

First Homework

In the file `doodle.py` has been implemented all the methods requested by the assignment. Follows:

1. the screenshot of the successful execution of `test_doodle.py`
2. the screenshot obtained by testing the cases contained in `test_doodle.py` through Postman
3. the screenshot obtained by testing the cases in which http methods are invoked over URI where they are not defined.

It is possible to find the GitHub repository of the project at the link: <http://github.com/edoBaldini/HW1.git>

1 Screenshots

```
host-131-114-215-123:doodle edoardobaldini$ pytest
===== test session starts =====
platform darwin -- Python 3.7.0, pytest-3.8.2, py-1.6.0, pluggy-0.7.1
rootdir: /Users/edoardobaldini/Workspace/HW1/doodle, inifile:
collected 3 items

myservice/tests/test_doodle.py ... [100%]

===== warnings summary =====
/usr/local/lib/python3.7/site-packages/werkzeug/datastructures.py:16: DeprecationWarning: Using or importing the ABCs from 'collections' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import Container, Iterable, MutableSet
/usr/local/lib/python3.7/site-packages/werkzeug/datastructures.py:16: DeprecationWarning: Using or importing the ABCs from 'collections' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import Container, Iterable, MutableSet
/usr/local/lib/python3.7/site-packages/markupsafe/_init_.py:13: DeprecationWarning: Using or importing the ABCs from 'collections' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import Mapping
/usr/local/lib/python3.7/site-packages/jsonschema/compat.py:6: DeprecationWarning: Using or importing the ABCs from 'collections' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import MutableMapping, Sequence  # noqa
/usr/local/lib/python3.7/site-packages/flask/app.py:2305: PytestWarning: cannot collect 'tested_app' because it is not a function.
  def __call__(self, environ, start_response):
-- Docs: https://docs.pytest.org/en/latest/warnings.html
===== 3 passed, 5 warnings in 0.22 seconds =====
```

1.1 Test 1

This set of tests checks the correctness of */doodles* methods by insertion of 3 polls and checks the correct memorization through the GET request.

POST

http://127.0.0.1:5000/doodles

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

```
1 {  
2   "title" : "poll1",  
3   "options" : ["1", "2", "3"]  
4 }
```

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 5 ms

Size: 163 B

Save

Pretty

Raw

Preview

JSON

```
1 {  
2   "pollnumber": 1  
3 }
```

POST

http://127.0.0.1:5000/doodles

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

"title" : "poll2",

3

"options" : ["1", "2"]

4

}

5

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 8 ms

Size: 163 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"pollnumber": 2

3

}

POST

http://127.0.0.1:5000/doodles

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

"title" : "poll3",

3

"options" : ["pizza", "disco"]

4

5

}

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 10 ms

Size: 163 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"pollnumber": 3

3

}

GET
http://127.0.0.1:5000/doodles
Send

Params
Authorization
Headers (1)
Body
Pre-request Script
Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body
Cookies
Headers (4)
Test Results
Status: 200 OK
Time: 7 ms
Size: 405 B
Save

Pretty
Raw
Preview
JSON

```

1 {
2   "activepolls": [
3     {
4       "id": 1,
5       "options": {
6         "1": ☐,
7         "2": ☐,
8         "3": ☐
9       },
10      "title": "poll1",
11      "winners": [
12        "1",
13        "2",
14        "3"
15      ]
16    },
17    {
18      "id": 2,
19      "options": {
20        "1": ☐,
21        "2": ☐
22      },
23      "title": "poll2",
24      "winners": [
25        "1",
26        "2"
27      ]
28    },
29    {
30      "id": 3,
31      "options": {
32        "disco": ☐,
33        "pizza": ☐
34      },
35      "title": "poll3",
36      "winners": [
37        "pizza",
38        "disco"
39      ]
40    }
41  ]
42 }

```

1.2 Test 2

This set of tests checks the correctness of `/doodles/ <id>` methods. What is happen during the recovery of a non-existing poll, how it behaves in case of voting an non-existing option or voting twice the same option. The same checks are performed for the delete operation.

