

Release Notes

Latest Changes

0.75.1

Translations

- 🌐 Start Dutch translations. PR [#4703](#) by [@tiangolo](#).
- 🌐 Start Persian/Farsi translations. PR [#4243](#) by [@aminalaee](#).
- ✎ Reword sentence about handling errors. PR [#1993](#) by [@khuhrproeza](#).

Internal

- 👤 Update FastAPI People. PR [#4752](#) by [@github-actions\[bot\]](#).
- ⚖️ Temporarily remove typer-cli from dependencies and upgrade Black to unblock Pydantic CI. PR [#4754](#) by [@tiangolo](#).
- 🔧 Add configuration to notify Dutch translations. PR [#4702](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#4699](#) by [@github-actions\[bot\]](#).
- 🐛 Fix FastAPI People generation to include missing file in commit. PR [#4695](#) by [@tiangolo](#).
- 🔧 Update Classiq sponsor links. PR [#4688](#) by [@tiangolo](#).
- 🔧 Add Classiq sponsor. PR [#4671](#) by [@tiangolo](#).
- 📄 Add Jina's QA Bot to the docs to help people that want to ask quick questions. PR [#4655](#) by [@tiangolo](#) based on original PR [#4626](#) by [@hanxiao](#).

0.75.0

Features

- ✨ Add support for custom `generate_unique_id_function` and docs for generating clients. New docs: [Advanced - Generate Clients](#). PR [#4650](#) by [@tiangolo](#).

0.74.1

Features

- ✨ Include route in scope to allow middleware and other tools to extract its information. PR [#4603](#) by [@tiangolo](#).

0.74.0

Breaking Changes

- ✨ Update internal `AsyncExitStack` to fix context for dependencies with `yield`. PR [#4575](#) by [@tiangolo](#).

Dependencies with `yield` can now catch `HTTPException` and custom exceptions. For example:

```
async def get_database():
    with Session() as session:
        try:
            yield session
        except HTTPException:
```

```

        session.rollback()
        raise
    finally:
        session.close()

```

After the dependency with `yield` handles the exception (or not) the exception is raised again. So that any exception handlers can catch it, or ultimately the default internal `ServerErrorMiddleware`.

If you depended on exceptions not being received by dependencies with `yield`, and receiving an exception breaks the code after `yield`, you can use a block with `try` and `finally`:

```

async def do_something():
    try:
        yield something
    finally:
        some_cleanup()

```

...that way the `finally` block is run regardless of any exception that might happen.

Features

- The same PR [#4575](#) from above also fixes the `contextvars` context for the code before and after `yield`. This was the main objective of that PR.

This means that now, if you set a value in a context variable before `yield`, the value would still be available after `yield` (as you would intuitively expect). And it also means that you can reset the context variable with a token afterwards.

For example, this works correctly now:

```

from contextvars import ContextVar
from typing import Any, Dict, Optional

legacy_request_state_context_var: ContextVar[Optional[Dict[str, Any]]] = ContextVar(
    "legacy_request_state_context_var", default=None
)

async def set_up_request_state_dependency():
    request_state = {"user": "deadpond"}
    contextvar_token = legacy_request_state_context_var.set(request_state)
    yield request_state
    legacy_request_state_context_var.reset(contextvar_token)




```

...before this change it would raise an error when resetting the context variable, because the `contextvars` context was different, because of the way it was implemented.

Note: You probably don't need `contextvars`, and you should probably avoid using them. But they are powerful and useful in some advanced scenarios, for example, migrating from code that used Flask's `g` semi-global variable.




Technical Details: If you want to know more of the technical details you can check out the PR description [#4575](#).

Internal


-  Add Striveworks sponsor. PR [#4596](#) by [@tiangolo](#).
-  Only build docs on push when on master to avoid duplicate runs from PRs. PR [#4564](#) by [@tiangolo](#).
-  Update FastAPI People. PR [#4502](#) by [@github-actions\[bot\]](#).

0.73.0




Features

-  Add support for declaring `UploadFile` parameters without explicit `File()`. PR [#4469](#) by [@tiangolo](#). New docs: [Request Files - File Parameters with UploadFile](#).
-  Add support for tags with Enums. PR [#4468](#) by [@tiangolo](#). New docs: [Path Operation Configuration - Tags with Enums](#).
-  Allow hiding from OpenAPI (and Swagger UI) `Query`, `Cookie`, `Header`, and `Path` parameters. PR [#3144](#) by [@astraldawn](#). New docs: [Query Parameters and String Validations - Exclude from OpenAPI](#).



Docs

-  Tweak and improve docs for Request Files. PR [#4470](#) by [@tiangolo](#).

Fixes


-  Fix bug preventing to use OpenAPI when using tuples. PR [#3874](#) by [@victorbenichoux](#).
-  Prefer custom encoder over defaults if specified in `jsonable_encoder`. PR [#2061](#) by [@viveksunder](#).
 -  Duplicate PR to trigger CI. PR [#4467](#) by [@tiangolo](#).

Internal


-  Fix docs dependencies cache, to get the latest Material for MkDocs. PR [#4466](#) by [@tiangolo](#).
-  Add sponsor Dropbase. PR [#4465](#) by [@tiangolo](#).

0.72.0





Features

-  Enable configuring Swagger UI parameters. Original PR [#2568](#) by [@jmriebo](#). Here are the new docs: [Configuring Swagger UI](#).


Docs

-  Update Python Types docs, add missing 3.6 / 3.9 example. PR [#4434](#) by [@tiangolo](#).

Translations

-  Update Chinese translation for `docs/help-fastapi.md`. PR [#3847](#) by [@jaystone776](#).
-  Fix Korean translation for `docs/ko/docs/index.md`. PR [#4195](#) by [@kty4119](#).
-  Add Polish translation for `docs/pl/docs/index.md`. PR [#4245](#) by [@MicroPanda123](#).
-  Add Chinese translation for `docs\tutorial\path-operation-configuration.md`. PR [#3312](#) by [@jaystone776](#).

Internal

-  Enable MkDocs Material Insiders' `content.tabs.link`. PR [#4399](#) by [@tiangolo](#).

0.71.0

Features

- 🌟 Add docs and tests for Python 3.9 and Python 3.10. PR [#3712](#) by [@tiangolo](#).
 - You can start with [Python Types Intro](#), it explains what changes between different Python versions, in Python 3.9 and in Python 3.10.
 - All the FastAPI docs are updated. Each code example in the docs that could use different syntax in Python 3.9 or Python 3.10 now has all the alternatives in tabs.
- 📖 Upgrade Starlette to 0.17.1. PR [#4145](#) by [@simondale00](#).

Internal

- 👤 Update FastAPI People. PR [#4354](#) by [@github-actions\[bot\]](#).
- 🔧 Add FastAPI Trove Classifier for PyPI as now there's one 🤖. PR [#4386](#) by [@tiangolo](#).
- ⬆️ Upgrade MkDocs Material and configs. PR [#4385](#) by [@tiangolo](#).

0.70.1

There's nothing interesting in this particular FastAPI release. It is mainly to enable/unblock the release of the next version of Pydantic that comes packed with features and improvements. 😊

Fixes

- 🐛 Fix JSON Schema for dataclasses, supporting the fixes in Pydantic 1.9. PR [#4272](#) by [@PrettyWood](#).

Translations

- 🌐 Add Korean translation for `docs/tutorial/request-forms-and-files.md`. PR [#3744](#) by [@NinaHwang](#).
- 🌐 Add Korean translation for `docs/tutorial/request-files.md`. PR [#3743](#) by [@NinaHwang](#).
- 🌐 Add portuguese translation for `docs/tutorial/query-params-str-validations.md`. PR [#3965](#) by [@leandrodesouzadev](#).
- 🌐 Add Korean translation for `docs/tutorial/response-status-code.md`. PR [#3742](#) by [@NinaHwang](#).
- 🌐 Add Korean translation for Tutorial - JSON Compatible Encoder. PR [#3152](#) by [@NEONKID](#).
- 🌐 Add Korean translation for Tutorial - Path Parameters and Numeric Validations. PR [#2432](#) by [@hard-coders](#).
- 🌐 Add Korean translation for `docs/ko/docs/deployment/versions.md`. PR [#4121](#) by [@DevDae](#).
- 🌐 Fix Korean translation for `docs/ko/docs/tutorial/index.md`. PR [#4193](#) by [@kimjaeyoonn](#).
- 🔧 Add CryptAPI sponsor. PR [#4264](#) by [@tiangolo](#).
- 📖 Update `docs/tutorial/dependencies/classes-as-dependencies`: Add type of query parameters in a description of `Classes as dependencies`. PR [#4015](#) by [@0417taehyun](#).
- 🌐 Add French translation for Tutorial - First steps. PR [#3455](#) by [@Smlep](#).
- 🌐 Add French translation for `docs/tutorial/path-params.md`. PR [#3548](#) by [@Smlep](#).
- 🌐 Add French translation for `docs/tutorial/query-params.md`. PR [#3556](#) by [@Smlep](#).
- 🌐 Add Turkish translation for `docs/python-types.md`. PR [#3926](#) by [@BilalAlpaslan](#).

Internal

- 👤 Update FastAPI People. PR [#4274](#) by [@github-actions\[bot\]](#).

0.70.0

This release just upgrades Starlette to the latest version, `0.16.0`, which includes several bug fixes and some small breaking changes.

These last **three consecutive releases** are independent so that you can **migrate gradually**:

- First to FastAPI `0.68.2`, with no breaking changes, but upgrading all the sub-dependencies.
- Next to FastAPI `0.69.0`, which upgrades Starlette to `0.15.0`, with AnyIO support, and a higher chance of having breaking changes in your code.
- Finally to FastAPI `0.70.0`, just upgrading Starlette to the latest version `0.16.0` with additional bug fixes.

This way, in case there was a breaking change for your code in one of the releases, you can still benefit from the previous upgrades. ✨

Breaking Changes - Upgrade

- 📖 Upgrade Starlette to 0.16.0. PR [#4016](#) by [@tiangolo](#).

Also upgrades the ranges of optional dependencies:

- `"jinja2 >=2.11.2,<4.0.0"`
- `"itsdangerous >=1.1.0,<3.0.0"`

0.69.0

Breaking Changes - Upgrade

This release adds support for [Trio](#). ✨

It upgrades the version of Starlette to `0.15.0`, now based on [AnyIO](#), and the internal async components in **FastAPI** are now based on AnyIO as well, making it compatible with both **asyncio** and **Trio**.

You can read the docs about running [FastAPI with Trio using Hypercorn](#).







This release also removes `graphene` as an optional dependency for GraphQL. If you need to work with GraphQL, the recommended library now is [Strawberry](#). You can read the new [FastAPI with GraphQL docs](#).

Features

- ✨ Add support for Trio via AnyIO, upgrading Starlette to `0.15.0`. PR [#3372](#) by [@graingert](#).
- ➡ Remove `graphene` as an optional dependency. PR [#4007](#) by [@tiangolo](#).

Docs







- 📖 Add docs for using Trio with Hypercorn. PR [#4014](#) by [@tiangolo](#).
- ➡ Fix typos in Deployment Guide. PR [#3975](#) by [@ghandic](#).
- 📖 Update docs with pip install calls when using extras with brackets, use quotes for compatibility with Zsh. PR [#3131](#) by [@tomwei7](#).
- 📖 Add external link to article: Deploying ML Models as API Using FastAPI and Heroku. PR [#3904](#) by [@kaustubhgupta](#).
- ➡ Fix typo in file paths in `docs/en/docs/contributing.md`. PR [#3752](#) by [@NinaHwang](#).
- ➡ Fix a typo in `docs/en/docs/advanced/path-operation-advanced-configuration.md` and `docs/en/docs/release-notes.md`. PR [#3750](#) by [@saintmalik](#).
- ✏ Add a missing comma in the security tutorial. PR [#3564](#) by [@jalvaradosegura](#).
- ➡ Fix typo in `docs/en/docs/help-fastapi.md`. PR [#3760](#) by [@jaystone776](#).
- ➡ Fix typo about file path in `docs/en/docs/tutorial/bigger-applications.md`. PR [#3285](#) by [@HolyDorus](#).

-  Re-word to clarify test client in `docs/en/docs/tutorial/testing.md` . PR [#3382](#) by [@Bharat123rox](#).
-  Fix incorrect highlighted code. PR [#3325](#) by [@paxcodes](#).
-  Add external link to article: How-to deploy FastAPI app to Heroku. PR [#3241](#) by [@Jarmos-san](#).
-  Fix typo (mistranslation) in `docs/en/docs/advanced/templates.md` . PR [#3211](#) by [@oerpli](#).
-  Remove note about (now supported) feature from Swagger UI in `docs/en/docs/tutorial/request-files.md` . PR [#2803](#) by [@gsganden](#).
-  Fix typo re-word in `docs/tutorial/handling-errors.md` . PR [#2700](#) by [@graue70](#).

Translations

-  Initialize Azerbaijani translations. PR [#3941](#) by [@madatbay](#).
-  Add Turkish translation for `docs/fastapi-people.md` . PR [#3848](#) by [@BilalAlpaslan](#).

Internal

-  Add supported Python versions badge. PR [#2794](#) by [@hramezani](#).
-  Fix link in Japanese docs for `docs/ja/docs/deployment/docker.md` . PR [#3245](#) by [@utamori](#).
-  Correct DeprecationWarning config and comment in pytest settings. PR [#4008](#) by [@graingert](#).
-  Swap light/dark theme button icon. PR [#3246](#) by [@eddsalkield](#).
-  Lint only in Python 3.7 and above. PR [#4006](#) by [@tiangolo](#).
-  Add GitHub Action notify-translations config for Azerbaijani. PR [#3995](#) by [@tiangolo](#).





0.68.2

This release has **no breaking changes**. 🍷




It upgrades the version ranges of sub-dependencies to allow applications using FastAPI to easily upgrade them.

Soon there will be a new FastAPI release upgrading Starlette to take advantage of recent improvements, but as that has a higher chance of having breaking changes, it will be in a separate release.







Features

-  Increase supported version of aiofiles to suppress warnings. PR [#2899](#) by [@SnkSynthesis](#).
-  Do not require backports in Python ≥ 3.7 . PR [#1880](#) by [@FFY00](#).
-  Upgrade required Python version to $\geq 3.6.1$, needed by typing.Deque, used by Pydantic. PR [#2733](#) by [@hukkin](#).
-  Bump Uvicorn max range to 0.15.0. PR [#3345](#) by [@Kludex](#).

