

ASE Homework 1

Alberto Ottimo

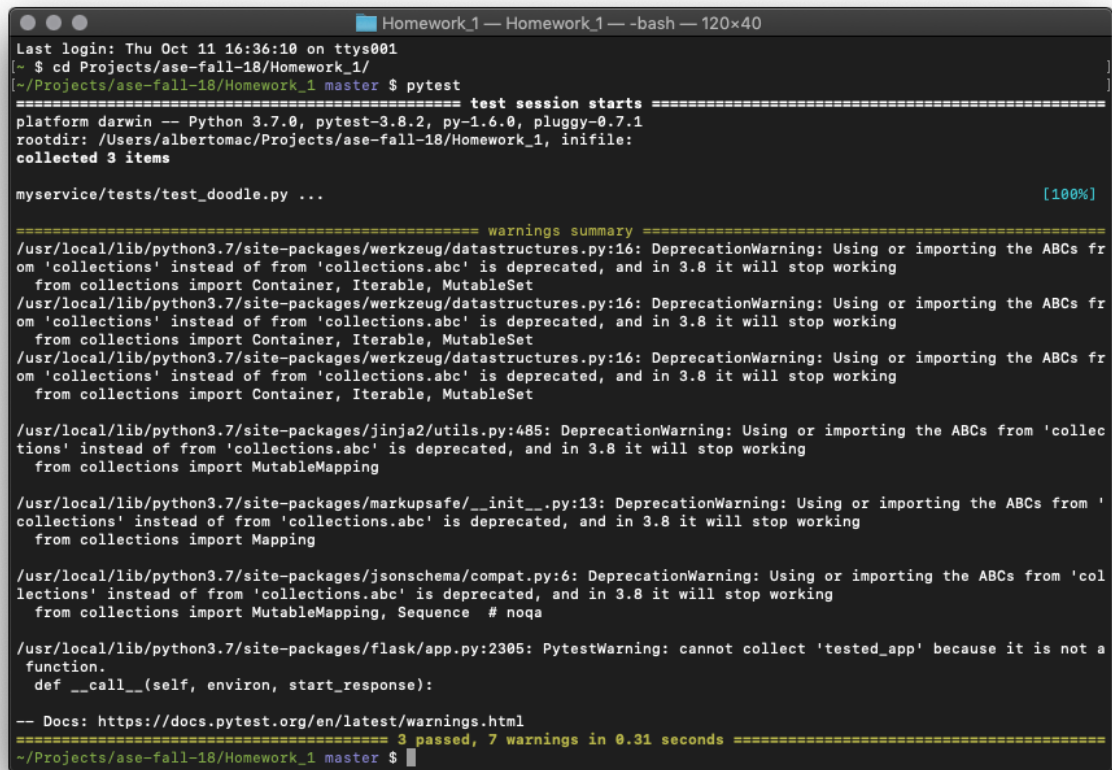
October 14, 2018

Project

The project code can be found at the following link:

https://github.com/Albertomac/ase-fall-18/tree/master/Homework_1

As shown in figure, it passed all tests of `test_doodle.py` python file.

