>2.5.0</code> .</td></tr>
<tr><td><code>terms_of_service</code></td><td><code>str</code></td><td>A URL to the Terms of Service for the API. If provided, this has to be a URL.</td></tr>
<tr><td><code>contact</code></td><td><code>dict</code></td><td>The contact information for the exposed API. It can contain several fields.
▸ <code>contact</code> fields
<table>
<tr><th>Parameter</th><th>Type</th><th>Description</th></tr>
<tr><td><code>name</code></td><td><code>str</code></td><td>The identifying name of the contact person/organization.</td></tr>
<tr><td><code>url</code></td><td><code>str</code></td><td>The URL pointing to the contact information. MUST be in the format of a URL.</td></tr>
<tr><td><code>email</code></td><td><code>str</code></td><td>The email address of the contact person/organization. MUST be in the format of an email address.</td></tr>
</table></td></tr>
<tr><td><code>license_info</code></td><td><code>dict</code></td><td>The license information for the exposed API. It can contain several fields.
▸ <code>license_info</code> fields
<table>
<tr><th>Parameter</th><th>Type</th><th>Description</th></tr>
<tr><td><code>name</code></td><td><code>str</code></td><td><b>REQUIRED</b> (if a <code>license_info</code> is set). The license name used for the API.</td></tr>
<tr><td><code>identifier</code></td><td><code>str</code></td><td>An SPDX license expression for the API. The <code>identifier</code> field is mutually exclusive of the <code>url</code> field. Available since OpenAPI 3.1.0, FastAPI 0.99.0.</td></tr>
<tr><td><code>url</code></td><td><code>str</code></td><td>A URL to the license used for the API. MUST be in the format of a URL.</td></tr>
</table></td></tr>
</table>

You can set them as follows:

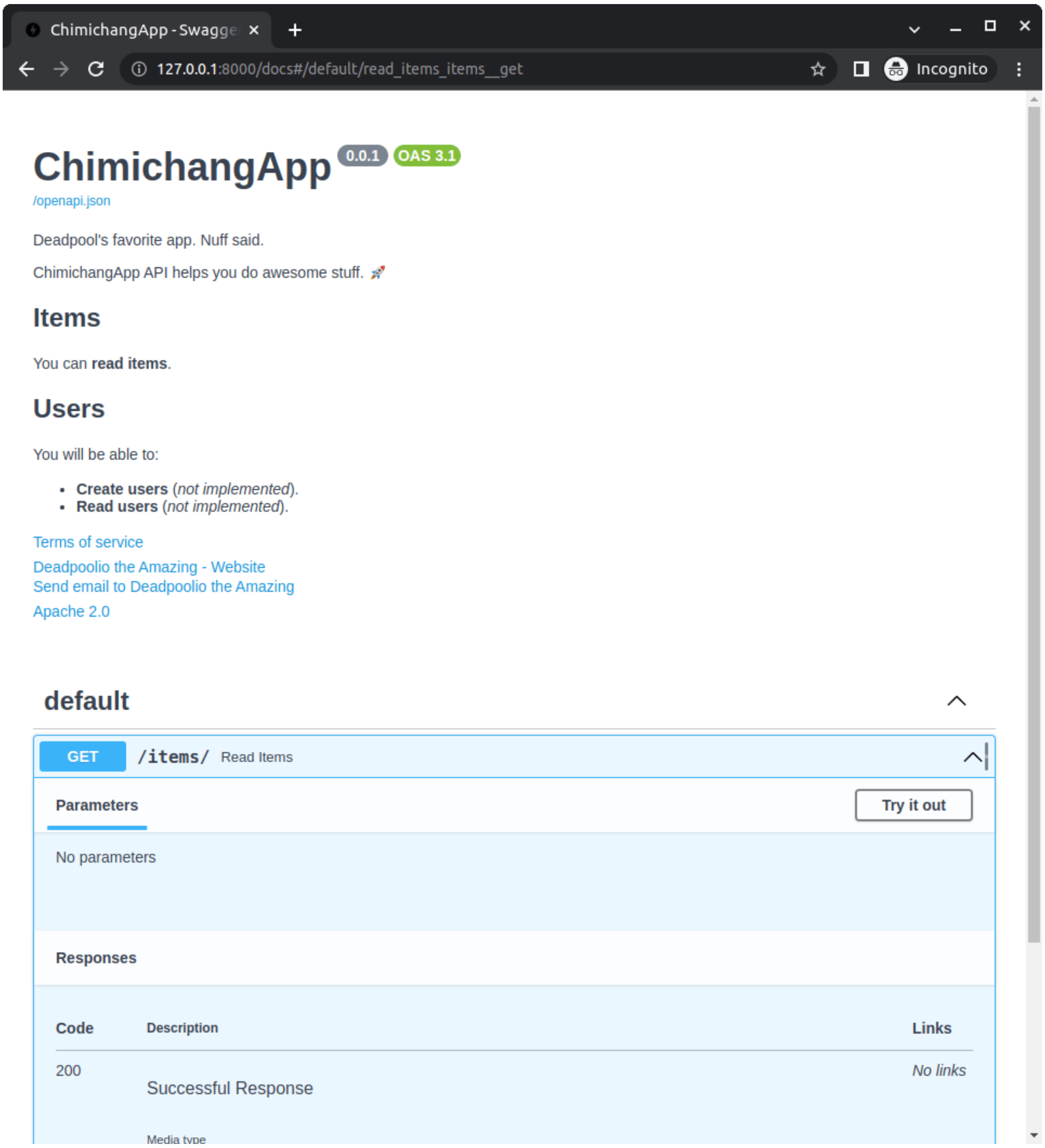
Python 3.8+

```python
from fastapi import FastAPI

description = """
ChimichangApp API helps you do awesome stuff. 🚀

## Items

You can **read items**.

## Users

You will be able to:

* **Create users** (_not implemented_).
* **Read users** (_not implemented_).
"""

app = FastAPI(
    title="ChimichangApp",
    description=description,
    summary="Deadpool's favorite app. Nuff said.",
    version="0.0.1",
    terms_of_service="http://example.com/terms/",
    contact={
        "name": "Deadpoolio the Amazing",
        "url": "http://x-force.example.com/contact/",
        "email": "dp@x-force.example.com",
    },
    license_info={
        "name": "Apache 2.0",
        "url": "https://www.apache.org/licenses/LICENSE-2.0.html",
    },
)


@app.get("/items/")
async def read_items():
    return [{"name": "Katana"}]
```

