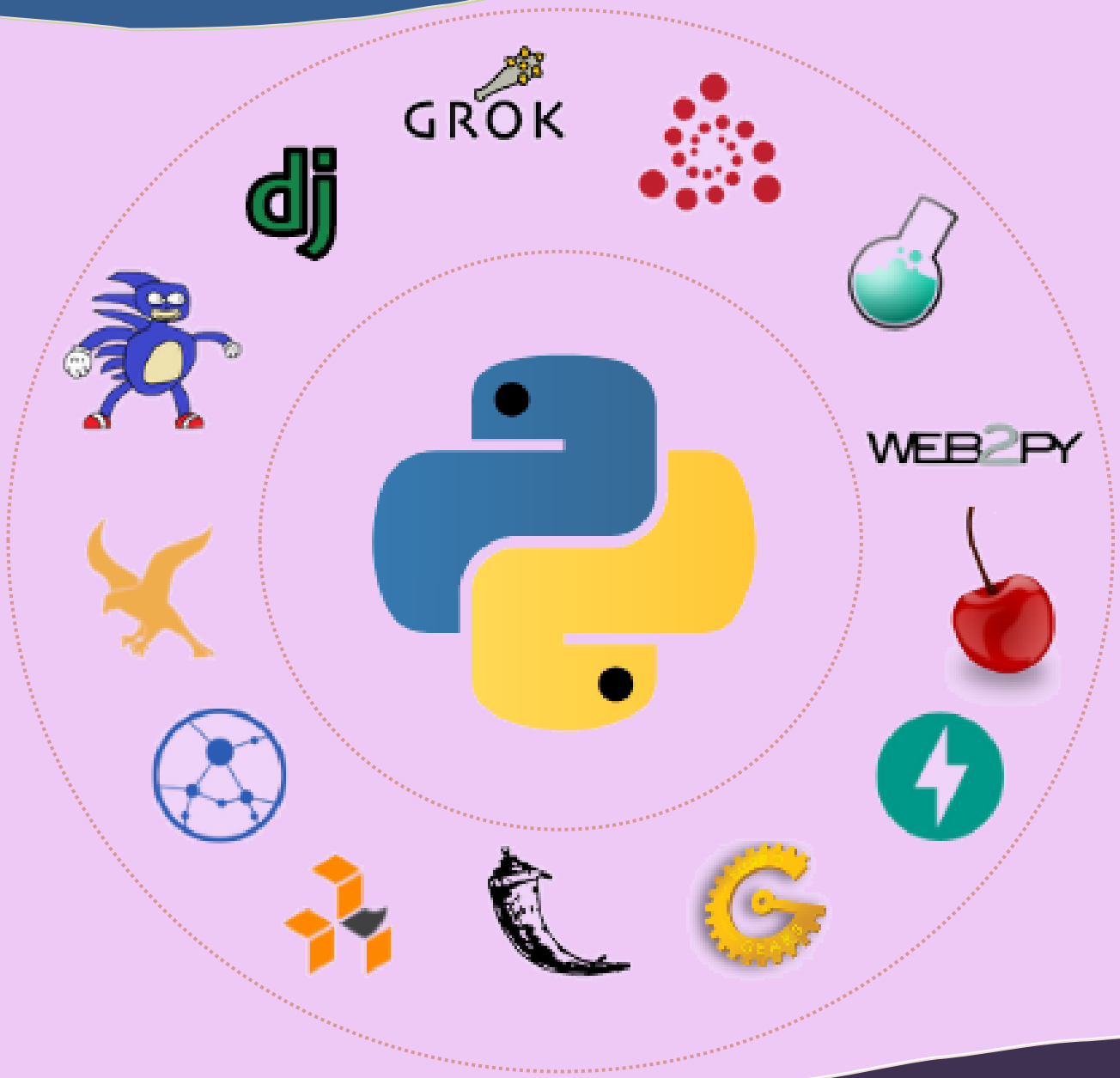
Top Python Web Frameworks



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@shankardayalsingh

Python is a popular programming language that is widely used for web development. One of the reasons for its popularity is the availability of various web frameworks that make web development easier and faster.

