



Become QA Auto



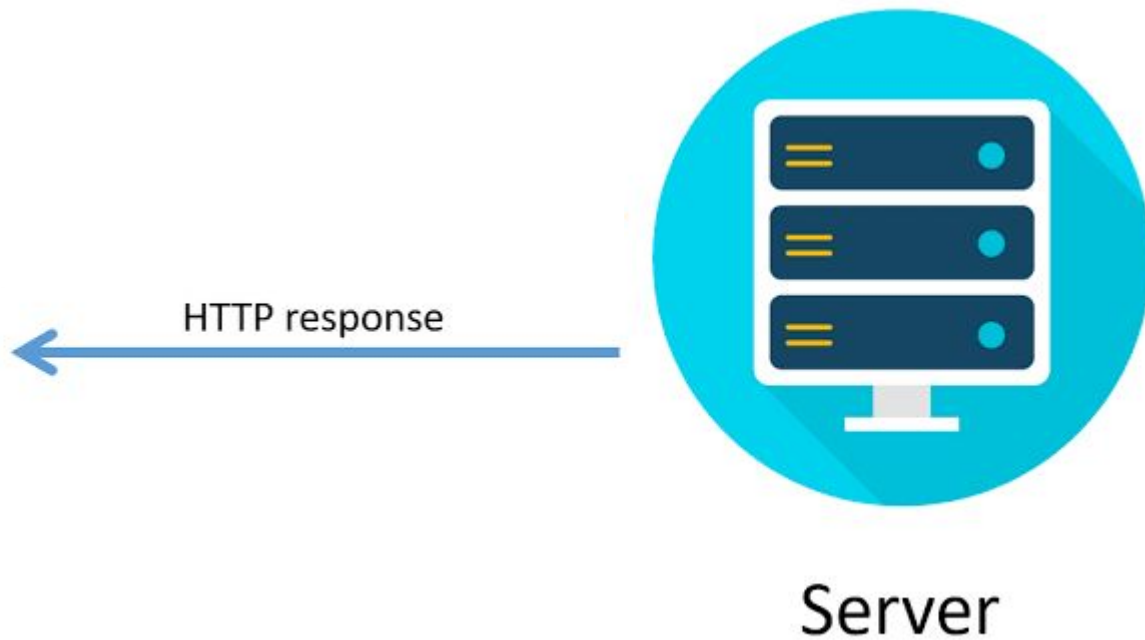
HTTP. Response

Бутенко Сергій

⦿ HTTP Response



HTTP Response - це повідомлення, що сервер надсилає у відповідь клієнту на HTTP Request



Структура повідомлень



Requests

```
POST / HTTP/1.1
Host: localhost:8000
User-Agent: Mozilla/5.0 (Macintosh;... )... Firefox/51.0
Accept: text/html,application/xhtml+xml,..., */*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Upgrade-Insecure-Requests: 1
Content-Type: multipart/form-data; boundary=-12656974
Content-Length: 345
```

```
-12656974
(more data)
```

Responses

```
HTTP/1.1 403 Forbidden
Server: Apache
Content-Type: text/html; charset=iso-8859-1
Date: Wed, 10 Aug 2016 09:23:25 GMT
Keep-Alive: timeout=5, max=1000
Connection: Keep-Alive
Age: 3464
Date: Wed, 10 Aug 2016 09:46:25 GMT
X-Cache-Info: caching
Content-Length: 220
```

