

Open-Source Technology Use Report

Proof of knowing your stuff in CSE312

[Flask - Werkzeug]

General Information & Licensing

Code Repository	https://github.com/pallets/werkzeug
License Type	BSD 3 Clause
License Description	<ul style="list-style-type: none">• With copyright included: Copyright 2007 Pallets• Commercial Use allowed• Modification, Distribution and Private use allowed
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Who worked with this?	James Aquilina

[.run(*host, *port, *debug) method]

Purpose

Replace this text with some that answers the following questions for the above tech:

- This tech allows us to run our server on localhost and connects us to a browser to simulate an app working over the internet. It is the entry point into our app and establishes the HTTP protocol connection.
- This function is used in our server.py file, line 19.

- This technology opens a port on our local machine (5000) and when entering the localhost hostname in the web browser establishes a connection to our app. This is a development server. From this connection, we can receive different requests based on the type of request that was sent. We can also send information and data back to the client (browser) through this connection.
- After importing the Flask library and creating our app in `__init__.py` we can call `app.run()`
- **First Link:** `run` is a method from the base Flask class. This is where Flask objects our created which is the “app” and acts as the central core of the entire app. It takes a few parameters, and in our case we passed it: `host= “0.0.0.0”, port= 5000, debug=True`
<https://github.com/pallets/flask/blob/a03719b01076a5bfdc2c8f4024eda7b874614bc1/src/flask/app.py#L805>
- **Second Link:** Near the bottom of the `run` function is an import statement:
`from werkzeug.serving import run_simple`
The `run` method calls the `run_simple()` function and `run()` passes the same parameters to `run_simple()`
<https://github.com/pallets/flask/blob/a03719b01076a5bfdc2c8f4024eda7b874614bc1/src/flask/app.py#L920>
- **Third Link:** The `run_simple` function comes from the `werkzeug` library and specifically it is from the `ForkingWSGIServer` class.
<https://github.com/pallets/werkzeug/blob/c7ae2fea4fb229ffd71187c2b665874c91b96277/src/werkzeug/serving.py#L917>
- **Fourth Link:** This class is derived from the `BaseWSGIServer` which is a single process threaded server class. The `BaseWEGIServer` is derived from the `HTTPServer`
<https://github.com/pallets/werkzeug/blob/c7ae2fea4fb229ffd71187c2b665874c91b96277/src/werkzeug/serving.py#L635>
- **Fifth Link:** `HTTPServer` is imported from the `HTTP` library.
<https://github.com/python/cpython/blob/886b22c4c3c5324bcebb79402c92d18ebc4224b6/Lib/http/server.py#L130>
The `HTTP` server and library are where all of the handling of the requests happens