This document will cover the top Python web frameworks that you should consider for your next web development projects.

Why to use Python?

Python is a versatile language that can be used for various purposes, including web development. Here are some reasons why Python is a smart choice for web development:

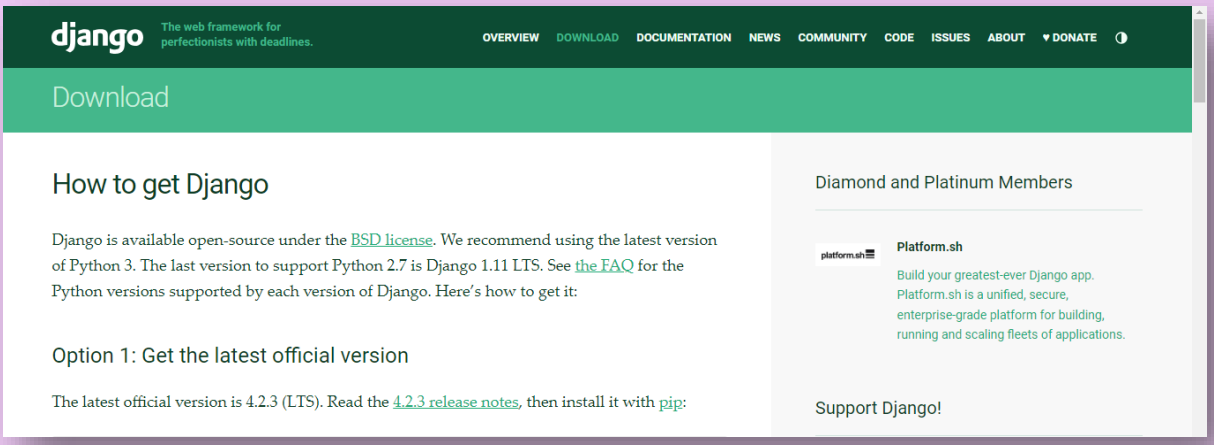
- **Flexibility:** Python is a flexible language that can be used for both front-end and back-end development.
- **Large community:** Python has a large community of developers who contribute to its development and create libraries and frameworks.
- **Easy to learn:** Python has a simple syntax and is easy to learn for beginners.
- **Scalability:** Python is a scalable language that can handle large-scale web applications.

Python Web Frameworks:

There are many Python web frameworks available, each with its own strengths and weaknesses. Here are the top Python web frameworks that you should consider:

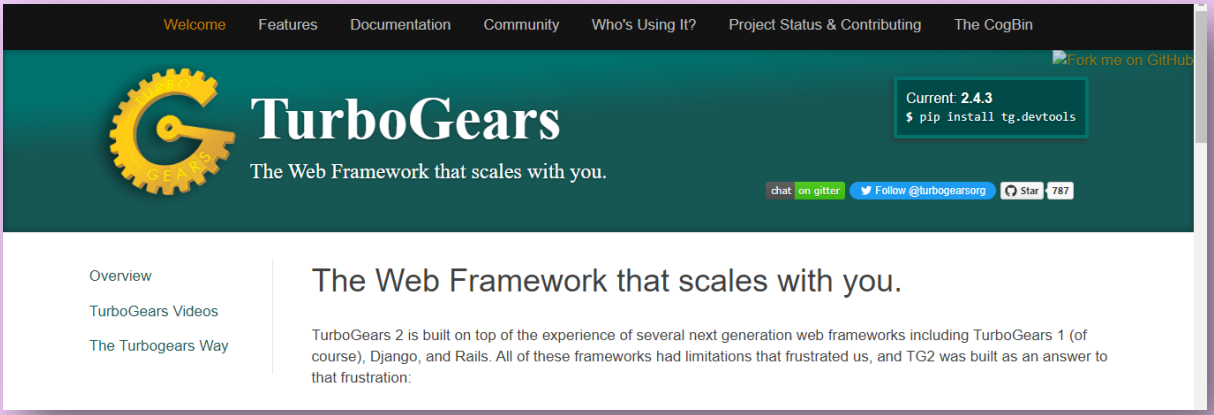
☑ Django

Django is a full-stack web framework that is widely used for web development. It follows the DRY (Don't Repeat Yourself) principle, which means that developers can reuse code and avoid repetition. Django comes with many built-in features, including an ORM (Object-Relational Mapping) system, URL routing, and a templating engine. It is also known for its excellent documentation and large community.
Click: https://www.djangoproject.com/



