Flask (web framework)

Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries.[3] It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions. However, Flask supports extensions that can add application features as if they were implemented in Flask itself. Extensions exist for object-relational mappers, form validation, upload handling, various open authentication technologies and several common framework related tools. Extensions are updated far more frequently than the core Flask program.[4]

Applications that use the Flask framework include Pinterest and LinkedIn.[5][6]

Flask	
Developer(s)	Armin Ronacher
Initial release	April 1, 2010
Stable release	1.1.1 / July 8, 2019[1][2]
Repository	github.com /pallets/flask (h ttps://github.co m/pallets/flask)
Written in	Python
Type	Web framework
License	BSD
Website	palletsprojects .com/p/flask/ (h ttps://palletspro jects.com/p/fla sk/)

Contents

History

Flask was created by Armin Ronacher of Pocoo, an international group of Python enthusiasts formed in 2004.[7] According to Ronacher, the idea was originally an April Fool's joke that was popular enough to make into a serious application.[8][9][10]

When Ronacher and Georg Brandl created a bulletin board system written in Python, the Pocoo projects Werkzeug and Jinja were developed.[11]

Flask has become popular among Python enthusiasts. As of January 2020, it has more stars on GitHub than any other Python web-development framework,[12] and was voted the most popular web framework in the Python Developers Survey 2018.[13]

Components

The microframework Flask is based on the *Pocoo* projects *Werkzeug* and *Jinja2*.

Werkzeug

Werkzeug is a utility library for the Python programming language, in other words a toolkit for Web Server Gateway Interface (WSGI) applications, and is licensed under a BSD License. Werkzeug can realize software objects for request, response, and utility functions. It can be used to build a custom software framework on top of it and supports Python 2.6, 2.7 and 3.3.[14]

Jinja

Jinja, also by Ronacher, is a template engine for the Python programming language and is licensed under a BSD License. Similar to the Django web framework, it provides that templates are evaluated in a sandbox.

Features

- Development server and debugger
- Integrated support for unit testing
- RESTful request dispatching
- Uses Jinja templating
- Support for secure cookies (client side sessions)
- 100% WSGI 1.0 compliant
- Unicode-based
- Extensive documentation
- Google App Engine compatibility
- Extensions available to enhance features desired

Example

The following code shows a simple web application that displays "Hello World!" when visited:

```python
from flask import Flask
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello World!"

if __name__ == "__main__":
    app.run()
```

See also

- Comparison of web frameworks

References

1. https://github.com/pallets/flask/releases
2. https://pypi.org/project/Flask
3. "Flask Foreword" (https://web.archive.org/web/20171117015927/http://flask.pocoo.org:80/docs/0.10/foreword). Archived from the original (http://flask.pocoo.org:80/docs/0.10/foreword) on 2017-11-17.
4. "Flask Extensions" (https://web.archive.org/web/20180517082208/http://flask.pocoo.org/extensions/). Archived from the original (http://flask.pocoo.org/extensions/) on 2018-05-17.
5. What challenges has Pinterest encountered with Flask? (http://www.quora.com/What-challenges-has-Pinterest-encountered-with-Flask/answer/Steve-Cohen?srid=hXZd&share=1)
6. Rachel Sanders: Developing Flask Extensions - PyCon 2014 (https://www.youtube.com/watch?v=OXN3wuHUBP0#t=46)
7. "Pocoo Team" (https://web.archive.org/web/20180315200205/http://www.pocoo.org/team/). Archived from the original (http://www.pocoo.org/team/) on 2018-03-15.
8. Ronacher, Armin. "Opening the Flask" (https://web.archive.org/web/20161217230320/http://mitsuhiko.pocoo.org/flask-pycon-2011.pdf) (PDF). Archived from the original (http://mitsuhiko.pocoo.org/flask-pycon-2011.pdf) (PDF) on 2016-12-17. Retrieved 2011-09-30.
9. Ronacher, Armin (3 April 2010). "April 1st Post Mortem" (https://web.archive.org/web/20180514202042/http://lucumr.pocoo.org/2010/4/3/april-1st-post-mortem/). *Armin Ronacher's Thoughts and Writings*. Archived from the original (http://lucumr.pocoo.org/2010/4/3/april-1st-post-mortem/) on 2018-05-14. Retrieved 2015-07-25.
10. "Denied: the next generation python micro-web-framework (April Fools page)" (https://web.archive.org/web/20110904053655/http://denied.immersedcode.org/). Archived from the original (http://denied.immersedcode.org/) on 2011-09-04. Retrieved 2011-09-30.
11. "History" (https://web.archive.org/web/20171119213325/http://www.pocoo.org/history/). Pocoo Team. Archived from the original (http://www.pocoo.org:80/history/) on 2017-11-19. Retrieved 2015-03-25.
12. "Python libraries by GitHub stars" (https://github.com/search?l=Python&q=stars%3A%3E100&s=stars&type=Repositories). *Github*. Retrieved 2020-01-27.
13. "Python Developers Survey 2018" (https://www.jetbrains.com/research/python-developers-survey-2018). www.jetbrains.com. 2018-11-01.
14. Ronacher, Armin. "Werkzeug The Python WSGI Utility Library" (https://www.palletsprojects.com/p/werkzeug/). *palletsprojects.com*. Retrieved 27 May 2018.

External links

- Official website (https://flask.palletsprojects.com/) ✏
- Flask for beginners (https://overiq.com/flask/0.12/intro-to-flask/)

Retrieved from "https://en.wikipedia.org/w/index.php?title=Flask_(web_framework)&oldid=940436796"