Tip

You can write Markdown in the `description` field and it will be rendered in the output.

With this configuration, the automatic API docs would look like:



ChimichangApp 0.0.1 OAS 3.1

/openapi.json

Deadpool's favorite app. Nuff said.

ChimichangApp API helps you do awesome stuff. 🚀

Items

You can **read items**.

Users

You will be able to:

- **Create users** (*not implemented*).
- **Read users** (*not implemented*).

Terms of service
Deadpoolio the Amazing - Website
Send email to Deadpoolio the Amazing
Apache 2.0

No parameters

Responses

Code	Description	Links
200	Successful Response Media type	*No links*

License identifier

Since OpenAPI 3.1.0 and FastAPI 0.99.0, you can also set the `license_info` with an `identifier` instead of a `url`.

For example:

Python 3.8+

```
from fastapi import FastAPI

description = """
ChimichangApp API helps you do awesome stuff. 🚀

## Items

You can **read items**.

## Users

You will be able to:

* **Create users** (_not implemented_).
* **Read users** (_not implemented_).
"""
```

```
app = FastAPI(
    title="ChimichangApp",
    description=description,
    summary="Deadpool's favorite app. Nuff said.",
    version="0.0.1",
    terms_of_service="http://example.com/terms/",
    contact={
        "name": "Deadpoolio the Amazing",
        "url": "http://x-force.example.com/contact/",
        "email": "dp@x-force.example.com",
    },
    license_info={
        "name": "Apache 2.0",
        "identifier": "MIT",
    },
)


@app.get("/items/")
async def read_items():
    return [{"name": "Katana"}]
```

Metadata for tags

You can also add additional metadata for the different tags used to group your path operations with the parameter `openapi_tags` .

It takes a list containing one dictionary for each tag.

Each dictionary can contain:

- `name` (**required**): a `str` with the same tag name you use in the `tags` parameter in your *path operations* and `APIRouter` s.
- `description` : a `str` with a short description for the tag. It can have Markdown and will be shown in the docs UI.
- `externalDocs` : a `dict` describing external documentation with:
    - `description` : a `str` with a short description for the external docs.
    - `url` (**required**): a `str` with the URL for the external documentation.

Create metadata for tags

Let's try that in an example with tags for `users` and `items` .

Create metadata for your tags and pass it to the `openapi_tags` parameter:

Python 3.8+

```
from fastapi import FastAPI

tags_metadata = [
    {
        "name": "users",
        "description": "Operations with users. The **login** logic is also here.",
    },
    {
        "name": "items",
        "description": "Manage items. So _fancy_ they have their own docs.",
        "externalDocs": {
            "description": "Items external docs",
            "url": "https://fastapi.tiangolo.com/",
        },
    },
]

app = FastAPI(openapi_tags=tags_metadata)


@app.get("/users/", tags=["users"])
async def get_users():
    return [{"name": "Harry"}, {"name": "Ron"}]


@app.get("/items/", tags=["items"])
async def get_items():
    return [{"name": "wand"}, {"name": "flying broom"}]
```

Notice that you can use Markdown inside of the descriptions, for example "login" will be shown in bold (**login**) and "fancy" will be shown in italics (*fancy*).

Tip

You don't have to add metadata for all the tags that you use.