Docs

-  Update GraphQL docs, recommend Strawberry. PR [#3981](#) by [@tiangolo](#).
-  Re-write and extend Deployment guide: Concepts, Uvicorn, Gunicorn, Docker, Containers, Kubernetes. PR [#3974](#) by [@tiangolo](#).
-  Upgrade HTTPS guide with more explanations and diagrams. PR [#3950](#) by [@tiangolo](#).

Translations

-  Add Turkish translation for `docs/features.md` . PR [#1950](#) by [@ycd](#).
-  Add Turkish translation for `docs/benchmarks.md` . PR [#2729](#) by [@Telomeraz](#).
-  Add Turkish translation for `docs/index.md` . PR [#1908](#) by [@ycd](#).
-  Add French translation for `docs/tutorial/body.md` . PR [#3671](#) by [@Smlep](#).
-  Add French translation for `deployment/docker.md` . PR [#3694](#) by [@rjNemo](#).
-  Add Portuguese translation for `docs/tutorial/path-params.md` . PR [#3664](#) by [@FelipeSilva93](#).

- 🌐 Add Portuguese translation for `docs/deployment/https.md` . PR [#3754](#) by [@lsglucas](#).
- 🌐 Add German translation for `docs/features.md` . PR [#3699](#) by [@mawassk](#).

Internal

- 🌟 Update GitHub Action: notify-translations, to avoid a race conditions. PR [#3989](#) by [@tiangolo](#).
- 📖 Upgrade development `autoflake` , supporting multi-line imports. PR [#3988](#) by [@tiangolo](#).
- 📖 Increase dependency ranges for tests and docs: `pytest-cov`, `pytest-asyncio`, `black`, `httpx`, `sqlalchemy`, `databases`, `mkdocs-markdownextradata-plugin`. PR [#3987](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#3986](#) by [@github-actions\[bot\]](#).
- ❤️ Fix badges in README and main page. PR [#3979](#) by [@ghandic](#).
- ⬆️ Upgrade internal testing dependencies: `mypy` to version 0.910, add newly needed type packages. PR [#3350](#) by [@ArcLightSlavik](#).
- 🌟 Add Deepset Sponsorship. PR [#3976](#) by [@tiangolo](#).
- 🎨 Tweak CSS styles for shell animations. PR [#3888](#) by [@tiangolo](#).
- 🔗 Add new Sponsor Calmcode.io. PR [#3777](#) by [@tiangolo](#).

0.68.1

- 🌟 Add support for `read_with_orm_mode` , to support [SQLModel](#) relationship attributes. PR [#3757](#) by [@tiangolo](#).

Translations

- 🌐 Add Portuguese translation of `docs/fastapi-people.md` . PR [#3461](#) by [@ComicShrimp](#).
- 🌐 Add Chinese translation for `docs/tutorial/dependencies/dependencies-in-path-operation-decorators.md` . PR [#3492](#) by [@jaystone776](#).
- 🔗 Add new Translation tracking issues for German and Indonesian. PR [#3718](#) by [@tiangolo](#).
- 🌐 Add Chinese translation for `docs/tutorial/dependencies/sub-dependencies.md` . PR [#3491](#) by [@jaystone776](#).
- 🌐 Add Portuguese translation for `docs/advanced/index.md` . PR [#3460](#) by [@ComicShrimp](#).
- 🌐 Portuguese translation of `docs/async.md` . PR [#1330](#) by [@Serrones](#).
- 🌐 Add French translation for `docs/async.md` . PR [#3416](#) by [@Smlep](#).

Internal

- 🌟 Add GitHub Action: Notify Translations. PR [#3715](#) by [@tiangolo](#).
- 🌟 Update computation of FastAPI People and sponsors. PR [#3714](#) by [@tiangolo](#).
- 🌟 Enable recent Material for MkDocs Insiders features. PR [#3710](#) by [@tiangolo](#).
- 🔥 Remove/clean extra imports from examples in docs for features. PR [#3709](#) by [@tiangolo](#).
- ⚙️ Update docs library to include sources in Markdown. PR [#3648](#) by [@tiangolo](#).
- ⬆️ Enable tests for Python 3.9. PR [#2298](#) by [@Kludex](#).
- 👤 Update FastAPI People. PR [#3642](#) by [@github-actions\[bot\]](#).

0.68.0

Features

- 🌟 Add support for extensions and updates to the OpenAPI schema in each *path operation*. New docs: [FastAPI Path Operation Advanced Configuration - OpenAPI Extra](#). Initial PR [#1922](#) by [@edouardjp](#).
- 🌟 Add additional OpenAPI metadata parameters to `FastAPI` class, shown on the automatic API docs UI. New docs: [Metadata and Docs URLs](#). Initial PR [#1812](#) by [@dkreeft](#).

- 🌟 Add `description` parameter to all the security scheme classes, e.g. `APIKeyQuery(name="key", description="A very cool API key")` . PR [#1757](#) by [@hylkepostma](#).
- 🌟 Update OpenAPI models, supporting recursive models and extensions. PR [#3628](#) by [@tiangolo](#).
- 🌟 Import and re-export data structures from Starlette, used by Request properties, on `fastapi.datastructures` . Initial PR [#1872](#) by [@jamescurtin](#).

Docs

- 📖 Update docs about async and response-model with more gender neutral language. PR [#1869](#) by [@Edward-Knight](#).

Translations

- 🌐 Add Russian translation for `docs/python-types.md` . PR [#3039](#) by [@dukkee](#).
- 🌐 Add Chinese translation for `docs/tutorial/dependencies/index.md` . PR [#3489](#) by [@jaystone776](#).
- 🌐 Add Russian translation for `docs/external-links.md` . PR [#3036](#) by [@dukkee](#).
- 🌐 Add Chinese translation for `docs/tutorial/dependencies/global-dependencies.md` . PR [#3493](#) by [@jaystone776](#).
- 🌐 Add Portuguese translation for `docs/deployment/versions.md` . PR [#3618](#) by [@lsglucas](#).
- 🌐 Add Japanese translation for `docs/tutorial/security/oauth2-jwt.md` . PR [#3526](#) by [@sattosan](#).

Internal

- ✅ Add the `docs_src` directory to test coverage and update tests. Initial PR [#1904](#) by [@Kludex](#).
- 🛠 Add new GitHub templates with forms for new issues. PR [#3612](#) by [@tiangolo](#).
- 📖 Add official FastAPI Twitter to docs: [@fastapi](#). PR [#3578](#) by [@tiangolo](#).

0.67.0

Features

- 🌟 Add support for `dataclasses` in request bodies and `response_model` . New documentation: [Advanced User Guide - Using Dataclasses](#). PR [#3577](#) by [@tiangolo](#).
- 🌟 Support `dataclasses` in responses. PR [#3576](#) by [@tiangolo](#), continuation from initial PR [#2722](#) by [@amitlissack](#).

Docs

- 📖 Add external link: How to Create A Fake Certificate Authority And Generate TLS Certs for FastAPI. PR [#2839](#) by [@aitoehigie](#).
- ➡ Fix code highlighted line in: `body-nested-models.md` . PR [#3463](#) by [@jaystone776](#).
- ➡ Fix typo in `body-nested-models.md` . PR [#3462](#) by [@jaystone776](#).
- ➡ Fix typo "might me" -> "might be" in `docs/en/docs/tutorial/schema-extra-example.md` . PR [#3362](#) by [@dbrakman](#).
- 📖 Add external link: Building simple E-Commerce with NuxtJS and FastAPI. PR [#3271](#) by [@ShahriyarR](#).
- 📖 Add external link: Serve a machine learning model using Sklearn, FastAPI and Docker. PR [#2974](#) by [@rodrigo-arenas](#).
- 🛠 Fix typo on docstring in `datastructures` file. PR [#2887](#) by [@Kludex](#).
- 📖 Add External Link: Deploy FastAPI on Ubuntu and Serve using Caddy 2 Web Server. PR [#3572](#) by [@tiangolo](#).
- 📖 Add External Link, replaces #1898. PR [#3571](#) by [@tiangolo](#).

Internal

- 🐞 Improve style for sponsors, add radius border. PR [#2388](#) by [@Kludex](#).
- 🤖 Update GitHub Action latest-changes. PR [#3574](#) by [@tiangolo](#).
- 🤖 Update GitHub Action latest-changes. PR [#3573](#) by [@tiangolo](#).
- 🤖 Rename and clarify CI workflow job names. PR [#3570](#) by [@tiangolo](#).
- 🤖 Update GitHub Action latest-changes, strike 2 🚫. PR [#3575](#) by [@tiangolo](#).
- 🔧 Sort external links in docs to have the most recent at the top. PR [#3568](#) by [@tiangolo](#).

0.66.1

Translations

- 🌐 Add basic setup for German translations. PR [#3522](#) by [@0x4Dark](#).
- 🌐 Add Portuguese translation for `docs/tutorial/security/index.md`. PR [#3507](#) by [@oandersonmagalhaes](#).
- 🌐 Add Portuguese translation for `docs/deployment/index.md`. PR [#3337](#) by [@lsglucas](#).

Internal

- 🔧 Configure strict pytest options and update/refactor tests. Upgrade pytest to `>=6.2.4, <7.0.0` and pytest-cov to `>=2.12.0, <3.0.0`. Initial PR [#2790](#) by [@graingert](#).
- 📦 Upgrade python-jose dependency to `>=3.3.0, <4.0.0` for tests. PR [#3468](#) by [@tiangolo](#).

0.66.0

Features

- ✨ Allow setting the `response_class` to `RedirectResponse` or `FileResponse` and returning the URL from the function. New and updated docs are in the tutorial section **Custom Response - HTML, Stream, File, others**, in [RedirectResponse](#) and in [FileResponse](#). PR [#3457](#) by [@tiangolo](#).

Fixes

- 🐛 Fix include/exclude for dicts in `jsonable_encoder`. PR [#2016](#) by [@Rubikoid](#).
- 🐛 Support custom OpenAPI / JSON Schema fields in the generated output OpenAPI. PR [#1429](#) by [@jmagnusson](#).

Translations

- 🌐 Add Spanish translation for `tutorial/query-params.md`. PR [#2243](#) by [@mariacamilag](#).
- 🌐 Add Spanish translation for `advanced/response-directly.md`. PR [#1253](#) by [@jfunez](#).
- 🌐 Add Spanish translation for `advanced/additional-status-codes.md`. PR [#1252](#) by [@jfunez](#).
- 🌐 Add Spanish translation for `advanced/path-operation-advanced-configuration.md`. PR [#1251](#) by [@jfunez](#).

0.65.3

Fixes

- 🐛 Assume request bodies contain JSON when no Content-Type header is provided. This fixes a breaking change introduced by [0.65.2 with PR #2118](#). It should allow upgrading FastAPI applications with clients that send JSON data without a `Content-Type` header. And there's still protection against CSRFs. PR [#3456](#) by [@tiangolo](#).

Translations

- 🌐 Initialize Indonesian translations. PR [#3014](#) by [@pace-noge](#).

- 🌐 Add Spanish translation of Tutorial - Path Parameters. PR [#2219](#) by [@mariacamilagl](#).
- 🌐 Add Spanish translation of Tutorial - First Steps. PR [#2208](#) by [@mariacamilagl](#).
- 🌐 Portuguese translation of Tutorial - Body - Fields. PR [#3420](#) by [@ComicShrimp](#).
- 🌐 Add Chinese translation for Tutorial - Request - Forms - and - Files. PR [#3249](#) by [@jaystone776](#).
- 🌐 Add Chinese translation for Tutorial - Handling - Errors. PR [#3299](#) by [@jaystone776](#).
- 🌐 Add Chinese translation for Tutorial - Form - Data. PR [#3248](#) by [@jaystone776](#).
- 🌐 Add Chinese translation for Tutorial - Body - Updates. PR [#3237](#) by [@jaystone776](#).
- 🌐 Add Chinese translation for FastAPI People. PR [#3112](#) by [@hareru](#).
- 🌐 Add French translation for Project Generation. PR [#3197](#) by [@Smlep](#).
- 🌐 Add French translation for Python Types Intro. PR [#3185](#) by [@Smlep](#).
- 🌐 Add French translation for External Links. PR [#3103](#) by [@Smlep](#).
- 🌐 Add French translation for Alternatives, Inspiration and Comparisons. PR [#3020](#) by [@rjNemo](#).
- 🌐 Fix Chinese translation code snippet mismatch in Tutorial - Python Types Intro. PR [#2573](#) by [@BoYanZh](#).
- 🌐 Add Portuguese translation for Development Contributing. PR [#1364](#) by [@Serrones](#).
- 🌐 Add Chinese translation for Tutorial - Request - Files. PR [#3244](#) by [@jaystone776](#).

Internal

- 👤 Update FastAPI People. PR [#3450](#) by [@github-actions\[bot\]](#).
- 👤 Update FastAPI People. PR [#3319](#) by [@github-actions\[bot\]](#).
- ⬆ Upgrade docs development dependency on `typer-cli` to `>=0.0.12` to fix conflicts. PR [#3429](#) by [@tiangolo](#).

0.65.2

Security fixes

- 🛡 Check Content-Type request header before assuming JSON. Initial PR [#2118](#) by [@patrickkwang](#).

This change fixes a [CSRF](#) security vulnerability when using cookies for authentication in path operations with JSON payloads sent by browsers.

In versions lower than `0.65.2`, FastAPI would try to read the request payload as JSON even if the `content-type` header sent was not set to `application/json` or a compatible JSON media type (e.g. `application/geo+json`).

So, a request with a content type of `text/plain` containing JSON data would be accepted and the JSON data would be extracted.

But requests with content type `text/plain` are exempt from [CORS](#) preflights, for being considered [Simple requests](#). So, the browser would execute them right away including cookies, and the text content could be a JSON string that would be parsed and accepted by the FastAPI application.

See [CVE-2021-32677](#) for more details.

Thanks to [Dima Boger](#) for the security report! 🙏🛡

Internal

- 🔧 Update sponsors badge, course bundle. PR [#3340](#) by [@tiangolo](#).
- 🔧 Add new gold sponsor Jina 🐦. PR [#3291](#) by [@tiangolo](#).
- 🔧 Add new banner sponsor badge for FastAPI courses bundle. PR [#3288](#) by [@tiangolo](#).
- 🙋 Upgrade Issue Manager GitHub Action. PR [#3236](#) by [@tiangolo](#).

0.65.1

Security fixes

- 🚧 Upgrade pydantic pin, to handle security vulnerability [CVE-2021-29510](#). PR [#3213](#) by [@tiangolo](#).