☑ TurboGears

TurboGears is a full-stack web framework that is designed to be modular and flexible. It comes with many built-in features, including an ORM (Object-Relational Mapping) system, URL routing, and a templating engine. TurboGears is known for its ease of use and scalability.
Click: https://www.turbogears.org/



☑ Web2Py

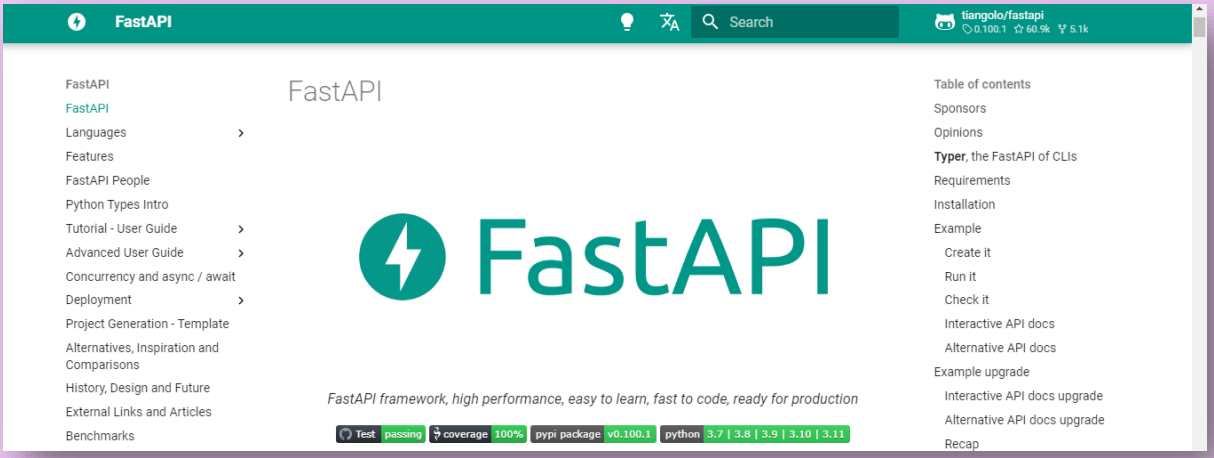
Web2Py is a full-stack web framework that is designed for rapid development. It comes with many built-in features, including an ORM system, URL routing, and a templating engine. Web2Py is also known for its security features, which makes it a popular choice for web applications that handle sensitive data.

Click: http://www.web2py.com/

☑ FastAPI

FastAPI is a modern web framework that is designed for high performance. It is built on top of the Starlette framework and uses the Pydantic validation. FastAPI is known for its speed and ease of use. It comes with many built in features, including URL routing, a templating engine, and an ORM system.

Click: https://fastapi.tiangolo.com/



☑ Flask

Flask is a micro web framework that is lightweight and easy to use. It is known for its simplicity and flexibility, which makes it a popular choice for small to medium sized web applications. Flask comes with a built-in development server and a templating engine. It also supports extensions, which allows developers to add functionality to their applications easily.

