Python. Requests module

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План лекції

Requests модуль

Практика

◎ Requests модуль

Make a Request

Making a request with Requests is very simple.

Begin by importing the Requests module:

```
>>> import requests
```

Now, let's try to get a webpage. For this example, let's get GitHub's public timeline:

```
>>> r = requests.get('https://api.github.com/events')
```

Now, we have a **Response** object called r. We can get all the information we need from this object.

Requests' simple API means that all forms of HTTP request are as obvious. For example, this is how you make an HTTP POST request:

```
>>> r = requests.post('https://httpbin.org/post', data={'key': 'value'})
```

Nice, right? What about the other HTTP request types: PUT, DELETE, HEAD and OPTIONS? These are all just as simple:

```
>>> r = requests.put('https://httpbin.org/put', data={'key': 'value'})
>>> r = requests.delete('https://httpbin.org/delete')
>>> r = requests.head('https://httpbin.org/get')
>>> r = requests.options('https://httpbin.org/get')
```

◎ Requests модуль

```
→ Become QA Auto git:(master) pip3 install requests --user
Requirement already satisfied: requests in /usr/lib/python3/dist-packages (2.22.0)
→ Become QA Auto git:(master)
```

◎ Requests модуль

```
Collecting requests
  Downloading requests-2.28.1-py3-none-any.whl (62 kB)
        |████████████████████████████████| 62 kB 2.0 MB/s
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.8/site-packages (from requests)
 (2.10)
Collecting charset-normalizer<3,>=2
  Downloading charset_normalizer-2.1.0-py3-none-any.whl (39 kB)
Collecting urllib3<1.27,>=1.21.1
  Downloading urllib3-1.26.11-py2.py3-none-any.whl (139 kB)
        |████████████████████████████████| 139 kB 3.8 MB/s
Collecting certifi>=2017.4.17
  Downloading certifi-2022.6.15-py3-none-any.whl (160 kB)
        |████████████████████████████████| 160 kB 4.5 MB/s
Installing collected packages: charset-normalizer, urllib3, certifi, requests
ERROR: Could not install packages due to an EnvironmentError: [Errno 13] Permission denied: '/home/pg
admin'
Check the permissions.
```

◎ Requests модуль

```
→ Become QA Auto git:(master) sudo pip3 install requests --user
Requirement already satisfied: requests in /usr/lib/python3/dist-packages (2.22.0)
→ Become QA Auto git:(master)
```

Практика

EXPLORER

pytest.ini ◆ test_api.py ✕

> OPEN EDITORS

tests > api > ◆ test_api.py

∨ BECOME QA AUTO

> .pytest_cache

> config

> modules

∨ tests   ●

> __pycache__   ●

∨ api   ●

> __pycache__   ●

◆ test_api.py   M

◆ test_fixtures.py   U

∨ ui   ●

> __pycache__   ●

◆ test_ui.py

◆ conftest.py   U

≡ pytest.ini   U

```python
     You, seconds ago | 1 author (You)
 1   import pytest
 2
 3
 4   @pytest.mark.change
 5   def test_remove_name(user):
 6       user.name = ''
 7       assert user.name == ''
 8
 9
10   @pytest.mark.check
11   def test_name(user):
12       assert user.name == 'Sergii'
13
14
15   @pytest.mark.check
16   def test_second_name(user):
17       assert user.second_name == 'Butenko'
18
```

TERMINAL   PROBLEMS   DEBUG CONSOLE   OUTPUT
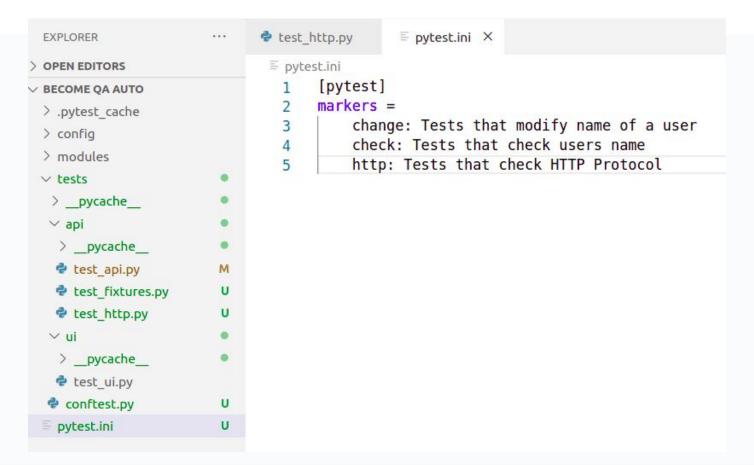
> OUTLINE

> TIMELINE

> NPM SCRIPTS

Практика

◎ Практика

EXPLORER · · ·

> OPEN EDITORS
∨ BECOME QA AUTO
  > .pytest_cache
  > config
  > modules
  ∨ tests   ●
    > __pycache__   ●
    ∨ api   ●
      > __pycache__   ●
      🐍 test_api.py   M
      🐍 test_fixtures.py   U
      🐍 test_http.py   U

🐍 test_http.py ✕

tests > api > 🐍 test_http.py > ...

```python
import pytest
import requests


@pytest.mark.http
def test_first_request():
    r = requests.get('https://api.github.com/zen')
    print(r.text)
```

Практика

◎ Практика

Практика


```
→ Become QA Auto git:(master) ✗ pytest -m http -s
=========================== test session starts ============================
platform linux -- Python 3.8.10, pytest-7.1.2, pluggy-0.13.1
rootdir: /home/sbutenko/repos/LnD/Become QA Auto, configfile: pytest.ini
plugins: Faker-4.1.1, rerunfailures-9.1.1, forked-1.3.0, anyio-3.4.0, xdist-1.3
2.0, allure-pytest-2.8.16, html-2.1.1, metadata-1.10.0, ordering-0.6, instafail
-0.4.2
collected 6 items / 5 deselected / 1 selected

tests/api/test_http.py Speak like a human.
.

======================= 1 passed, 5 deselected in 0.29s ========================
```

◎ Практика

EXPLORER ...

test_http.py ✕   ≡ pytest.ini

> OPEN EDITORS

∨ BECOME QA AUTO

tests > api > 🐍 test_http.py > ...

> .pytest_cache

> config

> modules

∨ tests ●

> __pycache__ ●

∨ api ●

> __pycache__ ●

🐍 test_api.py M

🐍 test_fixtures.py U

🐍 test_http.py 1, U

∨ ui ●

> __pycache__ ●

🐍 test_ui.py

🐍 conftest.py U

≡ pytest.ini U

```python
import pytest
import requests


@pytest.mark.http
def test_first_request():
    r = requests.get('https://api.github.com/zen')
    print(f"Response is {r.text}")

@pytest.mark.http
def test_second_request():
    r = requests.get('https://api.github.com/users/defunkt')
    print(f"Response is {r.text}")
```

Підсумки

- **Requests модуль -** це модуль, який використовується для того, щоб відправити запити із коду
- Створили 2 теста, що відправляють запити на сервер ГітХаба