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML
2.0//EN">
(more data)
```

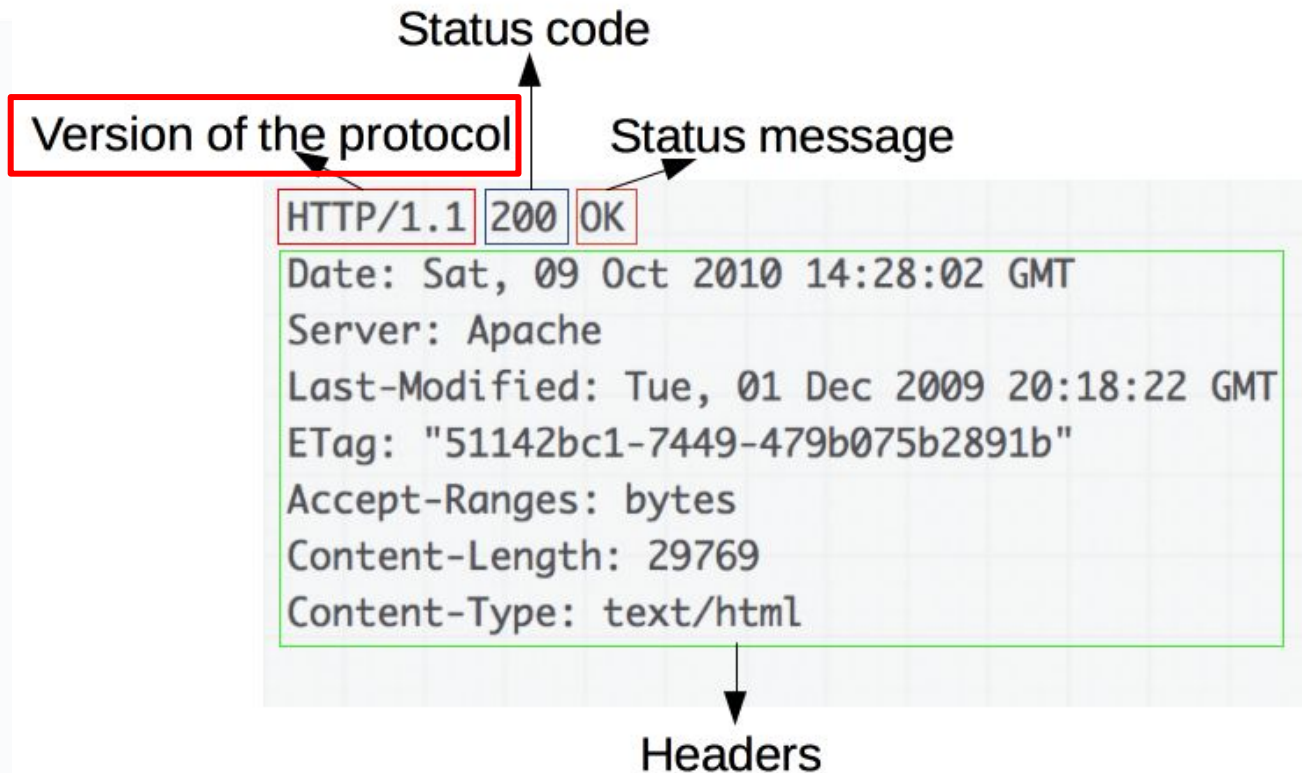
start-
line

HTTP headers

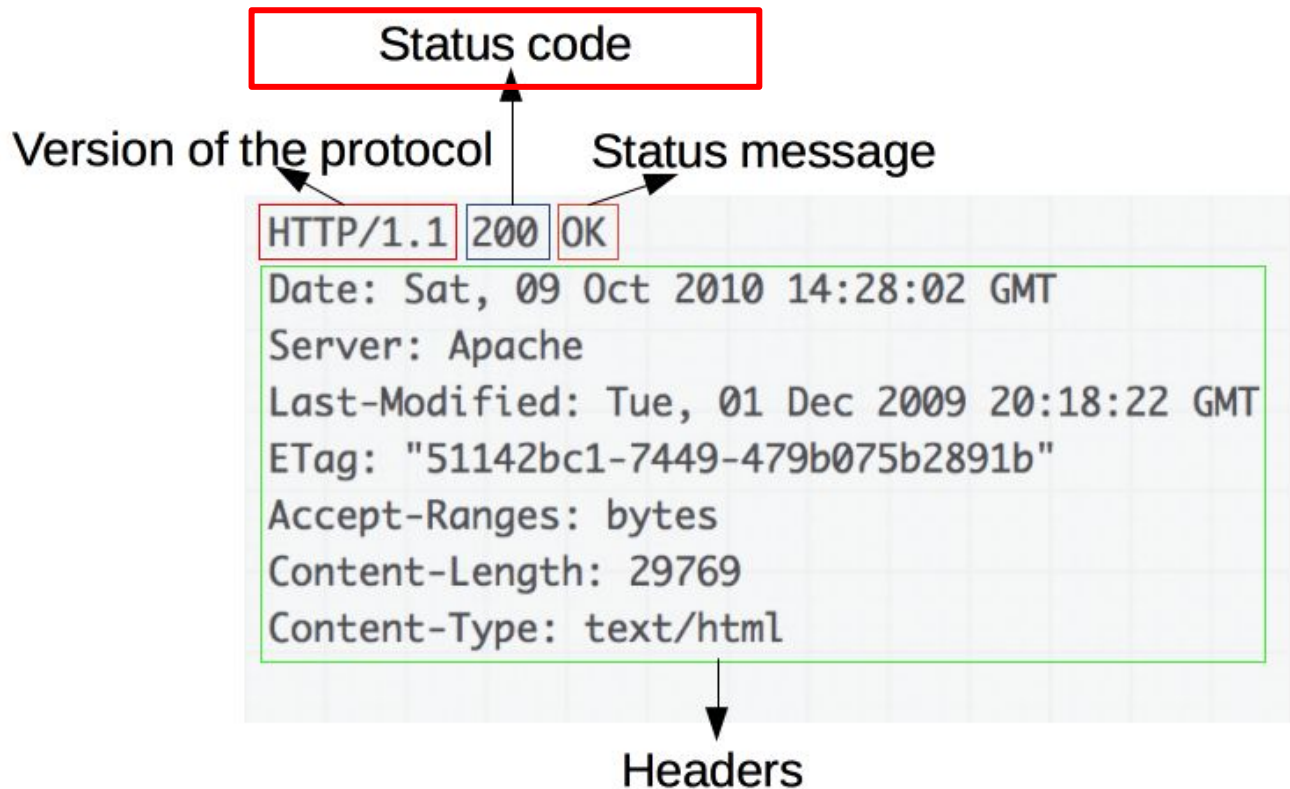
empty
line

body

⦿ HTTP Response - стартовый рядок

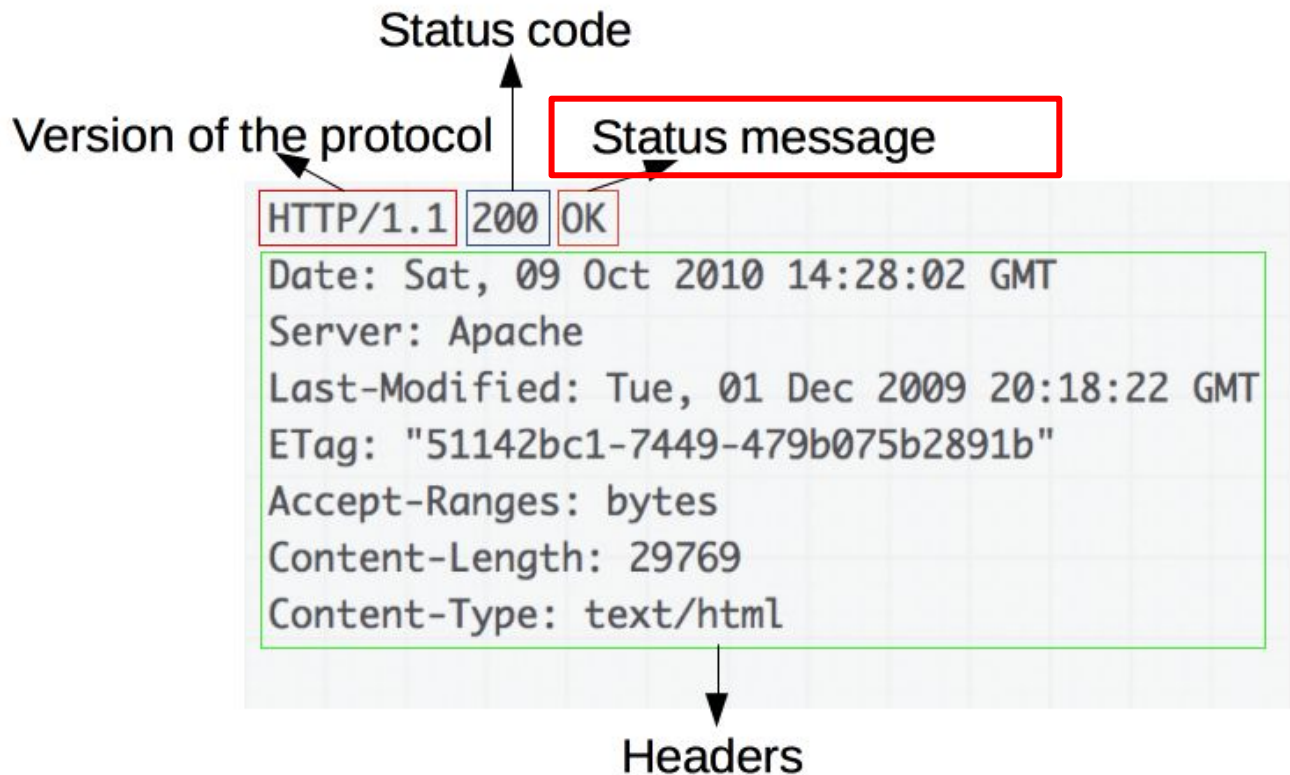


◎ HTTP Response - стартовий рядок



Статус код є
індикатором статусу
виконання риквеста

⦿ HTTP Response - стартовий рядок



Статус меседж є
текстовою варіацією
статус кода

⦿ HTTP Response - статус код



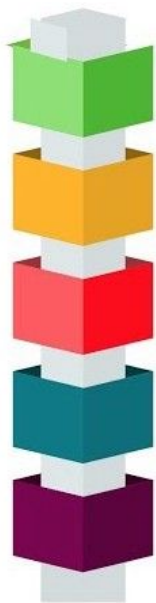
HTTP Status Codes



⦿ HTTP Response - статус код



HTTP Status Codes



1XX
INFORMATIONAL

2XX