Click: https://flask.palletsprojects.com/en/2.3.x/

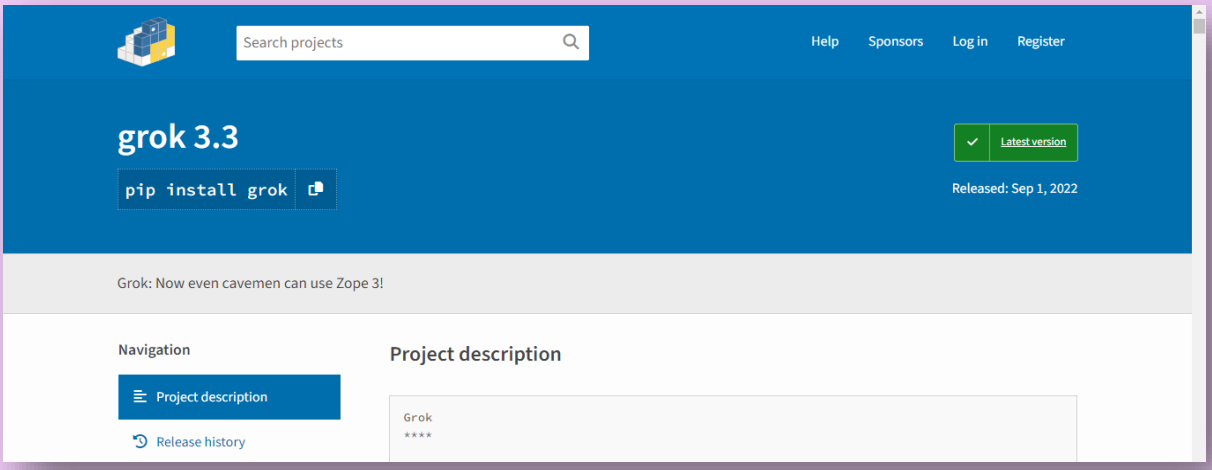
☑ Bottle

Bottle is a micro web framework that is lightweight and easy to use. It is known for its simplicity and flexibility, which makes it a popular choice for small to medium sized web applications. Bottle comes with a built-in development server and a templating engine. It also supports plugins, which allows developers to add functionality to their applications easily.

Click: https://bottlepy.org/docs/dev/

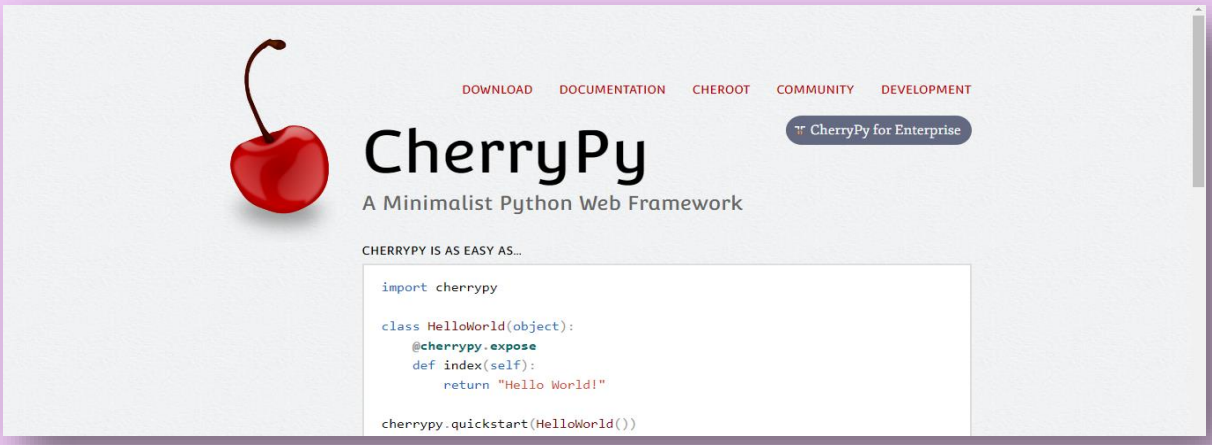
☑ Grok

Grok is a web framework that is built on top of Zope. It aims to provide an easier learning curve and comes with many built-in features, including URL routing, a templating engine, and an ORM system. Grok is known for its simplicity and flexibility.
Click: https://pypi.org/project/grok/