A terminal window titled 'Homework_1 — Homework_1 — -bash — 120x40' showing the execution of 'pytest'. The output indicates a successful test session with 3 items passed and 7 warnings. The warnings are related to deprecated imports from 'collections' and 'collections.abc' in various packages like werkzeug, Jinja2, markupsafe, and flask. The test file being executed is 'myservice/tests/test_doodle.py ...'.

```
Homework_1 — Homework_1 — -bash — 120x40
Last login: Thu Oct 11 16:36:10 on ttys001
[~ $ cd Projects/ase-fall-18/Homework_1/
~/Projects/ase-fall-18/Homework_1 master $ pytest
===== test session starts =====
platform darwin -- Python 3.7.0, pytest-3.8.2, py-1.6.0, pluggy-0.7.1
rootdir: /Users/albertomac/Projects/ase-fall-18/Homework_1, inifile:
collected 3 items

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

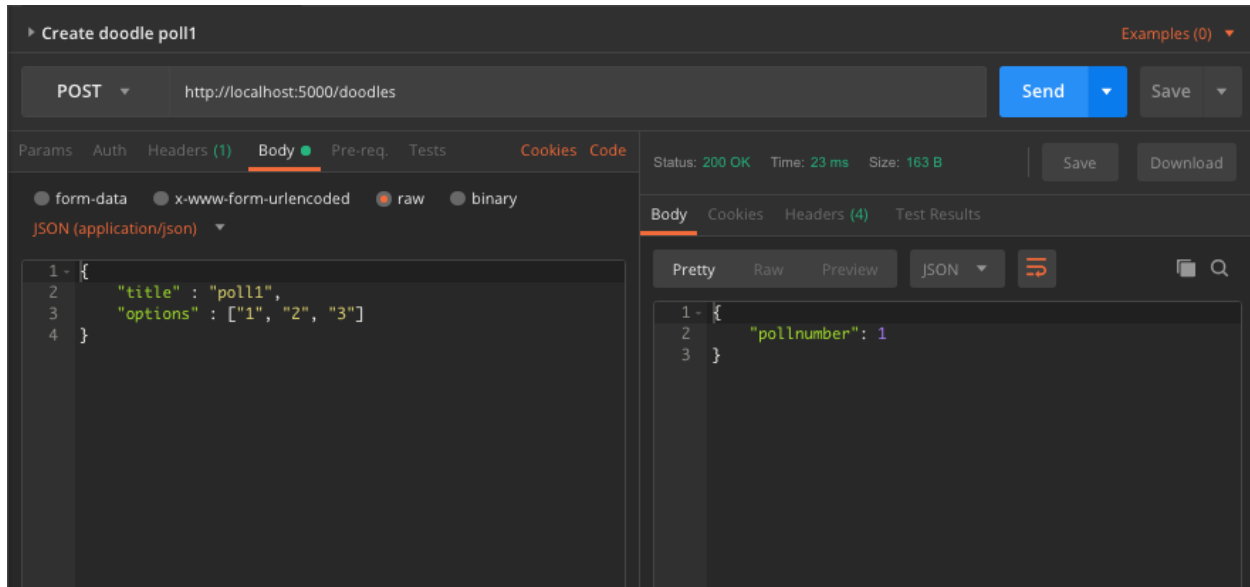
===== warnings summary =====
/usr/local/lib/python3.7/site-packages/werkzeug/datastructures.py:16: DeprecationWarning: Using or importing the ABCs fr
om 'collections' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import Container, Iterable, MutableSet
/usr/local/lib/python3.7/site-packages/werkzeug/datastructures.py:16: DeprecationWarning: Using or importing the ABCs fr
om '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 fr
om '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/jinja2/utils.py:485: DeprecationWarning: Using or importing the ABCs from 'collec
tions' instead of from 'collections.abc' is deprecated, and in 3.8 it will stop working
  from collections import MutableMapping
/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 'col
lections' 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, 7 warnings in 0.31 seconds =====
~/Projects/ase-fall-18/Homework_1 master $
```