SUCCESS

3XX
REDIRECTION

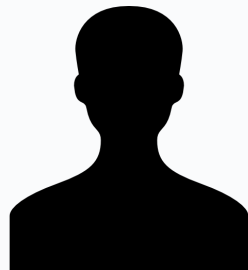
4XX
CLIENT ERROR

5XX
SERVER ERROR



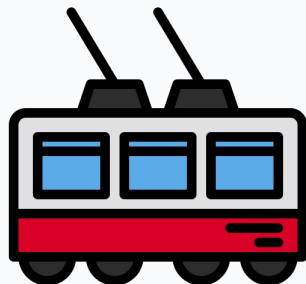
Інформаційні

⦿ Інформаційні

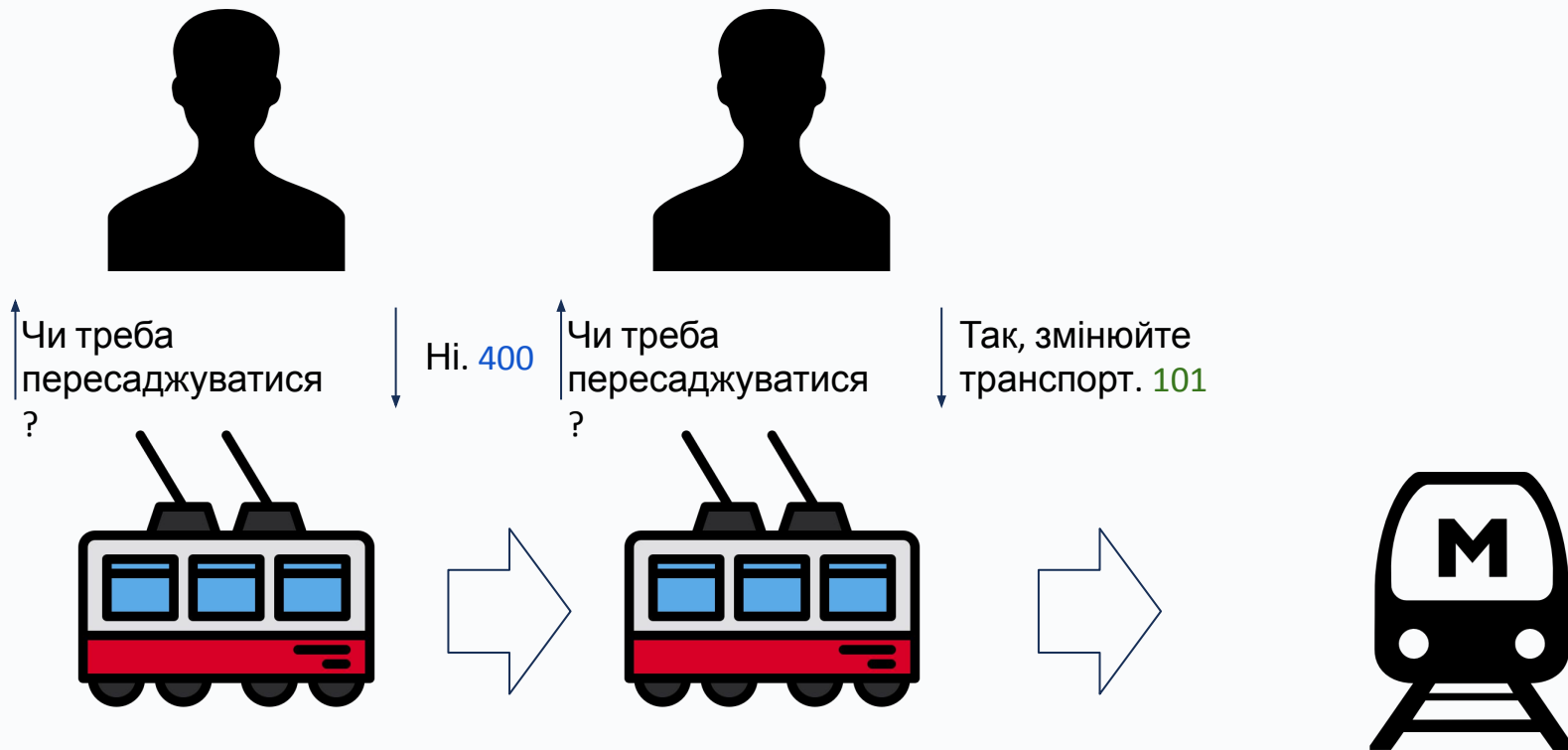


Чи треба
пересаджуватися
?

Ні. 400



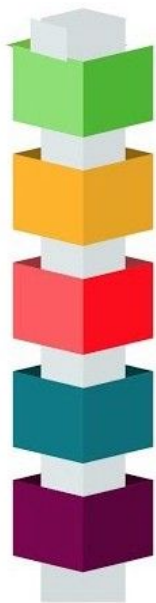
Інформаційні



⦿ HTTP Response - статус код



HTTP Status Codes



1XX
INFORMATIONAL

2XX
SUCCESS

3XX
REDIRECTION

4XX
CLIENT ERROR

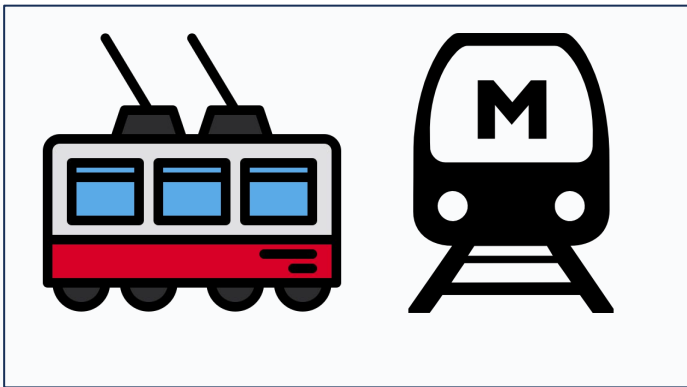
5XX
SERVER ERROR



Успішні



Успішні



↑ Які види транспорту тут ходять?

↓ Трамвай і Метро.
200





Успішні

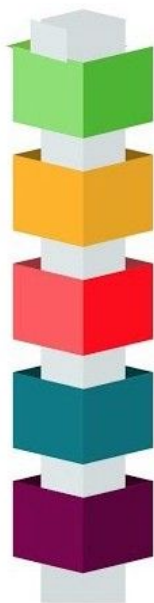