0.65.0

Breaking Changes - Upgrade

- 📖 Upgrade Starlette to `0.14.2`, including internal `UJSONResponse` migrated from Starlette. This includes several bug fixes and features from Starlette. PR [#2335](#) by [@hanneskuettner](#).

Translations

- 🌐 Initialize new language Polish for translations. PR [#3170](#) by [@neternefer](#).

Internal

- 🧑 Add GitHub Action cache to speed up CI installs. PR [#3204](#) by [@tiangolo](#).
- 📖 Upgrade setup-python GitHub Action to v2. PR [#3203](#) by [@tiangolo](#).
- 🐛 Fix docs script to generate a new translation language with `overrides` boilerplate. PR [#3202](#) by [@tiangolo](#).
- 🌟 Add new Deta banner badge with new sponsorship tier 🧑. PR [#3194](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#3189](#) by [@github-actions\[bot\]](#).
- 🔊 Update FastAPI People to allow better debugging. PR [#3188](#) by [@tiangolo](#).

0.64.0

Features

- 🌟 Add support for adding multiple `examples` in request bodies and path, query, cookie, and header params. New docs: [Declare Request Example Data](#). Initial PR [#1267](#) by [@austinorr](#).

Fixes

- 🚧 Pin SQLAlchemy range for tests, as it doesn't use SemVer. PR [#3001](#) by [@tiangolo](#).
- 🐛 Add newly required type annotations for mypy. PR [#2882](#) by [@tiangolo](#).
- 🐛 Remove internal "type: ignore", now unnecessary. PR [#2424](#) by [@AsakuraMizu](#).

Docs

- 📖 Add link to article in Russian "FastAPI: знакомимся с фреймворком". PR [#2564](#) by [@trkohler](#).
- 📖 Add external link to blog post "Authenticate Your FastAPI App with Auth0". PR [#2172](#) by [@dompatmore](#).
- 📖 Fix broken link to article: Machine learning model serving in Python using FastAPI and Streamlit. PR [#2557](#) by [@davidfiocco](#).
- 📖 Add FastAPI Medium Article: Deploy a dockerized FastAPI application to AWS. PR [#2515](#) by [@vjanz](#).
- 🐛 Fix typo in Tutorial - Handling Errors. PR [#2486](#) by [@johnthagen](#).
- 🐛 Fix typo in Security OAuth2 scopes. PR [#2407](#) by [@jugmac00](#).
- 🐛 Fix typo/clarify docs for SQL (Relational) Databases. PR [#2393](#) by [@kangni](#).
- 📖 Add external link to "FastAPI for Flask Users". PR [#2280](#) by [@amitness](#).

Translations

- 🌐 Fix Chinese translation of Tutorial - Query Parameters, remove obsolete content. PR [#3051](#) by [@louis70109](#).
- 🌐 Add French translation for Tutorial - Background Tasks. PR [#3098](#) by [@Smlep](#).

- 🌐 Fix Korean translation for docs/ko/docs/index.md. PR [#3159](#) by [@SueNaEunYang](#).
- 🌐 Add Korean translation for Tutorial - Query Parameters. PR [#2390](#) by [@hard-coders](#).
- 🌐 Add French translation for FastAPI People. PR [#2232](#) by [@JulianMaurin](#).
- 🌐 Add Korean translation for Tutorial - Path Parameters. PR [#2355](#) by [@hard-coders](#).
- 🌐 Add French translation for Features. PR [#2157](#) by [@Jefidev](#).
- 🤖 Update FastAPI People. PR [#3031](#) by [@github-actions\[bot\]](#).
- 🌐 Add Chinese translation for Tutorial - Debugging. PR [#2737](#) by [@blt232018](#).
- 🌐 Add Chinese translation for Tutorial - Security - OAuth2 with Password (and hashing), Bearer with JWT tokens. PR [#2642](#) by [@waynerv](#).
- 🌐 Add Korean translation for Tutorial - Header Parameters. PR [#2589](#) by [@mode9](#).
- 🌐 Add Chinese translation for Tutorial - Metadata and Docs URLs. PR [#2559](#) by [@blt232018](#).
- 🌐 Add Korean translation for Tutorial - First Steps. PR [#2323](#) by [@hard-coders](#).
- 🌐 Add Chinese translation for Tutorial - CORS (Cross-Origin Resource Sharing). PR [#2540](#) by [@blt232018](#).
- 🌐 Add Chinese translation for Tutorial - Middleware. PR [#2334](#) by [@lpdswing](#).
- 🌐 Add Korean translation for Tutorial - Intro. PR [#2317](#) by [@hard-coders](#).
- 🌐 Add Chinese translation for Tutorial - Bigger Applications - Multiple Files. PR [#2453](#) by [@waynerv](#).
- 🌐 Add Chinese translation for Tutorial - Security - Security Intro. PR [#2443](#) by [@waynerv](#).
- 🌐 Add Chinese translation for Tutorial - Header Parameters. PR [#2412](#) by [@maoyibo](#).
- 🌐 Add Chinese translation for Tutorial - Extra Data Types. PR [#2410](#) by [@maoyibo](#).
- 🌐 Add Japanese translation for Deployment - Docker. PR [#2312](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Deployment - Versions. PR [#2310](#) by [@tokusumi](#).
- 🌐 Add Chinese translation for Tutorial - Cookie Parameters. PR [#2261](#) by [@alicrazy1947](#).
- 🌐 Add Japanese translation for Tutorial - Static files. PR [#2260](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Testing. PR [#2259](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Debugging. PR [#2256](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Middleware. PR [#2255](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Concurrency and async / await. PR [#2058](#) by [@tokusumi](#).
- 🌐 Add Chinese translation for Tutorial - Security - Simple OAuth2 with Password and Bearer. PR [#2514](#) by [@waynerv](#).
- 🌐 Add Japanese translation for Deployment - Deta. PR [#2314](#) by [@tokusumi](#).
- 🌐 Add Chinese translation for Tutorial - Security - Get Current User. PR [#2474](#) by [@waynerv](#).
- 🌐 Add Japanese translation for Deployment - Manually. PR [#2313](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Deployment - Intro. PR [#2309](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for FastAPI People. PR [#2254](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Advanced - Path Operation Advanced Configuration. PR [#2124](#) by [@Attsun1031](#).
- 🌐 Add Japanese translation for External Links. PR [#2070](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Body - Updates. PR [#1956](#) by [@SwftAlpc](#).
- 🌐 Add Japanese translation for Tutorial - Form Data. PR [#1943](#) by [@SwftAlpc](#).
- 🌐 Add Japanese translation for Tutorial - Cookie Parameters. PR [#1933](#) by [@SwftAlpc](#).

Internal

- 🛠 Update top banner, point to newsletter. PR [#3003](#) by [@tiangolo](#).
- 🛠 Disable sponsor WeTransfer. PR [#3002](#) by [@tiangolo](#).
- 🤖 Update FastAPI People. PR [#2880](#) by [@github-actions\[bot\]](#).
- 🤖 Update FastAPI People. PR [#2739](#) by [@github-actions\[bot\]](#).
- 🛠 Add new Gold Sponsor Talk Python 🐍. PR [#2673](#) by [@tiangolo](#).
- 🛠 Add new Gold Sponsor vim.so 🐍. PR [#2669](#) by [@tiangolo](#).
- 🛠 Add FastAPI user survey banner. PR [#2623](#) by [@tiangolo](#).
- 🛠 Add new Bronze Sponsor(s) 🏆. PR [#2622](#) by [@tiangolo](#).

- 📄 Update social links: add Discord, fix GitHub. PR [#2621](#) by [@tiangolo](#).
- 🔧 Update FastAPI People GitHub Sponsors order. PR [#2620](#) by [@tiangolo](#).
- 🔧 Update InvestSuite sponsor data. PR [#2608](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#2590](#) by [@github-actions\[bot\]](#).

0.63.0

Features

- 🌟 Improve type annotations, add support for mypy --strict, internally and for external packages. PR [#2547](#) by [@tiangolo](#).

Breaking changes

- 📖 Upgrade Uvicorn when installing `fastapi[all]` to the latest version including `uvloop`, the new range is `uvicorn[standard] >=0.12.0, <0.14.0`. PR [#2548](#) by [@tiangolo](#).

Fixes

- 🐛 PR [#2547](#) (read above) also fixes some false-positive mypy errors with `callbacks` parameters and when using the `OAuth2` class.

Docs

- 📄 Update Uvicorn installation instructions to use `uvicorn[standard]` (includes `uvloop`). PR [#2543](#) by [@tiangolo](#).
- 📄 Update title for Deta tutorial. PR [#2466](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#2454](#) by [@github-actions\[bot\]](#).

Translations

- 🌐 Add docs lang selector widget. PR [#2542](#) by [@tiangolo](#).
- 🌐 Add Chinese translation for Tutorial - Response Status Code. PR [#2442](#) by [@waynerv](#).
- 🌐 Start translation of the documentation for the Albanian language. PR [#2516](#) by [@vjanz](#).
- 🌐 Add Chinese translation for Tutorial - Extra Models. PR [#2416](#) by [@waynerv](#).
- 🌐 Add Chinese translation for Tutorial - Response Model. PR [#2414](#) by [@waynerv](#).
- 🌐 Add Chinese translation for Tutorial - Schema Extra Example. PR [#2411](#) by [@maoyibo](#).
- 🌐 Add Korean translation for Index. PR [#2192](#) by [@hard-coders](#).
- 🌐 Add Japanese translation for Advanced User Guide - Additional Status Codes. PR [#2145](#) by [@Attsun1031](#).

Internal

- 🐛 Fix docs overrides directory for translations. PR [#2541](#) by [@tiangolo](#).
- ⚖️ Remove Typer as a docs building dependency (covered by typer-cli) to fix pip resolver conflicts. PR [#2539](#) by [@tiangolo](#).
- 🌟 Add newsletter: FastAPI and friends. PR [#2509](#) by [@tiangolo](#).
- 🌟 Add new Gold Sponsor: InvestSuite 🏆. PR [#2508](#) by [@tiangolo](#).
- 🔧 Add issue template configs. PR [#2476](#) by [@tiangolo](#).

0.62.0

Features

- 🌟 Add support for shared/top-level parameters (dependencies, tags, etc). PR [#2434](#) by [@tiangolo](#).

Up to now, for several options, the only way to apply them to a group of *path operations* was in `include_router`. That works well, but the call to `app.include_router()` or `router.include_router()` is normally done in another file.

That means that, for example, to apply authentication to all the *path operations* in a router it would end up being done in a different file, instead of keeping related logic together.

Setting options in `include_router` still makes sense in some cases, for example, to override or increase configurations from a third party router included in an app. But in a router that is part of a bigger application, it would probably make more sense to add those settings when creating the `APIRouter`.

In `FastAPI`

This allows setting the (mostly new) parameters (additionally to the already existing parameters):

- `default_response_class` : updated to handle defaults in `APIRouter` and `include_router`.
- `dependencies` : to include ✨ top-level dependencies ✨ that apply to the whole application. E.g. to add global authentication.
- `callbacks` : OpenAPI callbacks that apply to all the *path operations*.
- `deprecated` : to mark all the *path operations* as deprecated. 🚫
- `include_in_schema` : to allow excluding all the *path operations* from the OpenAPI schema.
- `responses` : OpenAPI responses that apply to all the *path operations*.

For example:

```
from fastapi import FastAPI, Depends

async def some_dependency():
    return

app = FastAPI(dependencies=[Depends(some_dependency)])
```

In `APIRouter`

This allows setting the (mostly new) parameters (additionally to the already existing parameters):

- `default_response_class` : updated to handle defaults in `APIRouter` and `include_router`. For example, it's not needed to set it explicitly when [creating callbacks](#).
- `dependencies` : to include ✨ router-level dependencies ✨ that apply to all the *path operations* in a router. Up to now, this was only possible with `include_router`.
- `callbacks` : OpenAPI callbacks that apply to all the *path operations* in this router.
- `deprecated` : to mark all the *path operations* in a router as deprecated.
- `include_in_schema` : to allow excluding all the *path operations* in a router from the OpenAPI schema.
- `responses` : OpenAPI responses that apply to all the *path operations* in a router.
- `prefix` : to set the path prefix for a router. Up to now, this was only possible when calling `include_router`.
- `tags` : OpenAPI tags to apply to all the *path operations* in this router.

For example:

```

from fastapi import APIRouter, Depends

async def some_dependency():
    return

router = APIRouter(prefix="/users", dependencies=[Depends(some_dependency)])

```

In `include_router`

Most of these settings are now supported in `APIRouter`, which normally lives closer to the related code, so it is recommended to use `APIRouter` when possible.

But `include_router` is still useful to, for example, adding options (like `dependencies`, `prefix`, and `tags`) when including a third party router, or a generic router that is shared between several projects.

This PR allows setting the (mostly new) parameters (additionally to the already existing parameters):

- `default_response_class`: updated to handle defaults in `APIRouter` and `FastAPI`.
- `deprecated`: to mark all the *path operations* in a router as deprecated in OpenAPI.
- `include_in_schema`: to allow disabling all the *path operations* from showing in the OpenAPI schema.
- `callbacks`: OpenAPI callbacks that apply to all the *path operations* in this router.

Note: all the previous parameters are still there, so it's still possible to declare `dependencies` in `include_router`.

Breaking Changes

- PR [#2434](#) includes several improvements that shouldn't affect normal use cases, but could affect in advanced scenarios:
 - If you are testing the generated OpenAPI (you shouldn't, FastAPI already tests it extensively for you): the order for `tags` in `include_router` and *path operations* was updated for consistency, but it's a simple order change.
 - If you have advanced custom logic to access each route's `route.response_class`, or the `router.default_response_class`, or the `app.default_response_class`: the default value for `response_class` in `APIRoute` and for `default_response_class` in `APIRouter` and `FastAPI` is now a `DefaultPlaceholder` used internally to handle and solve default values and overrides. The actual response class inside the `DefaultPlaceholder` is available at `route.response_class.value`.

Docs

- PR [#2434](#) (above) includes new or updated docs:
 - [Advanced User Guide - OpenAPI Callbacks.](#)
 - [Tutorial - Bigger Applications.](#)
 - [Tutorial - Dependencies - Dependencies in path operation decorators.](#)
 - [Tutorial - Dependencies - Global Dependencies.](#)
- 📖 Add FastAPI monitoring blog post to External Links. PR [#2324](#) by [@louisguitton](#).
- ✎ Fix typo in Deta tutorial. PR [#2320](#) by [@tiangolo](#).