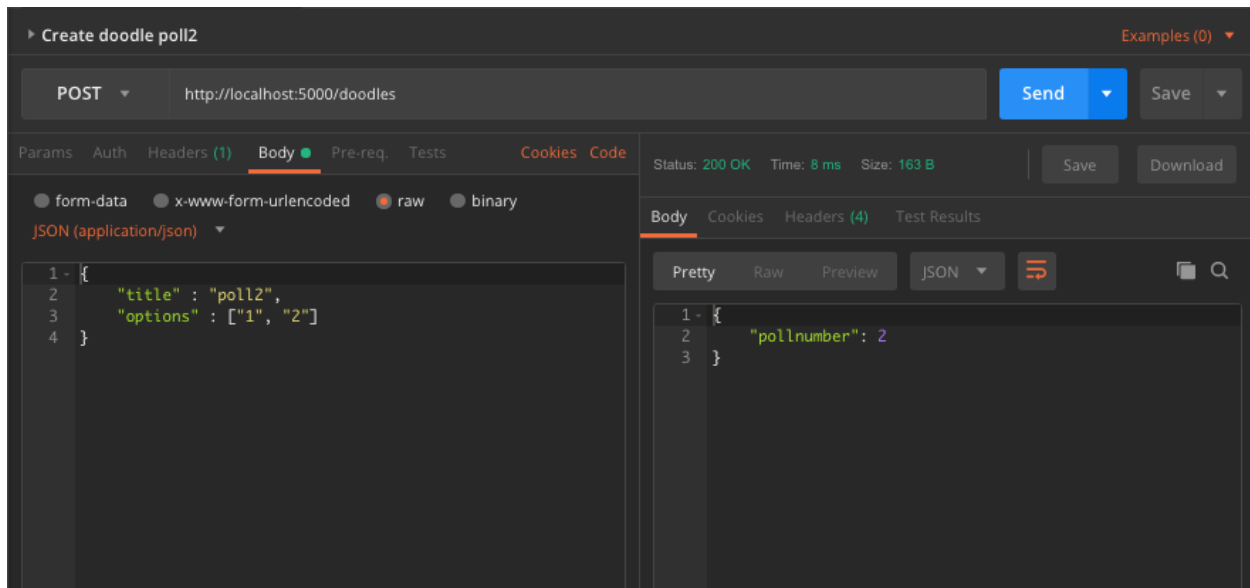
Test 1

Porting of all tests contained in `test1` function to Postman application. These tests refer to the resource `http://localhost:5000/doodles`. The first 3 tests are in charge of creating distinct doodles. The 4th test checks if the previous doodles are stored properly in the server.

Request 1: Create doodle “poll1”



Request 2: Create doodle “poll2”



Request 3: Create doodle “poll3”

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

- Method:** POST
- URL:** http://localhost:5000/doodles
- Body:** JSON (application/json)

```
1 - {  
2   "title" : "poll3",  
3   "options" : ["pizza", "disco"]  
4 }
```
- Status:** 200 OK, Time: 6 ms, Size: 163 B
- Response Body:**

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

Request 4: Get the three doodles

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

- Method:** GET
- URL:** http://localhost:5000/doodles
- Status:** 200 OK, Time: 4 ms, Size: 405 B
- Response Body:** JSON (application/json)

```
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 - ]
```

Test 2

Porting of all tests contained in `test2` function to Postman application. These tests refer to the resource `http://localhost:5000/doodles/<id>`. They test all possible limit case for every defined *HTTP methods* (GET, PUT, DELETE).

Request 1: Retrive existing doodle

Retrive existing doodle GET

GET `http://localhost:5000/doodles/2` Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Status: 200 OK Time: 12 ms Size: 217 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 2: Retrive NON-existing doodle

Retrive non-existing doodle GET

GET `http://localhost:5000/doodles/12` Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Status: 404 NOT FOUND Time: 11 ms Size: 454 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

```
1 - {
2   "code": 404,
3   "description": "The requested URL was not found on
4   the server. If you entered the URL manually
5   please check your spelling and try again.",
6   "message": "404 Not Found: The requested URL was not
7   found on the server. If you entered the URL
8   manually please check your spelling and try
9   again."
10  }
```

Request 3: Vote doodle 2 (fred, 1)

Vote ok (fred, 1) Examples (0)

PUT http://localhost:5000/doodles/2 Send Save

Params Auth Headers (1) Body Pre-req. Tests Cookies Code

form-data x-www-form-urlencoded raw binary

JSON (application/json)

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

Status: 200 OK Time: 12 ms Size: 164 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 4: Vote doodle 2 (fred, 2)

Vote ok (fred, 2) Examples (0)

PUT http://localhost:5000/doodles/2 Send Save

Params Auth Headers (1) Body Pre-req. Tests Cookies Code

form-data x-www-form-urlencoded raw binary

JSON (application/json)

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

Status: 200 OK Time: 5 ms Size: 168 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 5: Vote doodle 2 (barney, 1)

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

- Title:** Vote ok (barney, 1)
- Method:** PUT
- URL:** http://localhost:5000/doodles/2
- Body:** JSON (application/json) with content:

```
{ 1: { 2: "person": "barney", 3: "option": "1" 4: }
```
- Status:** 200 OK
- Time:** 14 ms
- Size:** 164 B
- Response Body:** JSON (application/json) with content:

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

Request 6: Vote replica doodle 2 (barney, 1)

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

- Title:** Vote replica (barney, 1)
- Method:** PUT
- URL:** http://localhost:5000/doodles/2
- Body:** JSON (application/json) with content:

```
{ 1: { 2: "person": "barney", 3: "option": "1" 4: }
```
- Status:** 400 BAD REQUEST
- Time:** 12 ms
- Size:** 368 B
- Response Body:** JSON (application/json) with content:

```
{ 1: { 2: "code": 400, 3: "description": "The browser (or proxy) sent a 4: request that this server could not understand.", 5: "message": "400 Bad Request: The browser (or proxy) 6: sent a request that this server could not 7: understand." 8: }
```

Request 7: Vote NON-existing option (wilma, 8)

Vote non-existing option (wilma, 8) Examples (0)