Статус код	Статус повідомлення
200	OK
201	Created
202	Accepted
204	No Content

⦿ HTTP Response - статус код



HTTP Status Codes



1XX
INFORMATIONAL

2XX
SUCCESS

3XX
REDIRECTION

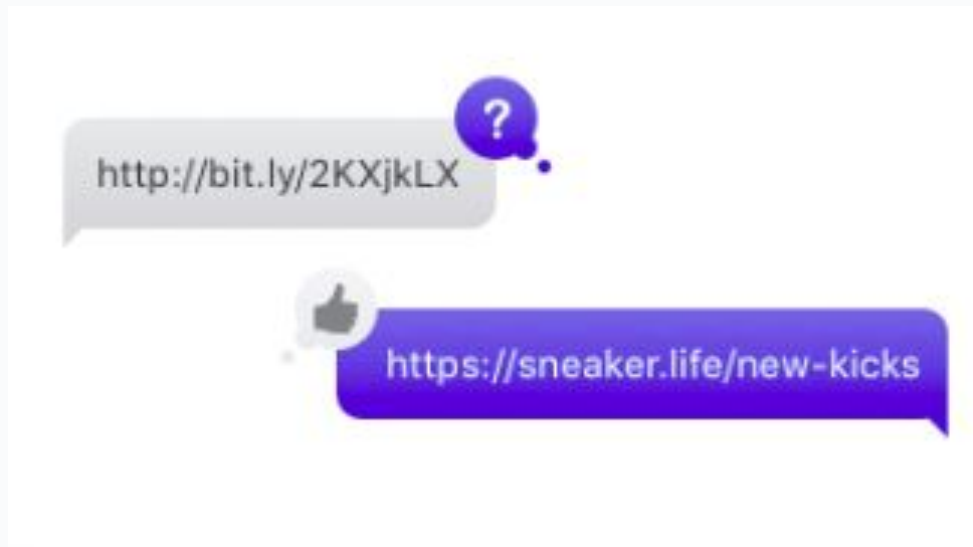
4XX
CLIENT ERROR

5XX
SERVER ERROR



Перенаправления

◎ Перенаправления





Перенаправления



⦿ HTTP Response - статус код



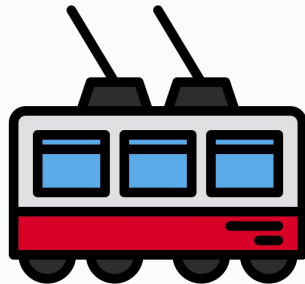
HTTP Status Codes



Помилки клієнта



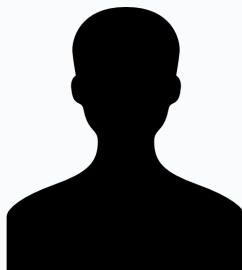
Помилки клієнта



Перевірка квитка



Дата не дійсна
400





Помилки клієнта

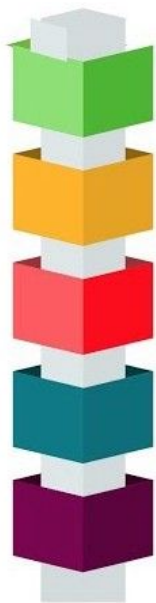


Статус код	Статус повідомлення
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found

⦿ HTTP Response - статус код



HTTP Status Codes



1XX
INFORMATIONAL

2XX
SUCCESS

3XX
REDIRECTION

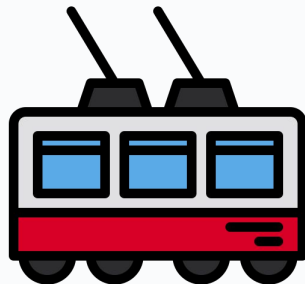
4XX
CLIENT ERROR

5XX
SERVER ERROR



Помилки сервера

⦿ Помилки сервера



Перевірка квитка



Не працює
автомати 500





Практика



EXPLORER

OPEN EDITORS

BECOME QA AUTO

- > .pytest_cache
- > config
- > modules
- tests
 - > __pycache__
 - api
 - > __pycache__
 - test_api.py
 - test_fixtures.py
 - test_http.py
 - ui
 - > __pycache__
 - test_ui.py
 - conftest.py
 - pytest.ini

test_http.py

pytest.ini

tests > api > test_http.py > ...