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** http://127.0.0.1:5000/doodles/2
- Status:** 200 OK
- Time:** 8 ms
- Size:** 217 B
- Body:** A JSON object representing a poll with id 2, two options, title "poll2", and two winners.

```
1 {
2   "id": 2,
3   "options": {
4     "1": [],
5     "2": []
6   },
7   "title": "poll2",
8   "winners": [
9     "1",
10    "2"
11  ]
12 }
```

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** http://127.0.0.1:5000/doodles/12
- Status:** 404 NOT FOUND
- Time:** 9 ms
- Size:** 454 B
- Body:** A JSON object containing error details for the 404 status.

```
1 {
2   "code": 404,
3   "description": "The requested URL was not found on the server. If you entered the URL manually please check your spelling and try again.",
4   "message": "404 Not Found: The requested URL was not found on the server. If you entered the URL manually please check your spelling and try again."
5 }
```

PUT

http://127.0.0.1:5000/doodles/2

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

```
1 {  
2   "person" : "fred",  
3   "option" : "1"  
4 }  
5
```

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 8 ms

Size: 164 B

Save

Pretty

Raw

Preview

JSON

```
1 {  
2   "winners": [  
3     "1"  
4   ]  
5 }
```

PUT

http://127.0.0.1:5000/doodles/2

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1 {

2 "person" : "fred",

3 "option" : "2"

4 }

5 }

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 7 ms

Size: 168 B

Save

Pretty

Raw

Preview

JSON

1 {

2 "winners": [

3 "1",

4 "2"

5]

6 }

PUT

http://127.0.0.1:5000/doodles/2

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

"person" : "barney",

3

"option" : "1"

4

}

5

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 9 ms

Size: 164 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"winners": [

3

"1"

4

]

5

}

PUT

http://127.0.0.1:5000/doodles/2

Send

Save

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

Cookies

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

```
1 {
2   "person" : "barney",
3   "option" : "1"
4 }
5
```

Body

Cookies

Headers (4)

Test Results

Status: 400 BAD REQUEST

Time: 9 ms

Size: 368 B

Save

Download

Pretty

Raw

Preview

JSON

```
1 {
2   "code": 400,
3   "description": "The browser (or proxy) sent a request that this server could not
4   understand.",
5   "message": "400 Bad Request: The browser (or proxy) sent a request that this server
6   could not understand."
7 }
```

PUT

http://127.0.0.1:5000/doodles/2

Send

Save

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

Cookies

☐ form-data

☐ x-www-form-urlencoded

☒ raw

☐ binary

JSON (application/json)

```
1 {  
2   "person" : "wilma",  
3   "option" : "8"  
4  
5 }
```

Body

Cookies

Headers (4)

Test Results

Status: 400 BAD REQUEST

Time: 8 ms

Size: 368 B

Save

Download

Pretty

Raw

Preview

JSON

```
1 {  
2   "code": 400,  
3   "description": "The browser (or proxy) sent a request that this server could not  
4   understand.",  
5   "message": "400 Bad Request: The browser (or proxy) sent a request that this server  
6   could not understand."  
7 }
```

DELETE

http://127.0.0.1:5000/doodles/2

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

	KEY	VALUE	DESCRIPTION
	Key	Value	Description

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 6 ms

Size: 164 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"winners": [

3

"1"

4

]

5

}

GET

http://127.0.0.1:5000/doodles

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 7 ms

Size: 334 B

Save

Pretty

Raw

Preview

JSON

```

1 {
2   "activepolls": [
3     {
4       "id": 1,
5       "options": {
6         "1": ☐,
7         "2": ☐,
8         "3": ☐
9       },
10      "title": "poll1",
11      "winners": [
12        "1",
13        "2",
14        "3"
15      ]
16    },
17    {
18      "id": 3,
19      "options": {
20        "disco": ☐,
21        "pizza": ☐
22      },
23      "title": "poll3",
24      "winners": [
25        "pizza",
26        "disco"
27      ]
28    }
29  ]
30 }

```

DELETE

Send
Save

Params
Authorization
Headers (1)
Body
Pre-request Script
Tests
Cookies
Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body
Cookies
Headers (4)
Test Results
Status: 410 GONE
Time: 3 ms
Size: 552 B
Save
Download

Pretty
Raw
Preview
JSON

```

1 {
2   "code": 410,
3   "description": "The requested URL is no longer available on this server and there is
4   no forwarding address. If you followed a link from a foreign page, please contact
5   the author of this page.",
6   "message": "410 Gone: The requested URL is no longer available on this server and
7   there is no forwarding address. If you followed a link from a foreign page, please
8   contact the author of this page."
9 }