- 🌟 Add Discord chat. PR [#2322](#) by [@tiangolo](#).
- 📄 Fix image links for sponsors. PR [#2304](#) by [@tiangolo](#).

Translations

- 🌐 Add Japanese translation for Advanced - Custom Response. PR [#2193](#) by [@Attsun1031](#).
- 🌐 Add Chinese translation for Benchmarks. PR [#2119](#) by [@spaceack](#).
- 🌐 Add Chinese translation for Tutorial - Body - Nested Models. PR [#1609](#) by [@waynerv](#).
- 🌐 Add Chinese translation for Advanced - Custom Response. PR [#1459](#) by [@Runninglkkyu](#).
- 🌐 Add Chinese translation for Advanced - Return a Response Directly. PR [#1452](#) by [@Runninglkkyu](#).
- 🌐 Add Chinese translation for Advanced - Additional Status Codes. PR [#1451](#) by [@Runninglkkyu](#).
- 🌐 Add Chinese translation for Advanced - Path Operation Advanced Configuration. PR [#1447](#) by [@Runninglkkyu](#).
- 🌐 Add Chinese translation for Advanced User Guide - Intro. PR [#1445](#) by [@Runninglkkyu](#).

Internal

- 🔧 Update TestDriven link to course in sponsors section. PR [#2435](#) by [@tiangolo](#).
- 🏠 Update sponsor logos. PR [#2418](#) by [@tiangolo](#).
- ❤️ Fix disabling install of Material for MkDocs Insiders in forks, strike 1. PR [#2340](#) by [@tiangolo](#).
- 🐸 Fix disabling Material for MkDocs Insiders install in forks. PR [#2339](#) by [@tiangolo](#).
- 🌟 Add silver sponsor WeTransfer. PR [#2338](#) by [@tiangolo](#).
- 🌟 Set up and enable Material for MkDocs Insiders for the docs. PR [#2325](#) by [@tiangolo](#).

0.61.2

Fixes

- 📌 Relax Swagger UI version pin. PR [#2089](#) by [@jmriebold](#).
- 🐸 Fix bug overriding custom HTTPException and RequestValidationError from exception_handlers. PR [#1924](#) by [@uriyyo](#).
- 📄 Fix typo on dependencies utils and cleanup unused variable. PR [#1912](#) by [@Kludex](#).

Docs

- 📄 Fix typo in Tutorial - Path Parameters. PR [#2231](#) by [@mariacamilag](#).
- ➡️ Fix a stylistic error in docs. PR [#2206](#) by [@ddobrinskiy](#).
- ➡️ Fix capitalizaiton typo in docs. PR [#2204](#) by [@imba-tjd](#).
- ➡️ Fix typo in docs. PR [#2179](#) by [@ammarasmro](#).
- 📄 Update/fix links in docs to use HTTPS. PR [#2165](#) by [@imba-tjd](#).
- ➡️ Fix typos and add rewording in docs. PR [#2159](#) by [@nukopy](#).
- 📄 Fix code consistency in examples for Tutorial - User Guide - Path Parameters. PR [#2158](#) by [@nukopy](#).
- 📄 Fix renamed parameter `content_type` typo. PR [#2135](#) by [@TeoZosa](#).
- ➡️ Fix minor typos in docs. PR [#2122](#) by [@TeoZosa](#).
- ➡️ Fix typos in docs and source examples. PR [#2102](#) by [@AdrianDeAnda](#).
- ➡️ Fix incorrect Celery URLs in docs. PR [#2100](#) by [@CircleOnCircles](#).
- 📄 Simplify intro to Python Types, all currently supported Python versions include type hints 🐍. PR [#2085](#) by [@ninjaaron](#).
- 📄 Fix example code with sets in Tutorial - Body - Nested Models 3. PR [#2054](#) by [@hitrust](#).
- 📄 Fix example code with sets in Tutorial - Body - Nested Models 2. PR [#2053](#) by [@hitrust](#).
- 📄 Fix example code with sets in Tutorial - Body - Nested Models. PR [#2052](#) by [@hitrust](#).
- ➡️ Fix typo in Benchmarks. PR [#1995](#) by [@AlejoAsd](#).
- 📄 Add note in CORS tutorial about allow_origins with ["*"] and allow_credentials. PR [#1895](#) by [@dsmurrell](#).

- 📄 Add deployment to Deta, the first gold sponsor 🏆. PR [#2303](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#2282](#) by [@github-actions\[bot\]](#).
- ✎ Fix uppercase in Tutorial - Query parameters. PR [#2245](#) by [@mariacamilagj](#).
- 📄 Add articles to External Links. PR [#2247](#) by [@tiangolo](#).
- ➡ Fix typo in Spanish tutorial index. PR [#2020](#) by [@aviloncho](#).

Translations

- 🌐 Add Japanese translation for Advanced Tutorial - Response Directly. PR [#2191](#) by [@Attsun1031](#).
- 📄 Add Japanese translation for Tutorial - Security - First Steps. PR [#2153](#) by [@komtaki](#).
- 🌐 Add Japanese translation for Tutorial - Query Parameters and String Validations. PR [#1901](#) by [@SwiftAlpc](#).
- 🌐 Add Portuguese translation for External Links. PR [#1443](#) by [@Serrones](#).
- 🌐 Add Japanese translation for Tutorial - CORS. PR [#2125](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Contributing. PR [#2067](#) by [@komtaki](#).
- 🌐 Add Japanese translation for Project Generation. PR [#2050](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Alternatives. PR [#2043](#) by [@Attsun1031](#).
- 🌐 Add Japanese translation for History Design and Future. PR [#2002](#) by [@komtaki](#).
- 🌐 Add Japanese translation for Benchmarks. PR [#1992](#) by [@komtaki](#).
- 🌐 Add Japanese translation for Tutorial - Header Parameters. PR [#1935](#) by [@SwiftAlpc](#).
- 🌐 Add Portuguese translation for Tutorial - First Steps. PR [#1861](#) by [@jessicapaz](#).
- 🌐 Add Portuguese translation for Python Types. PR [#1796](#) by [@izaguerreiro](#).
- 🌐 Add Japanese translation for Help FastAPI. PR [#1692](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Body. PR [#1683](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for Tutorial - Query Params. PR [#1674](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for tutorial/path-params.md. PR [#1671](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for tutorial/first-steps.md. PR [#1658](#) by [@tokusumi](#).
- 🌐 Add Japanese translation for tutorial/index.md. PR [#1656](#) by [@tokusumi](#).
- 🌐 Add translation to Portuguese for Project Generation. PR [#1602](#) by [@Serrones](#).
- 🌐 Add Japanese translation for Features. PR [#1625](#) by [@tokusumi](#).
- 🌐 Initialize new language Korean for translations. PR [#2018](#) by [@hard-coders](#).
- 🌐 Add Portuguese translation of Deployment. PR [#1374](#) by [@Serrones](#).

Internal

- 🔥 Cleanup after upgrade for Docs Previews GitHub Action. PR [#2248](#) by [@tiangolo](#).
- 🐞 Fix CI docs preview, unzip docs. PR [#2246](#) by [@tiangolo](#).
- ✨ Add instant docs deploy previews for PRs from forks. PR [#2244](#) by [@tiangolo](#).
- ⚡ Build docs for languages in parallel in subprocesses to speed up CI. PR [#2242](#) by [@tiangolo](#).
- 🐞 Fix docs order generation for partial translations. PR [#2238](#) by [@tiangolo](#).
- 👤 Update FastAPI People. PR [#2202](#) by [@github-actions\[bot\]](#).
- 🌿 Update FastAPI People GitHub Action to send the PR as github-actions. PR [#2201](#) by [@tiangolo](#).
- 🔧 Update FastAPI People GitHub Action config, run monthly. PR [#2199](#) by [@tiangolo](#).
- 🐞 Fix FastAPI People GitHub Action Docker dependency, strike 1 🚫. PR [#2198](#) by [@tiangolo](#).
- 🐞 Fix FastAPI People GitHub Action Docker dependencies. PR [#2197](#) by [@tiangolo](#).
- 🐞 Fix FastAPI People GitHub Action when there's nothing to change. PR [#2196](#) by [@tiangolo](#).
- 👤 Add new section FastAPI People. PR [#2195](#) by [@tiangolo](#).
- 📄 Upgrade GitHub Action Latest Changes. PR [#2190](#) by [@tiangolo](#).
- 📄 Upgrade GitHub Action Label Approved. PR [#2189](#) by [@tiangolo](#).
- 🔧 Update GitHub Action Label Approved, run at 12:00. PR [#2185](#) by [@tiangolo](#).
- 👤 Upgrade GitHub Action Latest Changes. PR [#2184](#) by [@tiangolo](#).
- 👤 Set GitHub Action Label Approved to run daily, not every minute. PR [#2163](#) by [@tiangolo](#).

- 🚫 Remove pr-approvals GitHub Action as it's not compatible with forks. Use the new one. PR [#2162](#) by [@tiangolo](#).
- 🤖 Add GitHub Action Latest Changes. PR [#2160](#).
- 🤖 Add GitHub Action Label Approved. PR [#2161](#).

0.61.1

Fixes

- Fix issues using `jsonable_encoder` with SQLAlchemy models directly. PR [#1987](#).

Docs

- Fix typo in NoSQL docs. PR [#1980](#) by [@facundojmaero](#).

Translations

- Add translation for [main page to Japanese](#) PR [#1571](#) by [@ryuckel](#).
- Initialize French translations. PR [#1975](#) by [@JulianMaurin-BM](#).
- Initialize Turkish translations. PR [#1905](#) by [@ycd](#).

Internal

- Improve docs maintainability by updating `hl_lines` syntax to use ranges. PR [#1863](#) by [@la-mar](#).

0.61.0

Features

- Add support for injecting `HTTPConnection` (as `Request` and `WebSocket`). Useful for sharing app state in dependencies. PR [#1827](#) by [@nsidnev](#).
- Export `WebSocketDisconnect` and add example handling WebSocket disconnections to docs. PR [#1822](#) by [@rkbeatss](#).

Breaking Changes

- Require Pydantic > 1.0.0 .
 - Remove support for deprecated Pydantic 0.32.2 . This improves maintainability and allows new features.
 - In `FastAPI` and `APIRouter` :
 - Remove *path operation decorators* related/deprecated parameter `response_model_skip_defaults` (use `response_model_exclude_unset` instead).
 - Change *path operation decorators* parameter default for `response_model_exclude` from `set()` to `None` (as is in Pydantic).
 - In `encoders.jsonable_encoder` :
 - Remove deprecated `skip_defaults` , use instead `exclude_unset` .
 - Set default of `exclude` from `set()` to `None` (as is in Pydantic).
 - PR [#1862](#).
- In `encoders.jsonable_encoder` remove parameter `sqlalchemy_safe` .
 - It was an early hack to allow returning SQLAlchemy models, but it was never documented, and the recommended way is using Pydantic's `orm_mode` as described in the tutorial: [SQL \(Relational\) Databases](#).
 - PR [#1864](#).

Docs

- Add link to the course by TestDriven.io: [Test-Driven Development with FastAPI and Docker](#). PR [#1860](#).
- Fix empty log message in docs example about handling errors. PR [#1815](#) by [@manlix](#).
- Reword text to reduce ambiguity while not being gender-specific. PR [#1824](#) by [@Mause](#).

Internal

- Add Flake8 linting. Original PR [#1774](#) by [@MashhadiNima](#).
- Disable Gitter bot, as it's currently broken, and Gitter's response doesn't show the problem. PR [#1853](#).

0.60.2

- Fix typo in docs for query parameters. PR [#1832](#) by [@ycd](#).
- Add docs about [Async Tests](#). PR [#1619](#) by [@empicano](#).
- Raise an exception when using form data (`Form` , `File`) without having `python-multipart` installed.
 - Up to now the application would run, and raise an exception only when receiving a request with form data, the new behavior, raising early, will prevent from deploying applications with broken dependencies.
 - It also detects if the correct package `python-multipart` is installed instead of the incorrect `multipart` (both importable as `multipart`).
 - PR [#1851](#) based on original PR [#1627](#) by [@chrisngyn](#), [@YKo20010](#), [@kx-chen](#).
- Re-enable Gitter releases bot. PR [#1831](#).
- Add link to async SQL databases tutorial from main SQL tutorial. PR [#1813](#) by [@short2strings](#).
- Fix typo in tutorial about behind a proxy. PR [#1807](#) by [@toidi](#).
- Fix typo in Portuguese docs. PR [#1795](#) by [@izaguerreiro](#).
- Add translations setup for Ukrainian. PR [#1830](#).
- Add external link [Build And Host Fast Data Science Applications Using FastAPI](#). PR [#1786](#) by [@Kludex](#).
- Fix encoding of Pydantic models that inherit from others models with custom `json_encoders` . PR [#1769](#) by [@henrybetts](#).
- Simplify and improve `jsonable_encoder` . PR [#1754](#) by [@MashhadiNima](#).
- Simplify internal code syntax in several points. PR [#1753](#) by [@uriyyo](#).
- Improve internal typing, declare `Optional` parameters. PR [#1731](#) by [@MashhadiNima](#).
- Add external link [Deploy FastAPI on Azure App Service](#) to docs. PR [#1726](#) by [@windson](#).
- Add link to Starlette docs about WebSocket testing. PR [#1717](#) by [@hellocoldworld](#).
- Refactor generating dependant, merge for loops. PR [#1714](#) by [@Bloodielie](#).
- Update example for templates with Jinja to include HTML media type. PR [#1690](#) by [@frafra](#).
- Fix typos in docs for security. PR [#1678](#) by [@nilslindemann](#).
- Fix typos in docs for dependencies. PR [#1675](#) by [@nilslindemann](#).
- Fix type annotation for `**extra` parameters in `FastAPI` . PR [#1659](#) by [@bharel](#).
- Bump MkDocs Material to fix docs in browsers with dark mode. PR [#1789](#) by [@adriencaccia](#).
- Remove docs preview comment from each commit. PR [#1826](#).
- Update GitHub context extraction for Gitter notification bot. PR [#1766](#).

0.60.1

- Add debugging logs for GitHub actions to introspect GitHub hidden context. PR [#1764](#).
- Use OS preference theme for online docs. PR [#1760](#) by [@adriencaccia](#).
- Upgrade Starlette to version `0.13.6` to handle a vulnerability when using static files in Windows. PR [#1759](#) by [@jamesag26](#).
- Pin Swagger UI temporarily, waiting for a fix for [swagger-api/swagger-ui#6249](#). PR [#1763](#).