```
1 import pytest
2 import requests
3
4
5 @pytest.mark.http
6 def test_first_request():
7     r = requests.get('https://api.github.com/zen')
8     print(f"Response is {r.text}")
9
10 @pytest.mark.http
11 def test_second_request():
12     r = requests.get('https://api.github.com/users/defunkt')
13     print(f"Response is {r.text}")
14
```



Практика



EXPLORER

...

> OPEN EDITORS

✓ BECOME QA AUTO

> .pytest_cache

> config

> modules

✓ tests

> __pycache__

✓ api

> __pycache__

test_api.py

test_fixtures.py

test_http.py

✓ ui

> __pycache__

test_http.py ×

pytest.ini

tests > api > test_http.py > test_second_request

```
1 import pytest
2 import requests
3
4
5 @pytest.mark.http
6 def test_first_request():
7     r = requests.get('https://api.github.com/zen')
8     print(f"Response is {r.text}")
9
10 @pytest.mark.http
11 def test_second_request():
12     r = requests.get('https://api.github.com/users/defunkt')
13     print(f"Response Body is {r.json()}")
14     print(f"Response Status code is {r.status_code}")
15     print(f"Response Headers are {r.headers}")
```




Практика



```
→ Become QA Auto git:(master) X 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-1.32.0, allure-pytest-2.8.16, html-2.1.1, metadata-1.10.0, ordering-0.6, instafail-0.4.2
collected 7 items / 5 deselected / 2 selected
```