☑ CherryPy

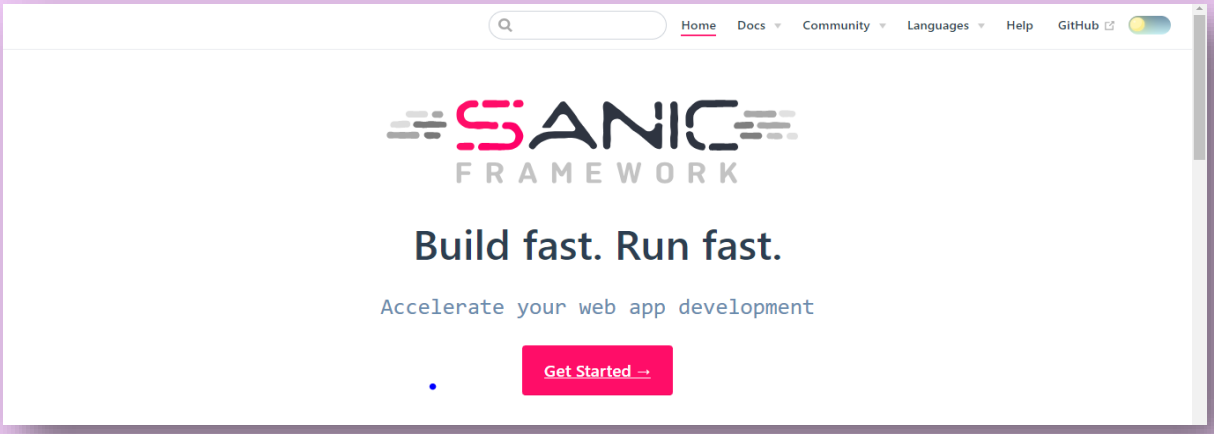
CherryPy is a minimalist web framework that is lightweight and easy to use. It is known for its simplicity and flexibility, which makes it a popular choice for small to medium-sized web applications. CherryPy comes with a built-in web server and a templating engine. It also supports plugins, which allows developers to add functionality to their applications easily.
Click: https://cherrypy.dev/



☑ Sanic

Sanic is a web framework that is designed for high performance. It is built on top of asyncio and uvloop, which makes it fast and scalable. Sanic comes with many built-in features, including URL routing, a templating engine, and an ORM system. It is known for its speed and ease of use.