```

DELETE

Send
Save

Params
Authorization
Headers (1)
Body
Pre-request Script
Tests
Cookies
Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body
Cookies
Headers (4)
Test Results
Status: 404 NOT FOUND
Time: 10 ms
Size: 454 B
Save
Download

Pretty
Raw
Preview
JSON

```

1 {
2   "code": 404,
3   "description": "The requested URL was not found on the server. If you entered the URL
4   manually please check your spelling and try again.",
5   "message": "404 Not Found: The requested URL was not found on the server. If you
6   entered the URL manually please check your spelling and try again."
7 }

```

GET

http://127.0.0.1:5000/doodles/2

Send

Save

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

Cookies

Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body

Cookies

Headers (4)

Test Results

Status: 410 GONE

Time: 8 ms

Size: 552 B

Save

Download

Pretty

Raw

Preview

JSON

```
1 {
2   "code": 410,
3   "description": "The requested URL is no longer available on this server and there is
4   no forwarding address. If you followed a link from a foreign page, please contact
5   the author of this page.",
6   "message": "410 Gone: The requested URL is no longer available on this server and
7   there is no forwarding address. If you followed a link from a foreign page, please
8   contact the author of this page."
9 }
```

1.3 Test 3

This set of tests checks the correctness of `/doodles/ <id> / <person>` methods if get and delete votes from a person who did not vote and get votes from a non-existing poll have the behaviour determined during the coding phase

The screenshot displays a REST client interface. At the top, a PUT request is configured for the URL `http://127.0.0.1:5000/doodles/1`. The 'Body' tab is selected, showing a JSON payload:

```
{
  "person": "fred",
  "option": "1"
}
```

. Below the request, the 'Test Results' section shows a successful response with status `200 OK`, time `9 ms`, and size `164 B`. The response body is displayed in JSON format:

```
{
  "winners": [
    "1"
  ]
}
```

PUT `http://127.0.0.1:5000/doodles/1` Send

Params Authorization Headers (1) Body Pre-request Script Tests

form-data x-www-form-urlencoded raw binary JSON (application/json)

```
1 {
2   "person" : "fred",
3   "option" : "1"
4 }
5
```

Body Cookies Headers (4) Test Results Status: 200 OK Time: 9 ms Size: 164 B Save

Pretty Raw Preview JSON

```
1 {
2   "winners": [
3     "1"
4   ]
5 }
```


PUT

http://127.0.0.1:5000/doodles/1

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

 "person" : "fred",

3

 "option" : "2"

4

5

}

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 4 ms

Size: 168 B

Save

Pretty

Raw

Preview

JSON

1

{

2

 "winners": [

3

 "1",

4

 "2"

5

]

6

}

PUT

http://127.0.0.1:5000/doodles/1

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

"person" : "barney",

3

"option" : "1"

4

}

5

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 9 ms

Size: 164 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"winners": [

3

"1"

4

]

5

}

GET http://127.0.0.1:5000/doodles/1/fred Send

Params Authorization Headers (1) Body Pre-request Script Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results Status: 200 OK Time: 9 ms Size: 173 B Save

Pretty Raw Preview JSON

```
1 {
2   "votedoptions": [
3     "1",
4     "2"
5   ]
6 }
```

GET http://127.0.0.1:5000/doodles/1/wilma Send

Params Authorization Headers (1) Body Pre-request Script Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results Status: 200 OK Time: 8 ms Size: 166 B Save

Pretty Raw Preview JSON

```
1 {
2   "votedoptions": []
3 }
```

DELETE

http://127.0.0.1:5000/doodles/1/fred

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 7 ms

Size: 163 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"removed": true

3

}

GET

http://127.0.0.1:5000/doodles/1/fred

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body

Cookies

Headers (4)

Test Results

Status: 200 OK

Time: 4 ms

Size: 166 B

Save

Pretty

Raw

Preview

JSON

1

{

2

"votedoptions": []

3

}

DELETE
http://127.0.0.1:5000/doodles/1/wilma
Send

Params
Authorization
Headers (1)
Body
Pre-request Script
Tests

	KEY	VALUE	DESCRIPTION
	Key	Value	Description

Body
Cookies
Headers (4)
Test Results
Status: 200 OK
Time: 10 ms
Size: 164 B
Save

Pretty
Raw
Preview
JSON

```

1 {
2   "removed": false
3 }

```

GET
http://127.0.0.1:5000/doodles/13/fred
Send
Save

Params
Authorization
Headers (1)
Body
Pre-request Script
Tests
Cookies
Code

	KEY	VALUE	DESCRIPTION	
	Key	Value	Description	...

