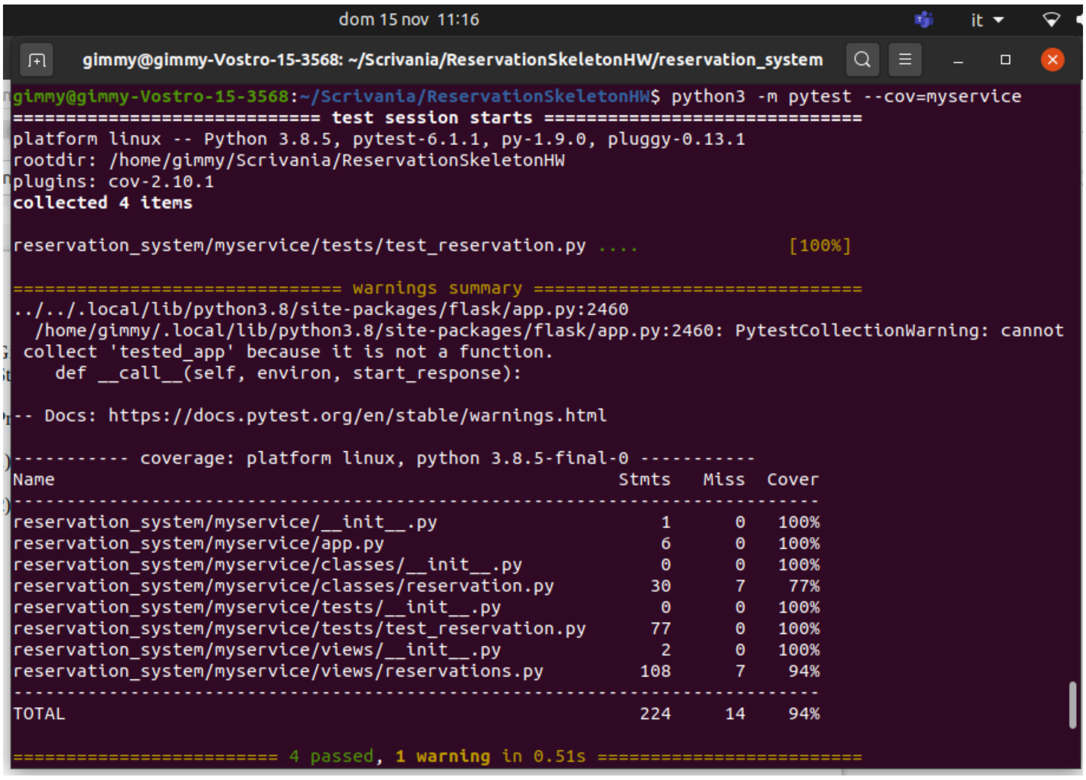
Gianmaria di Rito
Student No. 544013

Advanced Software Engineering 2020/21
Python 101 – Homework

Proposed Solution

1) link to the GitHub repository of the project: **https://github.com/GDiRit/diRito_Gianmaria_hw**

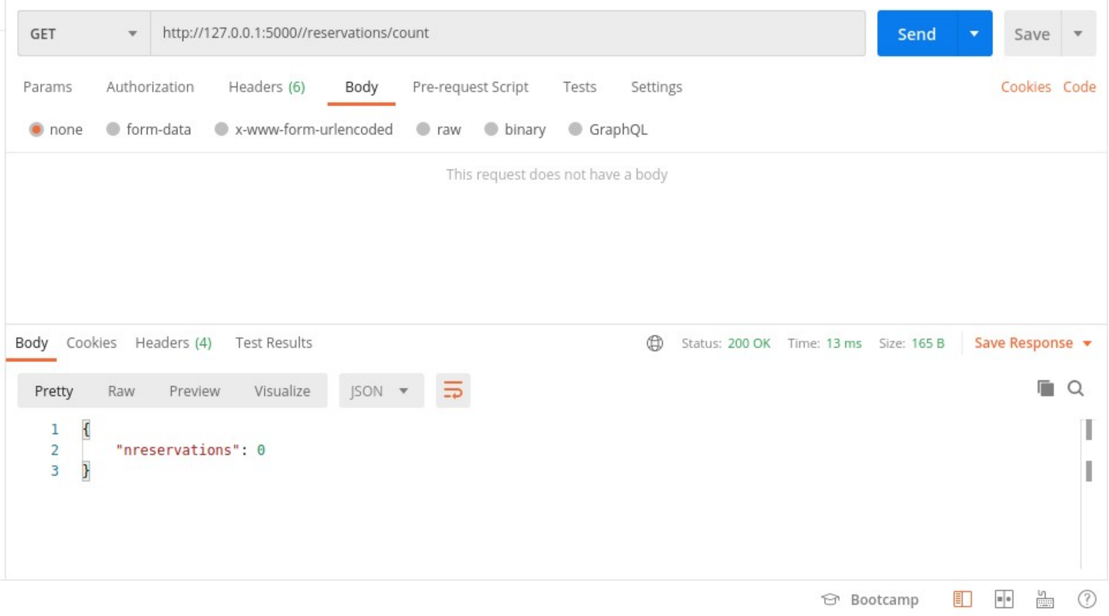
2) screenshot of the successful execution of myservice/tests/test_reservation.py with the command **python3 -m pytest --cov=myservice**:


dom 15 nov 11:16
it
gimmy@gimmy-Vostro-15-3568: ~/Scrivania/ReservationSkeletonHW/reservation_system

```
gimmy@gimmy-Vostro-15-3568:~/Scrivania/ReservationSkeletonHW$ python3 -m pytest --cov=myservice
============================= test session starts ==============================
platform linux -- Python 3.8.5, pytest-6.1.1, py-1.9.0, pluggy-0.13.1
rootdir: /home/gimmy/Scrivania/ReservationSkeletonHW
plugins: cov-2.10.1
collected 4 items

reservation_system/myservice/tests/test_reservation.py ....               [100%]

=============================== warnings summary ===============================
../../.local/lib/python3.8/site-packages/flask/app.py:2460
  /home/gimmy/.local/lib/python3.8/site-packages/flask/app.py:2460: PytestCollectionWarning: cannot
 collect 'tested_app' because it is not a function.
    def __call__(self, environ, start_response):

-- Docs: https://docs.pytest.org/en/stable/warnings.html

----------- coverage: platform linux, python 3.8.5-final-0 -----------
Name                                                    Stmts   Miss  Cover
---------------------------------------------------------------------------
reservation_system/myservice/__init__.py                    1      0   100%
reservation_system/myservice/app.py                         6      0   100%
reservation_system/myservice/classes/__init__.py            0      0   100%
reservation_system/myservice/classes/reservation.py        30      7    77%
reservation_system/myservice/tests/__init__.py              0      0   100%
reservation_system/myservice/tests/test_reservation.py     77      0   100%
reservation_system/myservice/views/__init__.py              2      0   100%
reservation_system/myservice/views/reservations.py        108      7    94%
---------------------------------------------------------------------------
TOTAL                                                     224     14    94%

========================= 4 passed, 1 warning in 0.51s =========================
```

3) the screenshots of the tests provided in test_reservation.py, performed with PostMan for all operations:

1) no loaded reservation



http://127.0.0.1:5000//reservations/count

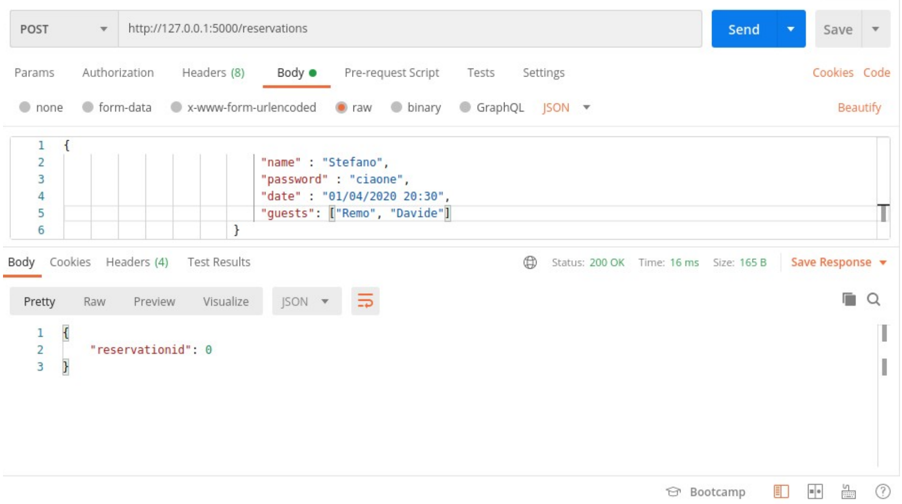
This request does not have a body

Status: 200 OK Time: 13 ms Size: 165 B

```
{
    "nreservations": 0
}
```

2) create 3 reservations:

this is a past reservation with date 01/04/2020 < 15/11/12 (today)