- Update GitHub Actions, use commit from PR for docs preview, not commit from pre-merge. PR [#1761](#).
- Update GitHub Actions, refactor Gitter bot. PR [#1746](#).

0.60.0

- Add GitHub Action to watch for missing preview docs and trigger a preview deploy. PR [#1740](#).
- Add custom GitHub Action to get artifact with docs preview. PR [#1739](#).
- Add new GitHub Actions to preview docs from PRs. PR [#1738](#).
- Add XML test coverage to support GitHub Actions. PR [#1737](#).
- Update badges and remove Travis now that GitHub Actions is the main CI. PR [#1736](#).
- Add GitHub Actions for CI, move from Travis. PR [#1735](#).
- Add support for adding OpenAPI schema for GET requests with a body. PR [#1626](#) by [@victorphoenix3](#).

0.59.0

- Fix typo in docstring for OAuth2 utils. PR [#1621](#) by [@tomarv2](#).
- Update JWT docs to use Python-jose instead of PyJWT. Initial PR [#1610](#) by [@asheux](#).
- Fix/re-enable search bar in docs. PR [#1703](#).
- Auto-generate a "server" in OpenAPI `servers` when there's a `root_path` instead of prefixing all the `paths` :
 - Add a new parameter for FastAPI classes: `root_path_in_servers` to disable the auto-generation of `servers` .
 - New docs about `root_path` and `servers` in [Additional Servers](#).
 - Update OAuth2 examples to use a relative URL for `tokenUrl="token"` to make sure those examples keep working as-is even when behind a reverse proxy.
 - Initial PR [#1596](#) by [@rkbeatss](#).
- Fix typo/link in External Links. PR [#1702](#).
- Update handling of [External Links](#) to use a data file and allow translating the headers without becoming obsolete quickly when new links are added. PR <https://github.com/tiangolo/fastapi/pull/1701>.
- Add external link [Machine learning model serving in Python using FastAPI and Streamlit](#) to docs. PR [#1669](#) by [@davidefiocco](#).
- Add note in docs on order in Pydantic Unions. PR [#1591](#) by [@kbanc](#).
- Improve support for tests in editor. PR [#1699](#).
- Pin dependencies. PR [#1697](#).
- Update isort to version 5.x.x. PR [#1670](#) by [@asheux](#).

0.58.1

- Add link in docs to Pydantic data types. PR [#1612](#) by [@tayogunbiyi](#).
- Fix link in warning logs for `openapi_prefix` . PR [#1611](#) by [@bavaria95](#).
- Fix bad link in docs. PR [#1603](#) by [@molto0504](#).
- Add Vim temporary files to `.gitignore` for contributors using Vim. PR [#1590](#) by [@asheux](#).
- Fix typo in docs for sub-applications. PR [#1578](#) by [@schlpbch](#).
- Use `Optional` in all the examples in the docs. Original PR [#1574](#) by [@chrisngyn](#), [@kx-chen](#), [@YKo20010](#). Updated and merged PR [#1644](#).
- Update tests and handling of `response_model_by_alias` . PR [#1642](#).
- Add translation to Chinese for [Body - Fields - 请求体 - 字段](#). PR [#1569](#) by [@waynerv](#).
- Update Chinese translation of main page. PR [#1564](#) by [@waynerv](#).
- Add translation to Chinese for [Body - Multiple Parameters - 请求体 - 多个参数](#). PR [#1532](#) by [@waynerv](#).
- Add translation to Chinese for [Path Parameters and Numeric Validations - 路径参数和数值校验](#). PR [#1506](#) by [@waynerv](#).

- Add GitHub action to auto-label approved PRs (mainly for translations). PR [#1638](#).

0.58.0

- Deep merge OpenAPI responses to preserve all the additional metadata. PR [#1577](#).
- Mention in docs that only main app events are run (not sub-apps). PR [#1554](#) by [@amacfie](#).
- Fix body validation error response, do not include body variable when it is not embedded. PR [#1553](#) by [@amacfie](#).
- Fix testing OAuth2 security scopes when using dependency overrides. PR [#1549](#) by [@amacfie](#).
- Fix Model for JSON Schema keyword `not` as a JSON Schema instead of a list. PR [#1548](#) by [@v-do](#).
- Add support for OpenAPI `servers`. PR [#1547](#) by [@mikaello](#).

0.57.0

- Remove broken link from "External Links". PR [#1565](#) by [@victorphoenix3](#).
- Update/fix docs for [WebSockets with dependencies](#). Original PR [#1540](#) by [@ChihSeanHsu](#).
- Add support for Python's `http.HTTPStatus` in `status_code` parameters. PR [#1534](#) by [@retnikt](#).
- When using Pydantic models with `__root__`, use the internal value in `jsonable_encoder`. PR [#1524](#) by [@patrickkwang](#).
- Update docs for path parameters. PR [#1521](#) by [@yankeexe](#).
- Update docs for first steps, links and rewording. PR [#1518](#) by [@yankeexe](#).
- Enable `showCommonExtensions` in Swagger UI to show additional validations like `maxLength`, etc. PR [#1466](#) by [@TiewKH](#).
- Make `OAuth2PasswordRequestFormStrict` importable directly from `fastapi.security`. PR [#1462](#) by [@RichardHoekstra](#).
- Add docs about [Default response class](#). PR [#1455](#) by [@TezRomach](#).
- Add note in docs about additional parameters `response_model_exclude_defaults` and `response_model_exclude_none` in [Response Model](#). PR [#1427](#) by [@wshayes](#).
- Add note about [PyCharm Pydantic plugin](#) to docs. PR [#1420](#) by [@koxudaxi](#).
- Update and clarify testing function name. PR [#1395](#) by [@chenl](#).
- Fix duplicated headers created by indirect dependencies that use the request directly. PR [#1386](#) by [@obataku](#) from tests by [@scottsmith2gmail](#).
- Upgrade Starlette version to `0.13.4`. PR [#1361](#) by [@rushton](#).
- Improve error handling and feedback for requests with invalid JSON. PR [#1354](#) by [@aviramha](#).
- Add support for declaring metadata for tags in OpenAPI. New docs at [Tutorial - Metadata and Docs URLs - Metadata for tags](#). PR [#1348](#) by [@thomas-maschler](#).
- Add basic setup for Russian translations. PR [#1566](#).
- Remove obsolete Chinese articles after adding official community translations. PR [#1510](#) by [@waynerv](#).
- Add `__repr__` for `path operation` function parameter helpers (like `Query`, `Depends`, etc) to simplify debugging. PR [#1560](#) by [@rkbeatss](#) and [@victorphoenix3](#).

0.56.1

- Add link to advanced docs from tutorial. PR [#1512](#) by [@kx-chen](#).
- Remove internal unnecessary f-strings. PR [#1526](#) by [@kotamatsuoka](#).
- Add translation to Chinese for [Query Parameters and String Validations - 查询参数和字符串校验](#). PR [#1500](#) by [@waynerv](#).
- Add translation to Chinese for [Request Body - 请求体](#). PR [#1492](#) by [@waynerv](#).
- Add translation to Chinese for [Help FastAPI - Get Help - 帮助 FastAPI - 获取帮助](#). PR [#1465](#) by [@waynerv](#).
- Add translation to Chinese for [Query Parameters - 查询参数](#). PR [#1454](#) by [@waynerv](#).
- Add translation to Chinese for [Contributing - 开发 - 贡献](#). PR [#1460](#) by [@waynerv](#).

- Add translation to Chinese for [Path Parameters - 路径参数](#). PR #1453 by @waynerv.
- Add official Microsoft project generator for [serving spaCy with FastAPI and Azure Cognitive Skills](#) to [Project Generators](#). PR #1390 by @kabirkhan.
- Update docs in [Python Types Intro](#) to include info about `Optional`. Original PR #1377 by @yaegassy.
- Fix support for callable class dependencies with `yield`. PR #1365 by @mrosales.
- Fix/remove incorrect error logging when a client sends invalid payloads. PR #1351 by @dbanty.
- Add translation to Chinese for [First Steps - 第一步](#). PR #1323 by @waynerv.
- Fix generating OpenAPI for apps using callbacks with routers including Pydantic models. PR #1322 by @nsidnev.
- Optimize internal regex performance in `get_path_param_names()`. PR #1243 by @heckad.
- Remove `*`, from functions in docs where it's not needed. PR #1239 by @pankaj-giri.
- Start translations for Italian. PR #1557 by @csr.

0.56.0

- Add support for ASGI `root_path` :
 - Use `root_path` internally for mounted applications, so that OpenAPI and the docs UI works automatically without extra configurations and parameters.
 - Add new `root_path` parameter for `FastAPI` applications to provide it in cases where it can be set with the command line (e.g. for Uvicorn and Hypercorn, with the parameter `--root-path`).
 - Deprecate `openapi_prefix` parameter in favor of the new `root_path` parameter.
 - Add new/updated docs for [Sub Applications - Mounts](#), without `openapi_prefix` (as it is now handled automatically).
 - Add new/updated docs for [Behind a Proxy](#), including how to setup a local testing proxy with Traefik and using `root_path`.
 - Update docs for [Extending OpenAPI](#) with the new `openapi_prefix` parameter passed (internally generated from `root_path`).
 - Original PR #1199 by @iksteen.
- Update new issue templates and docs: [Help FastAPI - Get Help](#). PR #1531.
- Update GitHub action issue-manager. PR #1520.
- Add new links:
 - **English articles:**
 - [Real-time Notifications with Python and Postgres](#) by Guillermo Cruz.
 - [Microservice in Python using FastAPI](#) by Paurakh Sharma Humagain.
 - [Build simple API service with Python FastAPI — Part 1](#) by cuongld2.
 - [FastAPI + Zeit.co = 🚀](#) by Paul Sec.
 - [Build a web API from scratch with FastAPI - the workshop](#) by Sebastián Ramírez (tiangolo).
 - [Build a Secure Twilio Webhook with Python and FastAPI](#) by Twilio.
 - [Using FastAPI with Django](#) by Stavros Korokithakis.
 - [Introducing Dispatch](#) by Netflix.
 - **Podcasts:**
 - [Build The Next Generation Of Python Web Applications With FastAPI - Episode 259 - interview to Sebastián Ramírez \(tiangolo\)](#) by Podcast. `__init__`.
 - **Talks:**
 - [PyConBY 2020: Serve ML models easily with FastAPI](#) by Sebastián Ramírez (tiangolo).
 - [\[VIRTUAL\] Py.Amsterdam's flying Software Circus: Intro to FastAPI](#) by Sebastián Ramírez (tiangolo).

- [PR #1467](#).
- Add translation to Chinese for [Python Types Intro - Python 类型提示简介](#). PR [#1197](#) by [@waynerv](#).

0.55.1

- Fix handling of enums with their own schema in path parameters. To support [samuelcolvin/pydantic#1432](#) in FastAPI. PR [#1463](#).

0.55.0

- Allow enums to allow them to have their own schemas in OpenAPI. To support [samuelcolvin/pydantic#1432](#) in FastAPI. PR [#1461](#).
- Add links for funding through [GitHub sponsors](#). PR [#1425](#).
- Update issue template for for questions. PR [#1344](#) by [@retnikt](#).
- Update warning about storing passwords in docs. PR [#1336](#) by [@skorokithakis](#).
- Fix typo. PR [#1326](#) by [@chenl](#).
- Add translation to Portuguese for [Alternatives, Inspiration and Comparisons - Alternativas, Inspiração e Comparações](#). PR [#1325](#) by [@Serrones](#).
- Fix 2 typos in docs. PR [#1324](#) by [@waynerv](#).
- Update CORS docs, fix correct default of `max_age=600`. PR [#1301](#) by [@derekbekoe](#).
- Add translation of [main page to Portuguese](#). PR [#1300](#) by [@Serrones](#).
- Re-word and clarify docs for extra info in fields. PR [#1299](#) by [@chris-allnutt](#).
- Make sure the `*` in short features in the docs is consistent (after `.`) in all languages. PR [#1424](#).
- Update order of execution for `get_db` in SQLAlchemy tutorial. PR [#1293](#) by [@bcb](#).
- Fix typos in Async docs. PR [#1423](#).

0.54.2

- Add translation to Spanish for [Concurrency and async / await - Concurrencia y async / await](#). PR [#1290](#) by [@alvaropernas](#).
- Remove obsolete vote link. PR [#1289](#) by [@donhui](#).
- Allow disabling docs UIs by just disabling OpenAPI with `openapi_url=None`. New example in docs: [Advanced: Conditional OpenAPI](#). PR [#1421](#).
- Add translation to Portuguese for [Benchmarks - Comparações](#). PR [#1274](#) by [@Serrones](#).
- Add translation to Portuguese for [Tutorial - User Guide - Intro - Tutorial - Guia de Usuário - Introdução](#). PR [#1259](#) by [@marcosmmb](#).
- Allow using Unicode in MkDocs for translations. PR [#1419](#).
- Add translation to Spanish for [Advanced User Guide - Intro - Guía de Usuario Avanzada - Introducción](#). PR [#1250](#) by [@jfunez](#).
- Add translation to Portuguese for [History, Design and Future - História, Design e Futuro](#). PR [#1249](#) by [@marcosmmb](#).
- Add translation to Portuguese for [Features - Recursos](#). PR [#1248](#) by [@marcosmmb](#).
- Add translation to Spanish for [Tutorial - User Guide - Intro - Tutorial - Guía de Usuario - Introducción](#). PR [#1244](#) by [@MartinEliasQ](#).
- Add translation to Chinese for [Deployment - 部署](#). PR [#1203](#) by [@RunningIkkyu](#).
- Add translation to Chinese for [Tutorial - User Guide - Intro - 教程 - 用户指南 - 简介](#). PR [#1202](#) by [@waynerv](#).
- Add translation to Chinese for [Features - 特性](#). PR [#1192](#) by [@Dustyposa](#).
- Add translation for [main page to Chinese](#). PR [#1191](#) by [@waynerv](#).
- Update docs for project generation. PR [#1287](#).

- Add Spanish translation for [Introducción a los Tipos de Python \(Python Types Intro\)](#). PR [#1237](#) by [@mariacamilagl](#).
- Add Spanish translation for [Características \(Features\)](#). PR [#1220](#) by [@mariacamilagl](#).

0.54.1

- Update database test setup. PR [#1226](#).
- Improve test debugging by showing response text in failing tests. PR [#1222](#) by [@samuelcolvin](#).

