

An introduction to Flask: Create a web app and host it in the cloud



Meet-up October 23th

By: Claudia Sulsters
Data scientist @ Data Science Lab.

Agenda

1. Introduction to:
 - Flask
 - HTTP requests
 - PythonAnywhere
2. Demo: Pyladies app
3. Workshop: **Create a web app and host it in the cloud**
 - Workshop Part I: Create Flask app and MySQL database
 - Workshop Part II: Code your Flask app

Goals:

- Learn Flask basics
- Build your own Flask app



What is Flask?



- Flask is a micro web framework written in Python
- Micro means simple but extensible
- Add extensions e.g., pytest or Flask login
- Components:
 1. Werkzeug
 - toolkit for Web Server Gateway Interface (WSGI) applications
 - to send requests between the server and the web framework
 2. Jinja
 - templating language for Python developers
 - used to create e.g., HTML that is returned to the user via an HTTP request



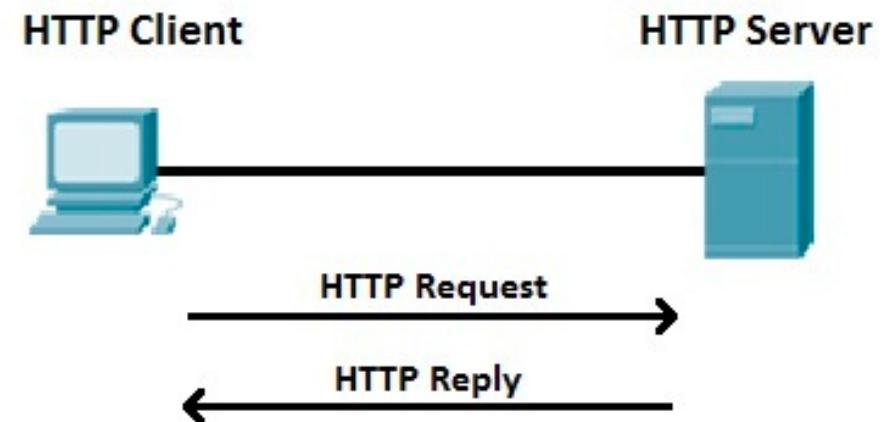
Our first flask app!

```
1 # A very simple Flask Hello World app for you to get started with...
2
3 from flask import Flask
4
5 app = Flask(__name__)
6
7
8 @app.route('/')
9 def hello_world():
10     return 'Hello from Flask!'
```



Hypertext Transfer Protocol (HTTP)

- Designed to enable communications between client and server
- Request-response protocol
- Example:
 - Client (browser) submits an HTTP request to the server
 - Server returns a response to the client
 - Response contains requested content
- HTTP methods
 - GET → request data from server
 - POST → send data to server



What is PythonAnywhere?

- PythonAnywhere is an online IDE and web hosting service for Python
- Host, run, and code Python in the cloud
- Simple way to deploy your Flask apps
- Or other Python web frameworks
 - Django
 - Web2py
 - Bottle
 -
- SQL database



Dashboard

Welcome, [ClaudiaSulsters](#)**CPU Usage:** 0% used – 0.00s of 100s. Resets in 18 minutes [More Info](#)[Upgrade Account](#)**File storage:** 1% full – 3.0 MB of your 512.0 MB quota

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[+](#) [5](#) [-](#)[!\[\]\(3cb60d42b10e53f9522bb0b392c1c4cd_img.jpg\) MySQL: ClaudiaSulsters\\$pyladies](#)[!\[\]\(d0262bbe9d2356661a2e89321dfcc781_img.jpg\) Bash console 13195700](#)

New console:

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pyladies_app.py](/home/ClaudiaSulsters/mysite/pyladies_app.py)[/home/ClaudiaSulsters/mysite/
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All Web apps

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Overview of all
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Dashboard

CPU Usage: 0% used – 0.00s of 100s. Resets in 18 minutes [More Info](#)

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Bash, MySQL,
Python3.6, ...

Recent
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 MySQL: ClaudiaSulsters\$pyladies

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/home/ClaudiaSulsters/mysite/
pyladies_app.py

/home/ClaudiaSulsters/mysite/
flask_app.py

/home/ClaudiaSulsters/mysite/templa...
new_main_page.html

/home/ClaudiaSulsters/mysite/templa...
main_page.html

/home/ClaudiaSulsters/mysite/templa...
new_main_page

+ Open another file

Browse files

All your files
(Python,
HTML, ...)

Recent
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Overview of all
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All
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See a simple Flask app

Go to <http://claudiasulsters.pythonanywhere.com/> and tell use what you want to learn!



Workshop Part I

Create Flask app and MySQL database



Workshop

1. Go to <https://github.com/pyladiesams/flask-beginner-okt2019>
2. Open the ‘Workshop Part I + II’ file in the workshop folder.
3. Go to <https://www.pythonanywhere.com/login/>, log in and go to your dashboard.
4. Let’s get started!
5. Need help? Ask your fellow Pyladies or the workshop leader!
6. Still need help? Look at the solutions folder.



Break



pyladies
amsterdam

Workshop Part II

Code your Flask app



The end

Thank you for joining this meet-up!