Use your tags

Use the `tags` parameter with your *path operations* (and `APIRouter` s) to assign them to different tags:

Python 3.8+

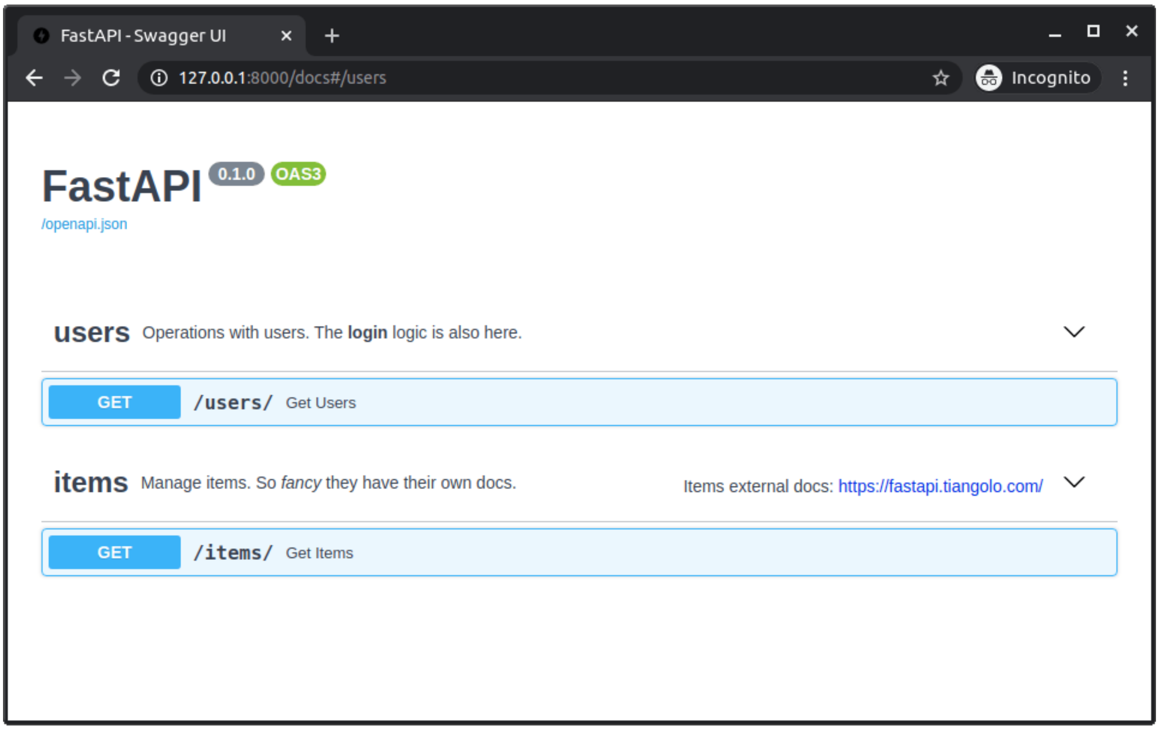
```python
from fastapi import FastAPI

tags_metadata = [
    {
        "name": "users",
        "description": "Operations with users. The **login** logic is also here.",
    },
    {
        "name": "items",
        "description": "Manage items. So _fancy_ they have their own docs.",
        "externalDocs": {
            "description": "Items external docs",
            "url": "https://fastapi.tiangolo.com/",
        },
    },
]

app = FastAPI(openapi_tags=tags_metadata)


@app.get("/users/", tags=["users"])
async def get_users():
    return [{"name": "Harry"}, {"name": "Ron"}]


@app.get("/items/", tags=["items"])
async def get_items():
    return [{"name": "wand"}, {"name": "flying broom"}]
```

Info

Read more about tags in Path Operation Configuration.

Check the docs

Now, if you check the docs, they will show all the additional metadata:



Operations with users. The **login** logic is also here.

Manage items. So *fancy* they have their own docs.

Items external docs: https://fastapi.tiangolo.com/

Order of tags

The order of each tag metadata dictionary also defines the order shown in the docs UI.

For example, even though `users` would go after `items` in alphabetical order, it is shown before them, because we added their metadata as the first dictionary in the list.

OpenAPI URL

By default, the OpenAPI schema is served at `/openapi.json`.

But you can configure it with the parameter `openapi_url`.

For example, to set it to be served at `/api/v1/openapi.json`:

Python 3.8+

```
from fastapi import FastAPI

app = FastAPI(openapi_url="/api/v1/openapi.json")


@app.get("/items/")
async def read_items():
    return [{"name": "Foo"}]
```

If you want to disable the OpenAPI schema completely you can set `openapi_url=None` , that will also disable the documentation user interfaces that use it.

Docs URLs

You can configure the two documentation user interfaces included:

- **Swagger UI**: served at `/docs` .
  - You can set its URL with the parameter `docs_url` .
  - You can disable it by setting `docs_url=None` .
- **ReDoc**: served at `/redoc` .
  - You can set its URL with the parameter `redoc_url` .
  - You can disable it by setting `redoc_url=None` .

For example, to set Swagger UI to be served at `/documentation` and disable ReDoc:

Python 3.8+

```
from fastapi import FastAPI

app = FastAPI(docs_url="/documentation", redoc_url=None)


@app.get("/items/")
async def read_items():
    return [{"name": "Foo"}]
```