PUT http://localhost:5000/doodles/2 Send Save

Params Auth Headers (1) Body Pre-req. Tests Cookies Code

form-data x-www-form-urlencoded raw binary

JSON (application/json)

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

Status: 400 BAD REQUEST Time: 5 ms Size: 368 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

```
1 - {
2   "code": 400,
3   "description": "The browser (or proxy) sent a
4     request that this server could not understand.",
5   "message": "400 Bad Request: The browser (or proxy)
6     sent a request that this server could not
7     understand."
8 }
```

Request 8: Delete doodle 2

Delete doodle (2) Examples (0)

DELETE http://localhost:5000/doodles/2 Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 12 ms Size: 164 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 9: Get remaining doodles

Get remaining doodles Examples (0)

GET http://localhost:5000/doodles Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	*** Bulk Edit
Key	Value	Description	

Status: 200 OK Time: 9 ms Size: 334 B Save Download

Body Cookies Headers (4) Test Results

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 }
```

Request 10: Delete again doodle 2

Delete previously doodle (2) Examples (0)

DELETE http://localhost:5000/doodles/2 Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	*** Bulk Edit
Key	Value	Description	

Status: 410 GONE Time: 5 ms Size: 552 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

```
1 {
2   "code": 410,
3   "description": "The requested URL is no longer
4   available on this server and there is no
5   forwarding address. If you followed a link from
6   a foreign page, please contact the author of
7   this page.",
8   "message": "410 Gone: The requested URL is no longer
9   available on this server and there is no
10  forwarding address. If you followed a link from
11  a foreign page, please contact the author of
12  this page."
13 }
```


Request 11: Delete NON-existing doodle 12

Delete non-existing doodle (12) Examples (0)

DELETE Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 404 NOT FOUND Time: 9 ms Size: 454 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 {  
2   "code": 404,  
3   "description": "The requested URL was not found on  
4     the server. If you entered the URL manually  
5     please check your spelling and try again.",  
6   "message": "404 Not Found: The requested URL was not  
7     found on the server. If you entered the URL  
8     manually please check your spelling and try  
9     again."  
10 }
```

Request 12: Get previously existing doodle 2

Get previously existing doodle (2) Examples (0)

GET Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 410 GONE Time: 13 ms Size: 552 B Save Download

Body Cookies Headers (4) Test Results

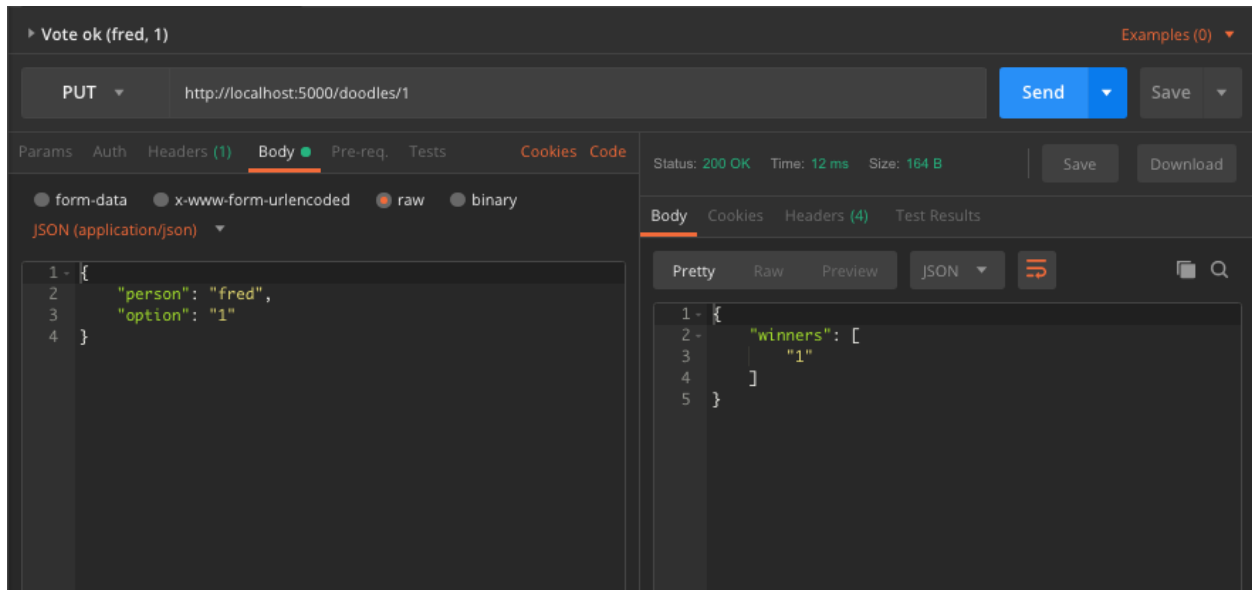
Pretty Raw Preview JSON 🔍

```
1 {  
2   "code": 410,  
3   "description": "The requested URL is no longer  
4     available on this server and there is no  
5     forwarding address. If you followed a link from  
6     a foreign page, please contact the author of  
7     this page.",  
8   "message": "410 Gone: The requested URL is no longer  
9     available on this server and there is no  
10    forwarding address. If you followed a link from  
11    a foreign page, please contact the author of  
12    this page."  
13 }
```