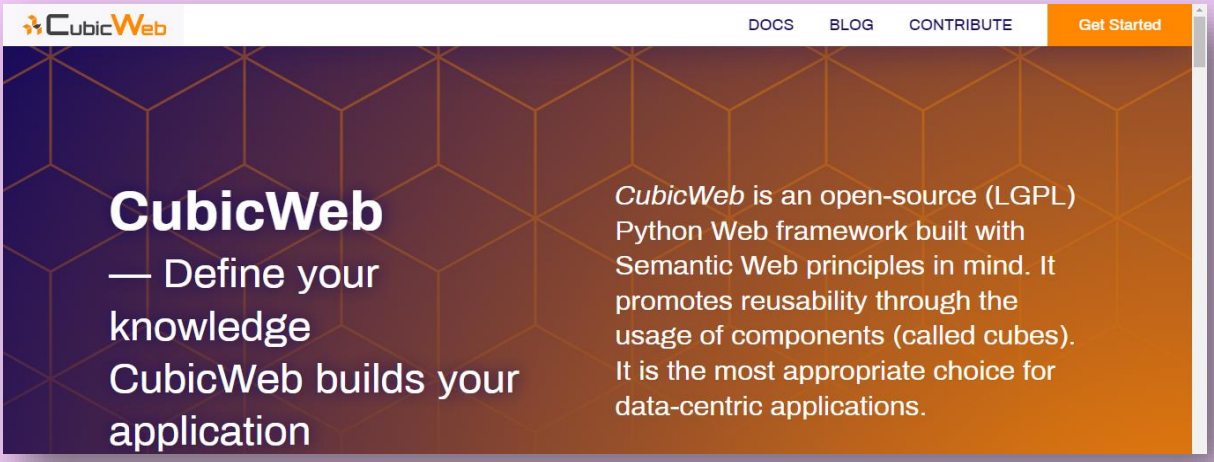
Click: https://sanicframework.org/



☑ CubicWeb

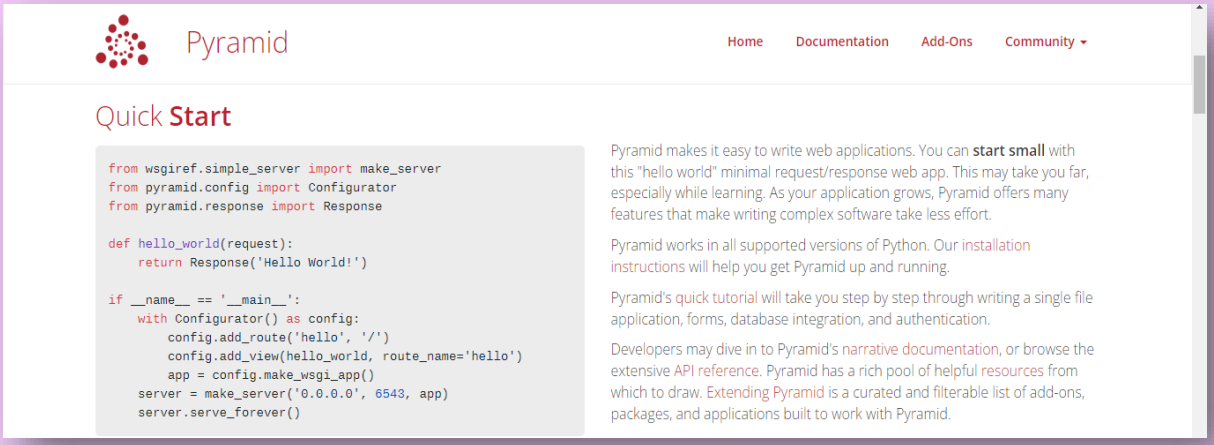
CubicWeb is a full-stack web framework that is designed for rapid development. It comes with many built-in features, including an ORM system, URL routing, and a templating engine. CubicWeb is also known for its security features, which makes it a popular choice for web applications that handle sensitive data.

Click: https://www.cubicweb.org/



☑ Pyramid

Pyramid is a full-stack web framework that is known for its flexibility and scalability. It is designed to be modular, which means that developers can choose the components they need and leave out the ones they don't. Pyramid comes with many built-in features, including URL routing, a templating engine, and an ORM system.
Click: https://trypyramid.com/



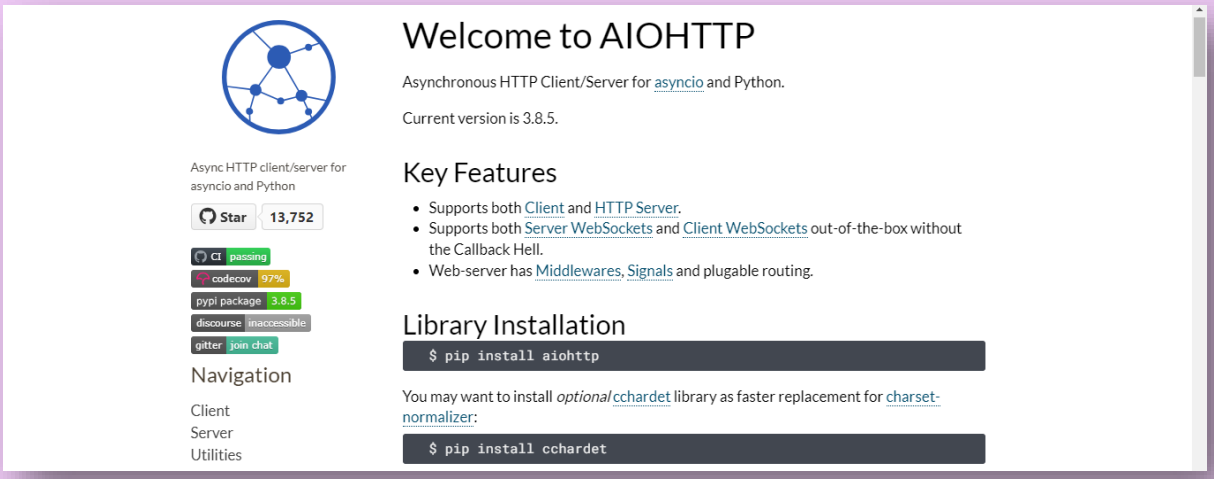
☑ Falcon

Falcon is a minimalist web framework that is designed for high performance. It is known for its speed and simplicity, which makes it a popular choice for small to medium-sized web applications. Falcon comes with many built including URL routing, a templating engine, and an ORM system.
Click: https://falconframework.org/