```
tests/api/test_http.py Response is Design for failure.
```

```
.Response Body is {'login': 'defunkt', 'id': 2, 'node_id': 'MDQ6VXNlcjI=', 'avatar_url': 'https://avatars.githubusercontent.com/u/2?v=4', 'gravatar_id': '', 'url': 'https://api.github.com/users/defunkt', 'html_url': 'https://github.com/defunkt', 'followers_url': 'https://api.github.com/users/defunkt/followers', 'following_url': 'https://api.github.com/users/defunkt/following{/other_user}', 'gists_url': 'https://api.github.com/users/defunkt/gists{/gist_id}', 'starred_url': 'https://api.github.com/users/defunkt/starred{/owner}/{repo}', 'subscriptions_url': 'https://api.github.com/users/defunkt/subscriptions', 'organizations_url': 'https://api.github.com/users/defunkt/orgs', 'repos_url': 'https://api.github.com/users/defunkt/repos', 'events_url': 'https://api.github.com/users/defunkt/events{/privacy}', 'received_events_url': 'https://api.github.com/users/defunkt/received_events', 'type': 'User', 'site_admin': False, 'name': 'Chris Wanstrath', 'company': None, 'blog': 'http://chriswanstrath.com/', 'location': None, 'email': None, 'hireable': None, 'bio': '🍌', 'twitter_username': None, 'public_repos': 107, 'public_gists': 273, 'followers': 21451, 'following': 210, 'created_at': '2007-10-20T05:24:19Z', 'updated_at': '2022-06-01T23:46:26Z'}
```

```
Response Status code is 200
```

```
Response Headers are {'Server': 'GitHub.com', 'Date': 'Mon, 20 Jun 2022 18:38:34 GMT', 'Content-Type': 'application/json; charset=utf-8', 'Cache-Control': 'public, max-age=60, s-maxage=60', 'Vary': 'Accept, Accept-Encoding, Accept, X-Requested-With', 'ETag': 'W/"a139706aa40019d7e06c9bd50ba4626e24c8d51cd1d1c01854f4c6a72ad3f612"', 'Last-Modified': 'Wed, 01 Jun 2022 23:46:26 GMT', 'X-GitHub-Media-Type': 'github.v3; format=json', 'Access-Control-Expose-Headers': 'ETag, Link, Location, Retry-After, X-GitHub-OTP, X-RateLimit-Limit, X-RateLimit-Remaining, X-RateLimit-Used, X-RateLimit-Resource, X-RateLimit-Reset, X-OAuth-Scopes, X-Accepted-OAuth-Scopes, X-Poll-Interval, X-GitHub-Media-Type, X-GitHub-SSO, X-GitHub-Request-Id, Deprecation, Sunset', 'Access-Control-Allow-Origin': '*', 'Strict-Transport-Security': 'max-age=31536000; includeSubdomains; preload', 'X-Frame-Options': 'deny', 'X-Content-Type-Options': 'nosniff', 'X-XSS-Protection': '0', 'Referrer-Policy': 'origin-when-cross-origin, strict-origin-when-cross-origin', 'Content-Security-Policy': 'default-src \'none\'', 'Content-Encoding': 'gzip', 'X-RateLimit-Limit': '60', 'X-RateLimit-Remaining': '42', 'X-RateLimit-Reset': '1655752270', 'X-RateLimit-Resource': 'core', 'X-RateLimit-Used': '18', 'Accept-Ranges': 'bytes', 'Content-Length': '484', 'X-GitHub-Request-Id': 'CE28:20DD:150EAC2:16E5643:62B0BEAA'}
```




Практика



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→ Become QA Auto git:(master) X pytest -m http -s
```

```
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platform linux -- Python 3.8.10, pytest-7.1.2, pluggy-0.13.1
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Практика