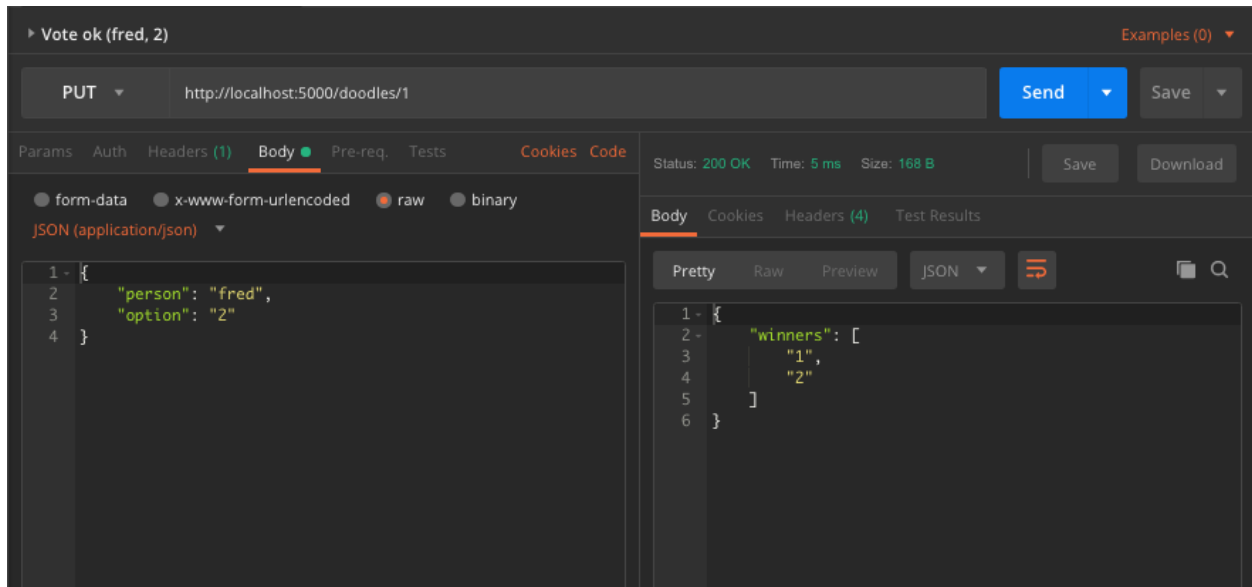
Test 3

Porting of all tests contained in `test3` function to Postman application. These tests are related to the resource `http://localhost:5000/doodles/<id>/<person>`. They test all possible limit case of `GET` and `DELETE HTTP methods`.

Request 1: Vote doodle 1 (fred, 1)



Request 2: Vote doodle 1 (fred, 2)



Request 3: Vote doodle 1 (barney, 1)

Vote ok (barney, 1) Examples (0)

PUT http://localhost:5000/doodles/1 Send Save

Params Auth Headers (1) Body Pre-req. Tests Cookies Code

form-data x-www-form-urlencoded raw binary

JSON (application/json)

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

Status: 200 OK Time: 11 ms Size: 164 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 4: Get votes from a person who voted (fred)

Get votes from a person who voted (fred) Examples (0)

GET http://localhost:5000/doodles/1/fred Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 13 ms Size: 173 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON

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

Request 5: Get votes from a person who did NOT vote (wilma)

Get votes from a person who did not vote (wilma) Examples (0)

GET Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 5 ms Size: 166 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 - {  
2   "votedoptions": ☐  
3 }
```

Request 6: Delete votes from a person who voted (fred)

Delete votes from a person who voted (fred) Examples (0)

DELETE Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 6 ms Size: 163 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 - {  
2   "removed": true  
3 }
```