0.54.0

- Fix grammatical mistakes in async docs. PR [#1188](#) by [@mickeypash](#).
- Add support for `response_model_exclude_defaults` and `response_model_exclude_none`:
 - Deprecate the parameter `include_none` in `jsonable_encoder` and add the inverted `exclude_none`, to keep in sync with Pydantic.
 - PR [#1166](#) by [@voegtlet](#).
- Add example about [Testing a Database](#). Initial PR [#1144](#) by [@duganchen](#).
- Update docs for [Development - Contributing: Translations](#) including note about reviewing translation PRs. [#1215](#).
- Update log style in README.md for GitHub Markdown compatibility. PR [#1200](#) by [@geekgao](#).
- Add Python venv `env` to `.gitignore`. PR [#1212](#) by [@cassiobotaro](#).
- Start Portuguese translations. PR [#1210](#) by [@cassiobotaro](#).
- Update docs for Pydantic's `Settings` using a dependency with `@lru_cache()`. PR [#1214](#).
- Add first translation to Spanish [FastAPI](#). PR [#1201](#) by [@mariacamilagl](#).
- Add docs about [Settings and Environment Variables](#). Initial PR [#1118](#) by [@alexmitelman](#).

0.53.2

- Fix automatic embedding of body fields for dependencies and sub-dependencies. Original PR [#1079](#) by [@Toad2186](#).
- Fix dependency overrides in WebSocket testing. PR [#1122](#) by [@amitlissack](#).
- Fix docs script to ensure languages are always sorted. PR [#1189](#).
- Start translations for Chinese. PR [#1187](#) by [@Runninglkkyu](#).
- Add docs for [Schema Extra - Example](#). PR [#1185](#).

0.53.1

- Fix included example after translations refactor. PR [#1182](#).
- Add docs example for `example` in `Field`. Docs at [Body - Fields: JSON Schema extras](#). PR [#1106](#) by [@JohnPaton](#).
- Fix using recursive models in `response_model`. PR [#1164](#) by [@voegtlet](#).
- Add docs for [Pycharm Debugging](#). PR [#1096](#) by [@youngguan](#).
- Fix typo in docs. PR [#1148](#) by [@PLNech](#).
- Update Windows development environment instructions. PR [#1179](#).

0.53.0

- Update test coverage badge. PR [#1175](#).
- Add `orjson` to `pip install fastapi[all]`. PR [#1161](#) by [@michaeloliver](#).
- Fix included example for `GZipMiddleware`. PR [#1138](#) by [@arimbr](#).
- Fix class name in docstring for `OAuth2PasswordRequestFormStrict`. PR [#1126](#) by [@adg-mh](#).
- Clarify function name in example in docs. PR [#1121](#) by [@tmsick](#).

- Add external link [Apache Kafka producer and consumer with FastAPI and aiokafka](#) to docs. PR [#1112](#) by [@iwpnd](#).
- Fix serialization when using `by_alias` or `exclude_unset` and returning data with Pydantic models. PR [#1074](#) by [@juhovh-aiven](#).
- Add Gitter chat to docs. PR [#1061](#) by [@aakashnand](#).
- Update and simplify translations docs. PR [#1171](#).
- Update development of FastAPI docs, set address to `127.0.0.1` to improve Windows support. PR [#1169](#) by [@mariacamilag](#).
- Add support for docs translations. New docs: [Development - Contributing: Docs: Translations](#). PR [#1168](#).
- Update terminal styles in docs and add note about [Typer, the FastAPI of CLIs](#). PR [#1139](#).

0.52.0

- Add new high-performance JSON response class using `orjson`. New docs: [Custom Response - HTML, Stream, File, others: ORJSONResponse](#). PR [#1065](#).

0.51.0

- Re-export utils from Starlette:
 - This allows using things like `from fastapi.responses import JSONResponse` instead of `from starlette.responses import JSONResponse`.
 - It's mainly syntax sugar, a convenience for developer experience.
 - Now `Request`, `Response`, `WebSocket`, `status` can be imported directly from `fastapi` as in `from fastapi import Response`. This is because those are frequently used, to use the request directly, to set headers and cookies, to get status codes, etc.
 - Documentation changes in many places, but new docs and noticeable improvements:
 - [Custom Response - HTML, Stream, File, others](#).
 - [Advanced Middleware](#).
 - [Including WSGI - Flask, Django, others](#).
 - PR [#1064](#).

0.50.0

- Add link to Release Notes from docs about pinning versions for deployment. PR [#1058](#).
- Upgrade code to use the latest version of Starlette, including:
 - Several bug fixes.
 - Optional redirects of slashes, with or without ending in `/`.
 - Events for routers, `"startup"`, and `"shutdown"`.
 - PR [#1057](#).
- Add docs about pinning FastAPI versions for deployment: [Deployment: FastAPI versions](#). PR [#1056](#).

0.49.2

- Fix links in release notes. PR [#1052](#) by [@sattosan](#).
- Fix typo in release notes. PR [#1051](#) by [@sattosan](#).
- Refactor/clarify `serialize_response` parameter name to avoid confusion. PR [#1031](#) by [@patrickmckenna](#).
- Refactor calling each a path operation's handler function in an isolated function, to simplify profiling. PR [#1027](#) by [@sm-Fifteen](#).
- Add missing dependencies for testing. PR [#1026](#) by [@sm-Fifteen](#).

- Fix accepting valid types for response models, including Python types like `List[int]` . PR [#1017](#) by [@patrickmckenna](#).
- Fix format in SQL tutorial. PR [#1015](#) by [@vegarsti](#).

0.49.1

- Fix path operation duplicated parameters when used in dependencies and the path operation function. PR [#994](#) by [@merowinger92](#).
- Update Netlify previews deployment GitHub action as the fix is already merged and there's a new release. PR [#1047](#).
- Move mypy configurations to config file. PR [#987](#) by [@hukkinj1](#).
- Temporary fix to Netlify previews not deployable from PRs from forks. PR [#1046](#) by [@mariacamilag](#).

0.49.0

- Fix encoding of `pathlib` paths in `jsonable_encoder` . PR [#978](#) by [@patrickmckenna](#).
- Add articles to [External Links: PythonのWeb frameworkのパフォーマンス比較 \(Django, Flask, responder, FastAPI, japronto\)](#) and [\[FastAPI\] Python製のASGI Web フレームワーク FastAPIに入門する](#). PR [#974](#) by [@tokusumi](#).
- Fix broken links in docs. PR [#949](#) by [@tsotnikov](#).
- Fix small typos. PR [#941](#) by [@NikitaKolesov](#).
- Update and clarify docs for dependencies with `yield` . PR [#986](#).
- Add Mermaid JS support for diagrams in docs. Add first diagrams to [Dependencies: First Steps](#) and [Dependencies with yield and HTTPException](#) . PR [#985](#).
- Update CI to run docs deployment in GitHub actions. PR [#983](#).
- Allow `callable` s in *path operation functions*, like functions modified with `functools.partial` . PR [#977](#).

0.48.0

- Run linters first in tests to error out faster. PR [#948](#).
- Log warning about `email-validator` only when used. PR [#946](#).
- Simplify [Peewee docs](#) with double dependency with `yield` . PR [#947](#).
- Add article [External Links: Create and Deploy FastAPI app to Heroku](#). PR [#942](#) by [@windson](#).
- Update description of Sanic, as it is now ASGI too. PR [#932](#) by [@raphaelauv](#).
- Fix typo in main page. PR [#920](#) by [@mMarzeta](#).
- Fix parsing of possibly invalid bodies. PR [#918](#) by [@dmontagu](#).
- Fix typo [#916](#) by [@adursun](#).
- Allow `Any` type for enums in OpenAPI. PR [#906](#) by [@songzhi](#).
- Add article to [External Links: How to continuously deploy a FastAPI to AWS Lambda with AWS SAM](#). PR [#901](#) by [@iwpnd](#).
- Add note about using Body parameters without Pydantic. PR [#900](#) by [@pawamoy](#).
- Fix Pydantic field clone logic. PR [#899](#) by [@deuce2367](#).
- Fix link in middleware docs. PR [#893](#) by [@linchiwei123](#).
- Rename default API title from "Fast API" to "FastAPI" for consistency. PR [#890](#).

0.47.1

- Fix model filtering in `response_model` , cloning sub-models. PR [#889](#).
- Fix FastAPI serialization of Pydantic models using ORM mode blocking the event loop. PR [#888](#).

0.47.0

- Refactor documentation to make a simpler and shorter [Tutorial - User Guide](#) and an additional [Advanced User Guide](#) with all the additional docs. PR [#887](#).
- Tweak external links, Markdown format, typos. PR [#881](#).
- Fix bug in tutorial handling HTTP Basic Auth `username` and `password`. PR [#865](#) by [@isaevpd](#).
- Fix handling form *path operation* parameters declared with pure classes like `list`, `tuple`, etc. PR [#856](#) by [@nsidnev](#).
- Add request `body` to `RequestValidationError`, new docs: [Use the RequestValidationError body](#). Initial PR [#853](#) by [@aviramha](#).
- Update [External Links](#) with new links and dynamic GitHub projects with `fastapi` topic. PR [#850](#).
- Fix Peewee `contextvars` handling in docs: [SQL \(Relational\) Databases with Peewee](#). PR [#879](#).
- Setup development environment with Python's Venv and Flit, instead of requiring the extra Pipenv duplicating dependencies. Updated docs: [Development - Contributing](#). PR [#877](#).
- Update docs for [HTTP Basic Auth](#) to improve security against timing attacks. Initial PR [#807](#) by [@zwass](#).

0.46.0

- Fix typos and tweak configs. PR [#837](#).
- Add link to Chinese article in [External Links](#). PR [810](#) by [@wxq0309](#).
- Implement `OAuth2AuthorizationCodeBearer` class. PR [#797](#) by [@kuwv](#).
- Update example upgrade in docs main page. PR [#795](#) by [@cdeil](#).
- Fix callback handling for sub-routers. PR [#792](#) by [@jekirl](#).
- Fix typos. PR [#784](#) by [@kkinder](#).
- Add 4 Japanese articles to [External Links](#). PR [#783](#) by [@HymanZHAN](#).
- Add support for subtypes of main types in `jsonable_encoder`, e.g. `asyncpg`'s UUIDs. PR [#756](#) by [@RmStorm](#).
- Fix usage of Pydantic's `HttpUrl` in docs. PR [#832](#) by [@Dustyposa](#).
- Fix Twitter links in docs. PR [#813](#) by [@justindujardin](#).
- Add docs for correctly [using FastAPI with Peewee ORM](#). Including how to overwrite parts of Peewee to correctly handle async threads. PR [#789](#).

0.45.0

- Add support for OpenAPI Callbacks:
 - New docs: [OpenAPI Callbacks](#).
 - Refactor generation of `operationId`s to be valid Python names (also valid variables in most languages).
 - Add `default_response_class` parameter to `APIRouter`.
 - Original PR [#722](#) by [@booooh](#).
- Refactor logging to use the same logger everywhere, update log strings and levels. PR [#781](#).
- Add article to [External Links](#): [Почему Вы должны попробовать FastAPI?](#). PR [#766](#) by [@prostomarkeloff](#).
- Remove gender bias in docs for handling errors. PR [#780](#). Original idea in PR [#761](#) by [@classywhetten](#).
- Rename docs and references to `body-schema` to `body-fields` to keep in line with Pydantic. PR [#746](#) by [@prostomarkeloff](#).

0.44.1

- Add GitHub social preview images to git. PR [#752](#).
- Update PyPI "trove classifiers". PR [#751](#).

- Add full support for Python 3.8. Enable Python 3.8 in full in Travis. PR [749](#).
- Update "new issue" templates. PR [749](#).
- Fix serialization of errors for exotic Pydantic types. PR [748](#) by [@dmontagu](#).

0.44.0

- Add GitHub action [Issue Manager](#). PR [742](#).
- Fix typos in docs. PR [734](#) by [@bundabrg](#).
- Fix usage of `custom_encoder` in `jsonable_encoder`. PR [715](#) by [@matrixise](#).
- Fix invalid XML example. PR [710](#) by [@OcasoProtal](#).
- Fix typos and update wording in deployment docs. PR [700](#) by [@marier-nico](#).
- Add note about dependencies in `APIRouter` docs. PR [698](#) by [@marier-nico](#).
- Add support for async class methods as dependencies [#681](#) by [@frankie567](#).
- Add FastAPI with Swagger UI cheatsheet to external links. PR [671](#) by [@euri10](#).
- Fix typo in HTTP protocol in CORS example. PR [647](#) by [@forestmonster](#).
- Add support for Pydantic versions `1.0.0` and above, with temporary (deprecated) backwards compatibility for Pydantic `0.32.2`. PR [646](#) by [@dmontagu](#).

0.43.0

- Update docs to reduce gender bias. PR [645](#) by [@ticosax](#).
- Add docs about [overriding the `operationId` for all the `path operations`](#) based on their function name. PR [642](#) by [@SKalt](#).
- Fix validators in models generating an incorrect key order. PR [637](#) by [@jaddison](#).
- Generate correct OpenAPI docs for responses with no content. PR [621](#) by [@brotskydotcom](#).
- Remove `$` from Bash code blocks in docs for consistency. PR [613](#) by [@nstapelbroek](#).
- Add docs for [self-serving docs' \(Swagger UI\) static assets](#), e.g. to use the docs offline, or without Internet. Initial PR [557](#) by [@svalouch](#).
- Fix `black` linting after upgrade. PR [682](#) by [@frankie567](#).

0.42.0

- Add dependencies with `yield`, a.k.a. exit steps, context managers, cleanup, teardown, ...
 - This allows adding extra code after a dependency is done. It can be used, for example, to close database connections.
 - Dependencies with `yield` can be normal or `async`, **FastAPI** will run normal dependencies in a threadpool.
 - They can be combined with normal dependencies.
 - It's possible to have arbitrary trees/levels of dependencies with `yield` and exit steps are handled in the correct order automatically.
 - It works by default in Python 3.7 or above. For Python 3.6, it requires the extra backport dependencies:
 - `async-exit-stack`
 - `async-generator`
 - New docs at [Dependencies with `yield`](#).
 - Updated database docs [SQL \(Relational\) Databases: Main FastAPI app](#).
 - PR [595](#).
- Fix `sitemap.xml` in website. PR [598](#) by [@samuelcolvin](#).