☑ AioHTTP

AioHTTP is a web framework that is built on top of asyncio. It is designed for high performance and comes with many built-in templating engine, and an ORM system. AioHTTP is known for its speed and ease of use.

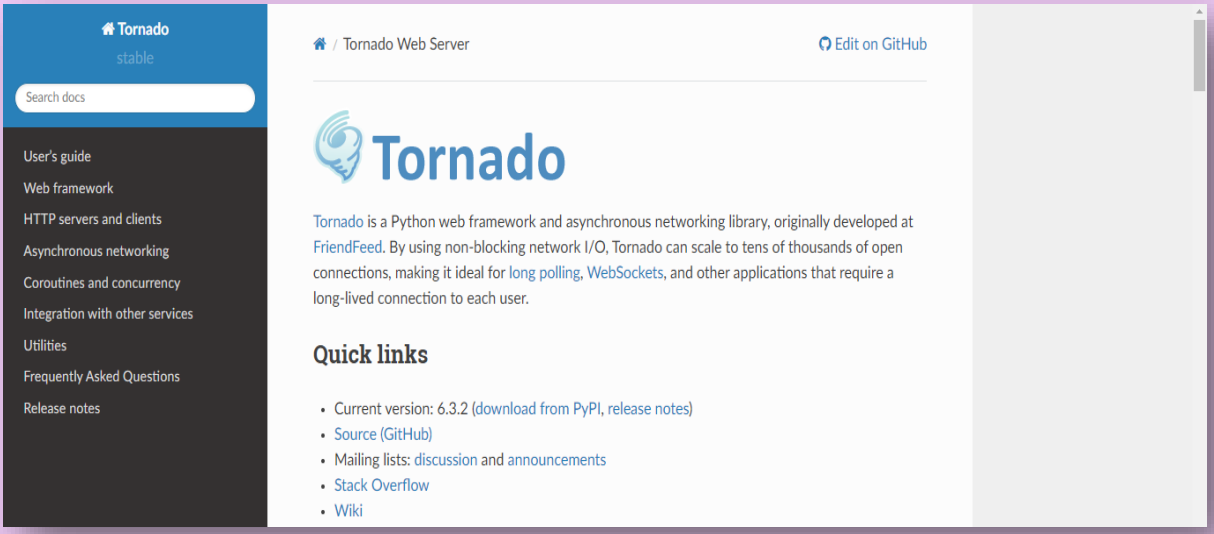
Click: https://docs.aiohttp.org/en/stable/



☑ Tornado

Tornado is a scalable web framework that is known for its speed and simplicity. It is designed to handle large-scale web applications and comes with many buil-in features, including URL routing, a templating engine, and an ORM system.

Click: https://www.tornadoweb.org/en/stable/



However, there are also some drawbacks to using Python web frameworks, including:

- **Lack of documentation:** Some Python web frameworks, such as Flask, may lack sufficient documentation, which can be a downside for beginners
- **Lags in certain areas:** While Python is a leading programming language, it may lag in certain areas, such as database connectivity.
- **High memory consumption:** Python web development has high memory consumption, which can be a drawback.
- **Not suitable for real-world applications:** Brython, which is used for running Python on web browsers, is not suitable for real-world applications.
- **Slow execution:** Python is slower than some other programming languages, which can hinder the speed of code execution.

In summary, while Python web frameworks have many advantages, they also have some drawbacks that developers should be aware of before choosing a framework for their project. Each of these frameworks has its own strengths and weaknesses, so it's important to choose the one that best fits your needs.

Thank You

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Happy Coding!!!