Request 7: Get votes from previously deleted doodle (fred, 1)

Get votes from previously deleted doodle (fred, 1) Examples (0)

GET Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 9 ms Size: 166 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

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

Request 8: Delete votes from a person who did NOT vote (wilma)

Delete votes from a person who did not vote (wilma) Examples (0)

DELETE Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 200 OK Time: 14 ms Size: 164 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 - {  
2   "removed": false  
3 }
```

Request 9: Get votes from a NON existing pool (fred, 13)

Get votes from a non existing pool (fred, 13) Examples (0)

GET Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 404 NOT FOUND Time: 4 ms Size: 454 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 - {
2   "code": 404,
3   "description": "The requested URL was not found on
4     the server. If you entered the URL manually
5     please check your spelling and try again.",
6   "message": "404 Not Found: The requested URL was not
7     found on the server. If you entered the URL
8     manually please check your spelling and try
9     again."
10 }
```

Request 10: Get votes from a previously existing pool (fred, 2)

Get votes from a previously existing pool (fred, 2) Examples (0)

GET Send Save

Params Auth Headers Body Pre-req. Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Status: 410 GONE Time: 12 ms Size: 552 B Save Download

Body Cookies Headers (4) Test Results

Pretty Raw Preview JSON 🔍

```
1 - {
2   "code": 410,
3   "description": "The requested URL is no longer
4     available on this server and there is no
5     forwarding address. If you followed a link from
6     a foreign page, please contact the author of
7     this page.",
8   "message": "410 Gone: The requested URL is no longer
9     available on this server and there is no
10    forwarding address. If you followed a link from
11    a foreign page, please contact the author of
12    this page."
13 }
```

More Tests

The following tests show that all resource reply with "405 METHOD NOT ALLOWED" if someone tries to use an *HTTP method* not allowed by a resource.

Request 1: PUT /doodles

The screenshot shows a REST client interface for a PUT request to `http://localhost:5000/doodles`. The request body is a JSON object: `{ "title": "poll1", "options": ["1", "2", "3"] }`. The response status is `405 METHOD NOT ALLOWED` with a time of 12 ms and a size of 367 B. The response body is HTML: `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN"> <title>405 Method Not Allowed</title> <h1>Method Not Allowed</h1> <p>The method is not allowed for the requested URL.</p>`

Request 2: DELETE /doodles

The screenshot shows a REST client interface for a DELETE request to `http://localhost:5000/doodles`. The response status is `405 METHOD NOT ALLOWED` with a time of 11 ms and a size of 367 B. The response body is HTML: `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN"> <title>405 Method Not Allowed</title> <h1>Method Not Allowed</h1> <p>The method is not allowed for the requested URL.</p>`

Request 3: POST /doodles/<id>

The screenshot shows a REST client interface for a POST request to `http://localhost:5000/doodles/1`. The request body is a JSON object: `{ "title": "poll1", "options": ["1", "2", "3"] }`. The response status is `405 METHOD NOT ALLOWED` with a time of 11 ms and a size of 374 B. The response body is an HTML error page: `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN"> <title>405 Method Not Allowed</title> <h1>Method Not Allowed</h1> <p>The method is not allowed for the requested URL.</p>`.

```
POST http://localhost:5000/doodles/1
```

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

Status: 405 METHOD NOT ALLOWED Time: 11 ms Size: 374 B

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

Request 4: POST /doodles/<id>/<person>

The screenshot shows a REST client interface for a POST request to `http://localhost:5000/doodles/1/fred`. The request body is a JSON object: `{ "person": "fred", "option": "1" }`. The response status is `405 METHOD NOT ALLOWED` with a time of 4 ms and a size of 369 B. The response body is an HTML error page: `<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN"> <title>405 Method Not Allowed</title> <h1>Method Not Allowed</h1> <p>The method is not allowed for the requested URL.</p>`.

```
POST http://localhost:5000/doodles/1/fred
```

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

Status: 405 METHOD NOT ALLOWED Time: 4 ms Size: 369 B

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


Request 5: PUT /doodles/<id>/<person>

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

- Request:**
 - Method: PUT
 - URL: http://localhost:5000/doodles/1/fred
 - Body: JSON (application/json)
 - Body Content:

```
1- {
2  "title" : "poll1",
3  "options" : ["1", "2", "3"]
4 }
```
- Response:**
 - Status: 405 METHOD NOT ALLOWED
 - Time: 12 ms
 - Size: 369 B
 - Body (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>
```