Body
Cookies
Headers (4)
Test Results
Status: 404 NOT FOUND
Time: 9 ms
Size: 454 B
Save
Download

Pretty
Raw
Preview
JSON

```

1 {
2   "code": 404,
3   "description": "The requested URL was not found on the server. If you entered the URL manually please check your spelling and try again.",
4   "message": "404 Not Found: The requested URL was not found on the server. If you entered the URL manually please check your spelling and try again."
5 }

```

GET http://127.0.0.1:5000/doodles/2/fred Send Save

Params Authorization Headers (1) Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (4) Test Results Status: 410 GONE Time: 8 ms Size: 552 B Save Download

Pretty Raw Preview JSON

```

1 {
2   "code": 410,
3   "description": "The requested URL is no longer available on this server and there is
4   no forwarding address. If you followed a link from a foreign page, please contact
5   the author of this page.",
6   "message": "410 Gone: The requested URL is no longer available on this server and
7   there is no forwarding address. If you followed a link from a foreign page, please
8   contact the author of this page."
9 }

```

1.4 Test 4

This last set of tests checks the behaviour in case in which non-implemented https methods are invoked, e.g.DELETE request for /doodle

DELETE http://127.0.0.1:5000/doodles Send

Params Authorization Headers (1) Body Pre-request Script Tests

KEY	VALUE	DESCRIPTION	...
Key	Value	Description	

Body Cookies Headers (5) Test Results Status: 405 METHOD NOT ALLOWED Time: 32 ms Size: 367 B Save

Pretty Raw Preview HTML

```

1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
2 <title>405 Method Not Allowed</title>
3 <h1>Method Not Allowed</h1>
4 <p>The method is not allowed for the requested URL.</p>

```

PUT http://127.0.0.1:5000/doodles Send

Params Authorization Headers (1) **Body** Pre-request Script Tests

form-data x-www-form-urlencoded **raw** binary JSON (application/json)

```

1 {
2   "person": "fred",
3   "option": "1"
4 }

```

Body Cookies Headers (5) Test Results Status: 405 METHOD NOT ALLOWED Time: 4 ms Size: 367 B Save

Pretty Raw Preview HTML

```

1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
2 <title>405 Method Not Allowed</title>
3 <h1>Method Not Allowed</h1>
4 <p>The method is not allowed for the requested URL.</p>

```

POST http://127.0.0.1:5000/doodles/1 Send

Params Authorization Headers (1) **Body** Pre-request Script Tests

form-data x-www-form-urlencoded **raw** binary JSON (application/json)

```

1 {
2   "title": "poll",
3   "options": ["1", "2", "3"]
4 }

```

Body Cookies Headers (5) Test Results Status: 405 METHOD NOT ALLOWED Time: 4 ms Size: 374 B Save

Pretty Raw Preview HTML

```

1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
2 <title>405 Method Not Allowed</title>
3 <h1>Method Not Allowed</h1>
4 <p>The method is not allowed for the requested URL.</p>

```

PUT http://127.0.0.1:5000/doodles/1/fred Send

Params Authorization Headers (1) **Body** Pre-request Script Tests

form-data x-www-form-urlencoded **raw** binary JSON (application/json)

```

1 {
2   "person": "fred",
3   "option": "1"
4 }

```

Body Cookies Headers (5) Test Results Status: 405 METHOD NOT ALLOWED Time: 8 ms Size: 369 B Save

Pretty Raw Preview HTML

```

1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
2 <title>405 Method Not Allowed</title>
3 <h1>Method Not Allowed</h1>
4 <p>The method is not allowed for the requested URL.</p>

```

POST

http://127.0.0.1:5000/doodles/1/fred

Send

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

form-data

x-www-form-urlencoded

raw

binary

JSON (application/json)

1

{

2

"title": "poll1",

3

"options": ["1", "2", "3"]

4

}

Body

Cookies

Headers (5)

Test Results

Status: 405 METHOD NOT ALLOWED

Time: 4 ms

Size: 369 B

Save

Pretty

Raw

Preview

HTML

1

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">

2

<title>405 Method Not Allowed</title>

3

<h1>Method Not Allowed</h1>

4

<p>The method is not allowed for the requested URL.</p>