0.41.0

- Upgrade required Starlette to `0.12.9` , the new range is `>=0.12.9, <=0.12.9` .
 - Add `State` to FastAPI apps at `app.state` .
 - PR [#593](#).
- Improve handling of custom classes for `Request` s and `APIRoute` s.
 - This helps to more easily solve use cases like:
 - Reading a body before and/or after a request (equivalent to a middleware).
 - Run middleware-like code only for a subset of *path operations*.
 - Process a request before passing it to a *path operation function*. E.g. decompressing, deserializing, etc.
 - Processing a response after being generated by *path operation functions* but before returning it. E.g. adding custom headers, logging, adding extra metadata.
 - New docs section: [Custom Request and APIRoute class](#).
 - PR [#589](#) by [@dmontagu](#).
- Fix preserving custom route class in routers when including other sub-routers. PR [#538](#) by [@dmontagu](#).

0.40.0

- Add notes to docs about installing `python-multipart` when using forms. PR [#574](#) by [@sliptonic](#).
- Generate OpenAPI schemas in alphabetical order. PR [#554](#) by [@dmontagu](#).
- Add support for truncating docstrings from *path operation functions*.
 - New docs at [Advanced description from docstring](#).
 - PR [#556](#) by [@svalouch](#).
- Fix `DOCTYPE` in HTML files generated for Swagger UI and ReDoc. PR [#537](#) by [@Trim21](#).
- Fix handling `4XX` responses overriding default `422` validation error responses. PR [#517](#) by [@tsouvarev](#).
- Fix typo in documentation for [Simple HTTP Basic Auth](#). PR [#514](#) by [@prostomarkeloff](#).
- Fix incorrect documentation example in [first steps](#). PR [#511](#) by [@IgnatovFedor](#).
- Add support for Swagger UI [initOAuth](#) settings with the parameter `swagger_ui_init_oauth` . PR [#499](#) by [@zamiramir](#).

0.39.0

- Allow path parameters to have default values (e.g. `None`) and discard them instead of raising an error.
 - This allows declaring a parameter like `user_id: str = None` that can be taken from a query parameter, but the same *path operation* can be included in a router with a path `/users/{user_id}` , in which case will be taken from the path and will be required.
 - PR [#464](#) by [@jonathanunderwood](#).
- Add support for setting a `default_response_class` in the `FastAPI` instance or in `include_router` . Initial PR [#467](#) by [@toppk](#).
- Add support for type annotations using strings and `from __future__ import annotations` . PR [#451](#) by [@dmontagu](#).

0.38.1

- Fix incorrect `Request` class import. PR [#493](#) by [@kamalgill](#).

0.38.0

- Add recent articles to [External Links](#) and recent opinions. PR [#490](#).

- Upgrade support range for Starlette to include `0.12.8` . The new range is `>=0.11.1, <=0.12.8` . PR [#477](#) by [@dmontagu](#).
- Upgrade support to Pydantic version 0.32.2 and update internal code to use it (breaking change). PR [#463](#) by [@dmontagu](#).

0.37.0

- Add support for custom route classes for advanced use cases. PR [#468](#) by [@dmontagu](#).
- Allow disabling Google fonts in ReDoc. PR [#481](#) by [@b1-luettje](#).
- Fix security issue: when returning a sub-class of a response model and using `skip_defaults` it could leak information. PR [#485](#) by [@dmontagu](#).
- Enable tests for Python 3.8-dev. PR [#465](#) by [@Jamim](#).
- Add support and tests for Pydantic dataclasses in `response_model` . PR [#454](#) by [@dconathan](#).
- Fix typo in OAuth2 JWT tutorial. PR [#447](#) by [@pablogamboa](#).
- Use the `media_type` parameter in `Body()` params to set the media type in OpenAPI for `requestBody` . PR [#439](#) by [@divums](#).
- Add article [Deploying a scikit-learn model with ONNX and FastAPI](#) by [\[https://www.linkedin.com/in/nico-axtmann/\]](https://www.linkedin.com/in/nico-axtmann/)(Nico Axtmann). PR [#438](#) by [@naxty](#).
- Allow setting custom `422` (validation error) response/schema in OpenAPI.
 - And use media type from response class instead of fixed `application/json` (the default).
 - PR [#437](#) by [@divums](#).
- Fix using `"default"` extra response with status codes at the same time. PR [#489](#).
- Allow additional responses to use status code ranges (like `5XX` and `4XX`) and `"default"` . PR [#435](#) by [@divums](#).

0.36.0

- Fix implementation for `skip_defaults` when returning a Pydantic model. PR [#422](#) by [@dmontagu](#).
- Fix OpenAPI generation when using the same dependency in multiple places for the same *path operation*. PR [#417](#) by [@dmontagu](#).
- Allow having empty paths in *path operations* used with `include_router` and a `prefix` .
 - This allows having a router for `/cats` and all its *path operations*, while having one of them for `/cats` .
 - Now it doesn't have to be only `/cats/` (with a trailing slash).
 - To use it, declare the path in the *path operation* as the empty string (`""`).
 - PR [#415](#) by [@vitalik](#).
- Fix mypy error after merging PR #415. PR [#462](#).

0.35.0

- Fix typo in routing `assert` . PR [#419](#) by [@pablogamboa](#).
- Fix typo in docs. PR [#411](#) by [@bronsen](#).
- Fix parsing a body type declared with `Union` . PR [#400](#) by [@koxudaxi](#).

0.34.0

- Upgrade Starlette supported range to include the latest `0.12.7` . The new range is `0.11.1, <=0.12.7` . PR [#367](#) by [@dedsm](#).
- Add test for OpenAPI schema with duplicate models from PR [#333](#) by [@dmontagu](#). PR [#385](#).

0.33.0

- Upgrade Pydantic version to `0.30.0` . PR [#384](#) by [@jekirl](#).

0.32.0

- Fix typo in docs for features. PR [#380](#) by [@MartinoMensio](#).
- Fix source code `limit` for example in [Query Parameters](#). PR [#366](#) by [@Smashman](#).
- Update wording in docs about [OAuth2 scopes](#). PR [#371](#) by [@cjlw296](#).
- Update docs for `Enum`s to inherit from `str` and improve Swagger UI rendering. PR [#351](#).
- Fix regression, add Swagger UI deep linking again. PR [#350](#).
- Add test for having path templates in `prefix` of `.include_router` . PR [#349](#).
- Add note to docs: [Include the same router multiple times with different prefix](#) . PR [#348](#).
- Fix OpenAPI/JSON Schema generation for two functions with the same name (in different modules) with the same composite bodies.
 - Composite bodies' IDs are now based on path, not only on route name, as the auto-generated name uses the function names, that can be duplicated in different modules.
 - The same new ID generation applies to response models.
 - This also changes the generated title for those models.
 - Only composite bodies and response models are affected because those are generated dynamically, they don't have a module (a Python file).
 - This also adds the possibility of using `.include_router()` with the same `APIRouter` *multiple* times, with different prefixes, e.g. `/api/v2` and `/api/latest` , and it will now work correctly.
 - PR [#347](#).

0.31.0

- Upgrade Pydantic supported version to `0.29.0` .
 - New supported version range is `"pydantic >=0.28, <=0.29.0"` .
 - This adds support for Pydantic [Generic Models](#), kudos to [@dmontagu](#).
 - PR [#344](#).

0.30.1

- Add section in docs about [External Links and Articles](#). PR [#341](#).
- Remove `Pipfile.lock` from the repository as it is only used by FastAPI contributors (developers of FastAPI itself). See the PR for more details. PR [#340](#).
- Update section about [Help FastAPI - Get Help](#). PR [#339](#).
- Refine internal type declarations to improve/remove Mypy errors in users' code. PR [#338](#).
- Update and clarify [SQL tutorial with SQLAlchemy](#). PR [#331](#) by [@mariacamilagj](#).
- Add SQLite [online viewers to the docs](#). PR [#330](#) by [@cyrilbois](#).

0.30.0

- Add support for Pydantic's ORM mode:
 - Updated documentation about SQL with SQLAlchemy, using Pydantic models with ORM mode, SQLAlchemy models with relations, separation of files, simplification of code and other changes. New docs: [SQL \(Relational\) Databases](#).
 - The new support for ORM mode fixes issues/adds features related to ORMs with lazy-loading, hybrid properties, dynamic/getters (using `@property` decorators) and several other use cases.
 - This applies to ORMs like SQLAlchemy, Peewee, Tortoise ORM, GINO ORM and virtually any other.
 - If your *path operations* return an arbitrary object with attributes (e.g. `my_item.name` instead of `my_item["name"]`) AND you use a `response_model`, make sure to update the Pydantic models with `orm_mode = True` as described in the docs (link above).
 - New documentation about receiving plain `dict`s as request bodies: [Bodies of arbitrary dict s](#).
 - New documentation about returning arbitrary `dict`s in responses: [Response with arbitrary dict](#).
 - **Technical Details:**
 - When declaring a `response_model` it is used directly to generate the response content, from whatever was returned from the *path operation function*.
 - Before this, the return content was first passed through `jsonable_encoder` to ensure it was a "jsonable" object, like a `dict`, instead of an arbitrary object with attributes (like an ORM model). That's why you should make sure to update your Pydantic models for objects with attributes to use `orm_mode = True`.
 - If you don't have a `response_model`, the return object will still be passed through `jsonable_encoder` first.
 - When a `response_model` is declared, the same `response_model` type declaration won't be used as is, it will be "cloned" to create a new one (a cloned Pydantic `Field` with all the submodels cloned as well).
 - This avoids/fixes a potential security issue: as the returned object is passed directly to Pydantic, if the returned object was a subclass of the `response_model` (e.g. you return a `UserInDB` that inherits from `User` but contains extra fields, like `hashed_password`, and `User` is used in the `response_model`), it would still pass the validation (because `UserInDB` is a subclass of `User`) and the object would be returned as-is, including the `hashed_password`. To fix this, the declared `response_model` is cloned, if it is a Pydantic model class (or contains Pydantic model classes in it, e.g. in a `List[Item]`), the Pydantic model class(es) will be a different one (the "cloned" one). So, an object that is a subclass won't simply pass the validation and returned as-is, because it is no longer a sub-class of the cloned `response_model`. Instead, a new Pydantic model object will be created with the contents of the returned object. So, it will be a new object (made with the data from the returned one), and will be filtered by the cloned `response_model`, containing only the declared fields as normally.
 - PR [#322](#).
- Remove/clean unused RegEx code in routing. PR [#314](#) by [@dmontagu](#).
- Use default response status code descriptions for additional responses. PR [#313](#) by [@duxiaoyao](#).

- Upgrade Pydantic support to `0.28` . PR [#320](#) by [@jekirl](#).

0.29.1

- Fix handling an empty-body request with a required body param. PR [#311](#).
- Fix broken link in docs: [Return a Response directly](#). PR [#306](#) by [@dmontagu](#).
- Fix docs discrepancy in docs for [Response Model](#). PR [#288](#) by [@awiddersheim](#).

0.29.0

- Add support for declaring a `Response` parameter:
 - This allows declaring:
 - [Response Cookies](#).
 - [Response Headers](#).
 - An HTTP Status Code different than the default: [Response - Change Status Code](#).
 - All of this while still being able to return arbitrary objects (`dict` , DB model, etc).
 - Update attribution to Hug, for inspiring the `response` parameter pattern.
 - PR [#294](#).

0.28.0

- Implement dependency cache per request.
 - This avoids calling each dependency multiple times for the same request.
 - This is useful while calling external services, performing costly computation, etc.
 - This also means that if a dependency was declared as a *path operation decorator* dependency, possibly at the router level (with `.include_router()`) and then it is declared again in a specific *path operation*, the dependency will be called only once.
 - The cache can be disabled per dependency declaration, using `use_cache=False` as in `Depends(your_dependency, use_cache=False)` .
 - Updated docs at: [Using the same dependency multiple times](#).
 - PR [#292](#).
- Implement dependency overrides for testing.
 - This allows using overrides/mocks of dependencies during tests.
 - New docs: [Testing Dependencies with Overrides](#).
 - PR [#291](#).

0.27.2

- Fix path and query parameters receiving `dict` as a valid type. It should be mapped to a body payload. PR [#287](#). Updated docs at: [Query parameter list / multiple values with defaults: Using `list`](#) .

0.27.1

- Fix `auto_error=False` handling in `HTTPBearer` security scheme. Do not `raise` when there's an incorrect `Authorization` header if `auto_error=False` . PR [#282](#).
- Fix type declaration of `HTTPException` . PR [#279](#).

0.27.0

- Fix broken link in docs about OAuth 2.0 with scopes. PR [#275](#) by [@dmontagu](#).
- Refactor param extraction using Pydantic `Field` :
 - Large refactor, improvement, and simplification of param extraction from *path operations*.
 - Fix/add support for list *query parameters* with list defaults. New documentation: [Query parameter list / multiple values with defaults](#).
 - Add support for enumerations in *path operation* parameters. New documentation: [Path Parameters: Predefined values](#).
 - Add support for type annotations using `Optional` as in `param: Optional[str] = None` . New documentation: [Optional type declarations](#).
 - PR [#278](#).

0.26.0

- Separate error handling for validation errors.
 - This will allow developers to customize the exception handlers.
 - Document better how to handle exceptions and use error handlers.
 - Include `RequestValidationError` and `WebSocketRequestValidationError` (this last one will be useful once [encode/starlette#527](#) or equivalent is merged).
 - New documentation about exceptions handlers:
 - [Install custom exception handlers](#).
 - [Override the default exception handlers](#).
 - [Re-use FastAPI's exception handlers](#).
 - PR [#273](#).
- Fix support for *paths* in *path parameters* without needing explicit `Path(...)` .
 - PR [#256](#).
 - Documented in PR [#272](#) by [@wshayes](#).
 - New documentation at: [Path Parameters containing paths](#).
- Update docs for testing FastAPI. Include using `POST` , sending JSON, testing headers, etc. New documentation: [Testing](#). PR [#271](#).
- Fix type declaration of `response_model` to allow generic Python types as `List[Model]` . Mainly to fix `mypy` for users. PR [#266](#).

0.25.0

- Add support for Pydantic's `include` , `exclude` , `by_alias` .
 - Update documentation: [Response Model](#).
 - Add docs for: [Body - updates](#), using Pydantic's `skip_defaults` .
 - Add method consistency tests.
 - PR [#264](#).
- Add `CONTRIBUTING.md` file to GitHub, to help new contributors. PR [#255](#) by [@wshayes](#).

- Add support for Pydantic's `skip_defaults` :
 - There's a new *path operation decorator* parameter `response_model_skip_defaults` .
 - The name of the parameter will most probably change in a future version to `response_skip_defaults` , `model_skip_defaults` or something similar.
 - New [documentation section about using `response_model_skip_defaults`](#) .
 - PR [#248](#) by [@wshayes](#).