```
→ Become QA Auto git:(master) X pytest -m http -s
```

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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-1.32.0, allure-pytest-2.8.16, html-2.1.1, metadata-1.10.0, ordering-0.6, instafail-0.4.2
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Практика



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plugins: Faker-4.1.1, rerunfailures-9.1.1, forked-1.3.0, anyio-3.4.0, xdist-1.32.0, allure-pytest-2.8.16, html-2.1.1, metadata-1.10.0, ordering-0.6, instafail-0.4.2
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.Response Body is {'login': 'defunkt', 'id': 2, 'node_id': 'MDQ6VXNlcjI=', 'avatar_url': 'https://avatars.githubusercontent.com/u/2?v=4', 'gravatar_id': '', 'url': 'https://api.github.com/users/defunkt', 'html_url': 'https://github.com/defunkt', 'followers_url': 'https://api.github.com/users/defunkt/followers', 'following_url': 'https://api.github.com/users/defunkt/following{/other_user}', 'gists_url': 'https://api.github.com/users/defunkt/gists{/gist_id}', 'starred_url': 'https://api.github.com/users/defunkt/starred{/owner}/{repo}', 'subscriptions_url': 'https://api.github.com/users/defunkt/subscriptions', 'organizations_url': 'https://api.github.com/users/defunkt/orgs', 'repos_url': 'https://api.github.com/users/defunkt/repos', 'events_url': 'https://api.github.com/users/defunkt/events{/privacy}', 'received_events_url': 'https://api.github.com/users/defunkt/received_events', 'type': 'User', 'site_admin': False, 'name': 'Chris Wanstrath', 'company': None, 'blog': 'http://chriswanstrath.com/', 'location': None, 'email': None, 'hireable': None, 'bio': '🍌', 'twitter_username': None, 'public_repos': 107, 'public_gists': 273, 'followers': 21451, 'following': 210, 'created_at': '2007-10-20T05:24:19Z', 'updated_at': '2022-06-01T23:46:26Z'}
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```
Response Status code is 200
```

```
Response Headers are {'Server': 'GitHub.com', 'Date': 'Mon, 20 Jun 2022 18:38:34 GMT', 'Content-Type': 'application/json; charset=utf-8', 'Cache-Control': 'public, max-age=60, s-maxage=60', 'Vary': 'Accept, Accept-Encoding, Accept, X-Requested-With', 'ETag': 'W/"a139706aa40019d7e06c9bd50ba4626e24c8d51cd1d1c01854f4c6a72ad3f612"', 'Last-Modified': 'Wed, 01 Jun 2022 23:46:26 GMT', 'X-GitHub-Media-Type': 'github.v3; format=json', 'Access-Control-Expose-Headers': 'ETag, Link, Location, Retry-After, X-GitHub-OTP, X-RateLimit-Limit, X-RateLimit-Remaining, X-RateLimit-Used, X-RateLimit-Resource, X-RateLimit-Reset, X-OAuth-Scopes, X-Accepted-OAuth-Scopes, X-Poll-Interval, X-GitHub-Media-Type, X-GitHub-SSO, X-GitHub-Request-Id, Deprecation, Sunset', 'Access-Control-Allow-Origin': '*', 'Strict-Transport-Security': 'max-age=31536000; includeSubdomains; preload', 'X-Frame-Options': 'deny', 'X-Content-Type-Options': 'nosniff', 'X-XSS-Protection': '0', 'Referrer-Policy': 'origin-when-cross-origin, strict-origin-when-cross-origin', 'Content-Security-Policy': 'default-src none', 'Content-Encoding': 'gzip', 'X-RateLimit-Limit': '60', 'X-RateLimit-Remaining': '42', 'X-RateLimit-Reset': '1655752270', 'X-RateLimit-Resource': 'core', 'X-RateLimit-Used': '18', 'Accept-Ranges': 'bytes', 'Content-Length': '484', 'X-GitHub-Request-Id': 'CE28:20DD:150EAC2:16E5643:62B0BEAA'}
```



Підсумки



- ✓ **Стартовий рядок** складається з версії протоколу, статус коду та статус меседжа.
- ✓ **Статус код** - це індикатор статусу виконання рiквеста
- ✓ **Статус меседж** є текстовою варіацією статус кода



Підсумки



Існують 5 груп статус кодів:

- Інформаційні. Діапазон 100-199
- Успішні. Діапазон 200-299
- Перенаправлення. Діапазон 300-399
- Помилки клієнта. Діапазон 400-499
- Помилки сервера. Діапазон 500-599



Навчилися отримувати доступ до головних структур
ріспонса із коду