
httpsrv Documentation

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Httpsrv is a simple HTTP server for API mocking during automated testing

exception `httpsrv.PendingRequestsLeftException`

Raises when server has pending reques expectations by calling the `Server.assert_no_pending()` method

class `httpsrv.Rule` (*method, path, headers, text, json*)

Expectation rule — defines expected request parameters and response values

Parameters

- **method** (*str*) – expected request method: 'GET', 'POST', etc. Can take any custom string
- **path** (*str*) – expected path including query parameters, e.g. '/users?name=John%20Doe' if ommited any path will do
- **headers** (*dict*) – dictionary of expected request headers
- **text** (*str*) – expected request body text
- **json** (*dict*) – request json to expect. If ommited any json will match, if present text param will be ignored

json (*json_doc, status=200, headers=None*)

Respond with given status and JSON content. Will also set 'Content-Type' to 'applicaiion/json' if header is not specified explicitly

Parameters

- **json_doc** (*dict*) – dictionary to respond with converting to JSON string
- **status** (*int*) – status code to return
- **headers** (*dict*) – dictionary of headers to add to response

matches (*method, path, headers, bytes=None*)

Checks if rule matches given request parameters

Parameters

- **method** (*str*) – HTTP method, e.g. 'GET', 'POST', etc. Can take any custom string
- **path** (*str*) – request path including query parameters, e.g. '/users?name=John%20Doe'
- **bytes** (*bytes*) – request body

Returns `True` if this rule matches given params

Return type `bool`

method

Method name this rule will respond to

Returns epected method name

Return type `str`

status (*status, headers=None*)

Respond with given status and no content

Parameters

- **status** (*int*) – status code to return
- **headers** (*dict*) – dictionary of headers to add to response

Returns itself

Return type *Rule*

text (*text*, *status*=200, *headers*=None)

Respond with given status and text content

Parameters

- **text** (*str*) – text to return
- **status** (*int*) – status code to return
- **headers** (*dict*) – dictionary of headers to add to response

Returns itself

Return type *Rule*

class `httpsrv.Server` (*port*)

Tunable HTTP server running in a parallel thread.

Please note that *this server is not thread-safe* which should not cause any troubles in common use-cases due to python single-threaded nature.

Parameters **port** (*int*) – port this server will listen to after `Server.start()` is called

always (*method*, *path*=None, *headers*=None, *text*=None, *json*=None)

Sends response every time matching parameters are found until `Server.reset()` is called

Parameters

- **method** (*str*) – request method: 'GET', 'POST', etc. can be some custom string
- **path** (*str*) – request path including query parameters
- **headers** (*dict*) – dictionary of headers to expect. If omitted any headers will do
- **text** (*str*) – request text to expect. If omitted any text will match
- **json** (*dict*) – request json to expect. If omitted any json will match, if present text param will be ignored

Return type *Rule*

Returns newly created expectation rule

assert_no_pending (*target_rule*=None)

Raises a `PendingRequestsLeftException` error if server has target rule non-resolved.

When *target_rule* argument is omitted raises if server has any pending expectations.

Useful in `tearDown()` test method to verify that test had correct expectations

Parameters **target_rule** (*Rule*) – will raise if this rule is left pending

Raises `PendingRequestsLeftException`

on (*method*, *path*=None, *headers*=None, *text*=None, *json*=None)

Sends response to matching parameters one time and removes it from list of expectations

Parameters

- **method** (*str*) – request method: 'GET', 'POST', etc. can be some custom string
- **path** (*str*) – request path including query parameters
- **headers** (*dict*) – dictionary of headers to expect. If omitted any headers will do

- **text** (*str*) – request text to expect. If omitted any text will match
- **json** (*dict*) – request json to expect. If omitted any json will match, if present text param will be ignored

Return type *Rule*

Returns newly created expectation rule

reset ()

Clears the server expectations. Useful for resetting the server to its default state in `tearDown()` test method instead of time-consuming restart procedure

start ()

Starts a server on the port provided in the *Server* constructor in a separate thread

Return type *Server*

Returns server instance for chaining

stop ()

Shuts the server down and waits for server thread to join

Httpsrv

Simple http server for API mocking during automated testing Plays nicely with [httpsrvvcr](#) library for automated request recording

1.1 Example usage

A typical usage pattern would probably look like the one below.

Using `requests` library:

```
import unittest
import requests
from httpsrv import Server

server = Server(8080).start()

class MyTestCase(unittest.TestCase):
    def setUp(self):
        server.reset()

    def test_should_get_hello(self):
        # this means that server will respond once upon GET request
        # further GET requests on this path will get 500
        server.on('GET', '/').text('hello')
        res = requests.get('http://localhost:8080')
        assert res.text == 'hello'

    def test_should_always_respond_to_options(self):
        # this means that any OPTIONS request will get status 200
        # such behavior is particularly useful when mocking preflight queries
        server.always('OPTIONS').status(200)
        res = requests.get('http://localhost:8080')
        assert res.status_code == 200
```

1.2 Installation

```
pip install httpsrv
```

1.3 Documentation

<http://httpsrv.readthedocs.org>

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