0.24.0

- Add support for WebSockets with dependencies and parameters.
 - Support included for:
 - `Depends`
 - `Security`
 - `Cookie`
 - `Header`
 - `Path`
 - `Query`
 - ...as these are compatible with the WebSockets protocol (e.g. `Body` is not).
 - [Updated documentation for WebSockets](#).
 - PR [#178](#) by [@jekirl](#).
- Upgrade the compatible version of Pydantic to `0.26.0` .
 - This includes JSON Schema support for IP address and network objects, bug fixes, and other features.
 - PR [#247](#) by [@euri10](#).

0.23.0

- Upgrade the compatible version of Starlette to `0.12.0` .
 - This includes support for ASGI 3 (the latest version of the standard).
 - It's now possible to use [Starlette's `StreamingResponse`](#) with iterators, like [file-like](#) objects (as those returned by `open()`).
 - It's now possible to use the low level utility `iterate_in_threadpool` from `starlette.concurrency` (for advanced scenarios).
 - PR [#243](#).
- Add OAuth2 redirect page for Swagger UI. This allows having delegated authentication in the Swagger UI docs. For this to work, you need to add `{your_origin}/docs/oauth2-redirect` to the allowed callbacks in your OAuth2 provider (in Auth0, Facebook, Google, etc).
 - For example, during development, it could be `http://localhost:8000/docs/oauth2-redirect` .
 - Have in mind that this callback URL is independent of whichever one is used by your frontend. You might also have another callback at `https://yourdomain.com/login/callback` .
 - This is only to allow delegated authentication in the API docs with Swagger UI.
 - PR [#198](#) by [@steinitzu](#).

- Make Swagger UI and ReDoc route handlers (*path operations*) be `async` functions instead of lambdas to improve performance. PR [#241](#) by [@Trim21](#).
- Make Swagger UI and ReDoc URLs parameterizable, allowing to host and serve local versions of them and have offline docs. PR [#112](#) by [@euri10](#).

0.22.0

- Add support for `dependencies` parameter:
 - A parameter in *path operation decorators*, for dependencies that should be executed but the return value is not important or not used in the *path operation function*.
 - A parameter in the `.include_router()` method of FastAPI applications and routers, to include dependencies that should be executed in each *path operation* in a router.
 - This is useful, for example, to require authentication or permissions in specific group of *path operations*.
 - Different `dependencies` can be applied to different routers.
 - These `dependencies` are run before the normal parameter dependencies. And normal dependencies are run too. They can be combined.
 - Dependencies declared in a router are executed first, then the ones defined in *path operation decorators*, and then the ones declared in normal parameters. They are all combined and executed.
 - All this also supports using `Security` with `scopes` in those `dependencies` parameters, for more advanced OAuth 2.0 security scenarios with scopes.
 - New documentation about [dependencies in path operation decorators](#).
 - New documentation about [dependencies in the `.include_router\(\)` method](#).
 - PR [#235](#).
- Fix OpenAPI documentation of Starlette URL convertors. Specially useful when using `path` convertors, to take a whole path as a parameter, like `/some/url/{p:path}` . PR [#234](#) by [@euri10](#).
- Make default parameter utilities exported from `fastapi` be functions instead of classes (the new functions return instances of those classes). To be able to override the return types and fix `mypy` errors in FastAPI's users' code. Applies to `Path` , `Query` , `Header` , `Cookie` , `Body` , `Form` , `File` , `Depends` , and `Security` . PR [#226](#) and PR [#231](#).
- Separate development scripts `test.sh` , `lint.sh` , and `format.sh` . PR [#232](#).
- Re-enable `black` formatting checks for Python 3.7. PR [#229](#) by [@zamiramir](#).

0.21.0

- On body parsing errors, raise `from` previous exception, to allow better introspection in logging code. PR [#192](#) by [@ricardomomm](#).
- Use Python logger named `"fastapi"` instead of root logger. PR [#222](#) by [@euri10](#).
- Upgrade Pydantic to version 0.25. PR [#225](#) by [@euri10](#).
- Fix typo in routing. PR [#221](#) by [@djlambert](#).

0.20.1

- Add typing information to package including file `py.typed`. PR [#209](#) by [@meadsteve](#).
- Add FastAPI bot for Gitter. To automatically announce new releases. PR [#189](#).

0.20.0

- Upgrade OAuth2:
 - Upgrade Password flow using Bearer tokens to use the correct HTTP status code 401 `UNAUTHORIZED`, with `WWW-Authenticate` headers.
 - Update, simplify, and improve all the [security docs](#).
 - Add new `scope_str` to `SecurityScopes` and update docs: [OAuth2 scopes](#).
 - Update docs, images, tests.
 - PR [#188](#).
- Include [Hypercorn](#) as an alternative ASGI server in the docs. PR [#187](#).
- Add docs for [Static Files](#) and [Templates](#). PR [#186](#).
- Add docs for handling [Response Cookies](#) and [Response Headers](#). PR [#185](#).
- Fix typos in docs. PR [#176](#) by [@chdsbd](#).

0.19.0

- Rename *path operation decorator* parameter `content_type` to `response_class`. PR [#183](#).
- Add docs:
 - How to use the `jsonable_encoder` in [JSON compatible encoder](#).
 - How to [Return a Response directly](#).
 - Update how to use a [Custom Response Class](#).
 - PR [#184](#).

0.18.0

- Add docs for [HTTP Basic Auth](#). PR [#177](#).
- Upgrade HTTP Basic Auth handling with automatic headers (automatic browser login prompt). PR [#175](#).
- Update dependencies for security. PR [#174](#).
- Add docs for [Middleware](#). PR [#173](#).

0.17.0

- Make Flit publish from CI. PR [#170](#).
- Add documentation about handling [CORS \(Cross-Origin Resource Sharing\)](#). PR [#169](#).
- By default, encode by alias. This allows using Pydantic `alias` parameters working by default. PR [#168](#).

0.16.0

- Upgrade `path operation docstring` parsing to support proper Markdown descriptions. New documentation at [Path Operation Configuration](#). PR [#163](#).
- Refactor internal usage of Pydantic to use correct data types. PR [#164](#).
- Upgrade Pydantic to version `0.23`. PR [#160](#) by [@euri10](#).
- Fix typo in Tutorial about Extra Models. PR [#159](#) by [@danielmichaels](#).
- Fix [Query Parameters](#) URL examples in docs. PR [#157](#) by [@hayata-yamamoto](#).

0.15.0

- Add support for multiple file uploads (as a single form field). New docs at: [Multiple file uploads](#). PR [#158](#).
- Add docs for: [Additional Status Codes](#). PR [#156](#).

0.14.0

- Improve automatically generated names of `path operations` in OpenAPI (in API docs). A function `read_items` instead of having a generated name "Read Items Get" will have "Read Items". PR [#155](#).
- Add docs for: [Testing FastAPI](#). PR [#151](#).
- Update `/docs` Swagger UI to enable deep linking. This allows sharing the URL pointing directly to the `path operation` documentation in the docs. PR [#148](#) by [@wshayes](#).
- Update development dependencies, `Pipfile.lock`. PR [#150](#).
- Include Falcon and Hug in: [Alternatives, Inspiration and Comparisons](#).

0.13.0

- Improve/upgrade OAuth2 scopes support with `SecurityScopes` :
 - `SecurityScopes` can be declared as a parameter like `Request`, to get the scopes of all super-dependencies/dependants.
 - Improve `Security` handling, merging scopes when declaring `SecurityScopes`.
 - Allow using `SecurityBase` (like `OAuth2`) classes with `Depends` and still document them. `Security` now is needed only to declare `scopes`.
 - Updated docs about: [OAuth2 with Password \(and hashing\), Bearer with JWT tokens](#).
 - New docs about: [OAuth2 scopes](#).
 - PR [#141](#).

0.12.1

- Fix bug: handling additional `responses` in `APIRouter.include_router()`. PR [#140](#).
- Fix typo in SQL tutorial. PR [#138](#) by [@mostaphaRoudsari](#).
- Fix typos in section about nested models and OAuth2 with JWT. PR [#127](#) by [@mmcloud](#).

0.12.0

- Add additional `responses` parameter to *path operation decorators* to extend responses in OpenAPI (and API docs).
 - It also allows extending existing responses generated from `response_model`, declare other media types (like images), etc.
 - The new documentation is here: [Additional Responses](#).
 - `responses` can also be added to `.include_router()`, the updated docs are here: [Bigger Applications](#).
 - PR [#97](#) originally initiated by [@barsi](#).
- Update `scripts/test-cov-html.sh` to allow passing extra parameters like `-vv`, for development.

0.11.0

- Add `auto_error` parameter to security utility functions. Allowing them to be optional. Also allowing to have multiple alternative security schemes that are then checked in a single dependency instead of each one verifying and returning the error to the client automatically when not satisfied. PR [#134](#).
- Update [SQL Tutorial](#) to close database sessions even when there are exceptions. PR [#89](#) by [@alexiri](#).
- Fix duplicate dependency in `pyproject.toml`. PR [#128](#) by [@zxalif](#).

0.10.3

- Add Gitter chat, badge, links, etc. <https://gitter.im/tiangolo/fastapi>. PR [#117](#).
- Add docs about [Extending OpenAPI](#). PR [#126](#).
- Make Travis run Ubuntu Xenial (newer version) and Python 3.7 instead of Python 3.7-dev. PR [#92](#) by [@blueyed](#).
- Fix duplicated param variable creation. PR [#123](#) by [@yihuang](#).
- Add note in [Response Model docs](#) about why using a function parameter instead of a function return type annotation. PR [#109](#) by [@JHSaunders](#).
- Fix event docs (startup/shutdown) function name. PR [#105](#) by [@stratosgear](#).

0.10.2

- Fix OpenAPI (JSON Schema) for declarations of Python `Union` (JSON Schema `additionalProperties`). PR [#121](#).
- Update [Background Tasks](#) with a note on Celery.
- Document response models using unions and lists, updated at: [Extra Models](#). PR [#108](#).

0.10.1

- Add docs and tests for [encode/databases](#). New docs at: [Async SQL \(Relational\) Databases](#). PR [#107](#).

0.10.0

- Add support for Background Tasks in *path operation functions* and dependencies. New documentation about [Background Tasks is here](#). PR [#103](#).

- Add support for `.websocket_route()` in `APIRouter`. PR [#100](#) by [@euri10](#).
- New docs section about [Events: startup - shutdown](#). PR [#99](#).

0.9.1

- Document receiving [Multiple values with the same query parameter](#) and [Duplicate headers](#). PR [#95](#).

0.9.0

- Upgrade compatible Pydantic version to `0.21.0`. PR [#90](#).
- Add documentation for: [Application Configuration](#).
- Fix typo in docs. PR [#76](#) by [@matthewhegarty](#).
- Fix link in "Deployment" to "Bigger Applications".

0.8.0

- Make development scripts executable. PR [#76](#) by [@euri10](#).
- Add support for adding `tags` in `app.include_router()`. PR [#55](#) by [@euri10](#). Documentation updated in the section: [Bigger Applications](#).
- Update docs related to Uvicorn to use new `--reload` option from version `0.5.x`. PR [#74](#).
- Update `isort` imports and scripts to be compatible with newer versions. PR [#75](#).

0.7.1

- Update [technical details about `async_def` handling](#) with respect to previous frameworks. PR [#64](#) by [@haizaar](#).
- Add [deployment documentation for Docker in Raspberry Pi](#) and other architectures.
- Trigger Docker images build on Travis CI automatically. PR [#65](#).

0.7.0

- Add support for `UploadFile` in `File` parameter annotations.
 - This includes a file-like interface.
 - Here's the updated documentation for declaring [File parameters with `UploadFile`](#).
 - And here's the updated documentation for using [Form parameters mixed with `File` parameters, supporting `bytes` and `UploadFile`](#) at the same time.
 - PR [#63](#).

0.6.4

- Add [technical details about `async_def` handling to docs](#). PR [#61](#).
- Add docs for [Debugging FastAPI applications in editors](#).

- Clarify [Bigger Applications deployed with Docker](#).
- Fix typos in docs.
- Add section about [History, Design and Future](#).
- Add docs for using [WebSockets with FastAPI](#). PR [#62](#).

0.6.3

- Add Favicons to docs. PR [#53](#).

0.6.2

- Introduce new project generator based on FastAPI and PostgreSQL: <https://github.com/tyangolo/full-stack-fastapi-postgresql>. PR [#52](#).
- Update [SQL tutorial with SQLAlchemy, using Depends](#) to improve editor support and reduce code repetition. PR [#52](#).
- Improve middleware naming in tutorial for SQL with SQLAlchemy <https://fastapi.tiangolo.com/tutorial/sql-databases/>.

0.6.1

- Add docs for GraphQL: <https://fastapi.tiangolo.com/advanced/graphql/>. PR [#48](#).

0.6.0

- Update SQL with SQLAlchemy tutorial at <https://fastapi.tiangolo.com/tutorial/sql-databases/> using the new official `request.state`. PR [#45](#).
- Upgrade Starlette to version `0.11.1` and add required compatibility changes. PR [#44](#).

0.5.1

- Add section about [helping and getting help with FastAPI](#).
- Add note about [path operations order in docs](#).
- Update [section about error handling](#) with more information and make relation with Starlette error handling utilities more explicit. PR [#41](#).
- Add [Development - Contributing section to the docs](#). PR [#42](#).

0.5.0

- Add new `HTTPException` with support for custom headers. With new documentation for handling errors at: <https://fastapi.tiangolo.com/tutorial/handling-errors/>. PR [#35](#).
- Add [documentation to use Starlette Request object](#) directly. Check [#25](#) by [@euri10](#).
- Add issue templates to simplify reporting bugs, getting help, etc: [#34](#).

- Update example for the SQLAlchemy tutorial at <https://fastapi.tiangolo.com/tutorial/sql-databases/> using middleware and database session attached to request.

0.4.0

- Add `openapi_prefix`, support for reverse proxy and mounting sub-applications. See the docs at <https://fastapi.tiangolo.com/advanced/sub-applications-proxy/>: #26 by @kabirkhan.
- Update [docs/tutorial for SQLAlchemy](#) including note about *DB Browser for SQLite*.

0.3.0

- Fix/add SQLAlchemy support, including ORM, and update [docs for SQLAlchemy](#): #30.

0.2.1

- Fix `jsonable_encoder` for Pydantic models with `Config` but without `json_encoders`: #29.

0.2.0

- Fix typos in Security section: #24 by @kkinder.
- Add support for Pydantic custom JSON encoders: #21 by @euri10.

0.1.19

- Upgrade Starlette version to the current latest `0.10.1`: #17 by @euri10.