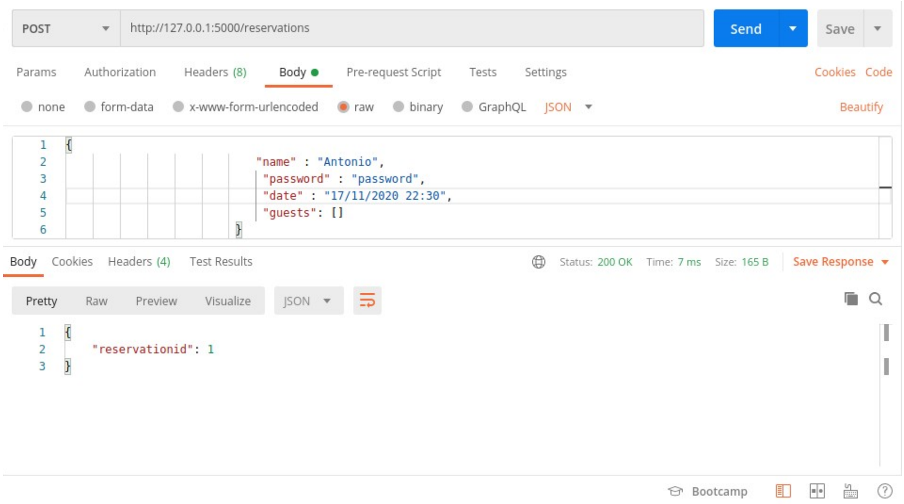
POST http://127.0.0.1:5000/reservations

```
{
                    "name" : "Stefano",
                    "password" : "ciaone",
                    "date" : "01/04/2020 20:30",
                    "guests": ["Remo", "Davide"]
                }
```

Status: 200 OK Time: 16 ms Size: 165 B

```
{
    "reservationid": 0
}
```

this is future reservation with date 17/11/2020 > 15/11/12 (today)



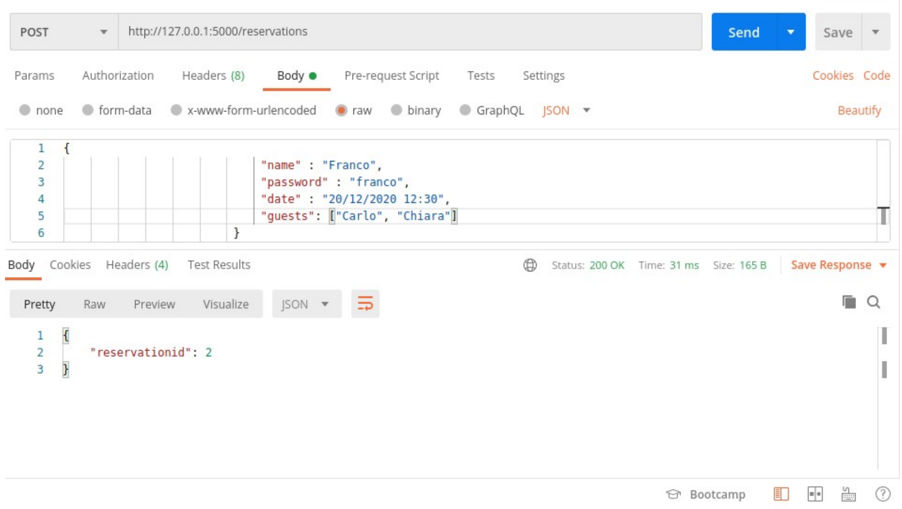
POST http://127.0.0.1:5000/reservations

```
{
                   "name" : "Antonio",
                    "password" : "password",
                    "date" : "17/11/2020 22:30",
                    "guests": []
                }
```

Status: 200 OK Time: 7 ms Size: 165 B

```
{
    "reservationid": 1
}
```

this is future reservation with date 20/12/2020 > 15/11/12 (today)



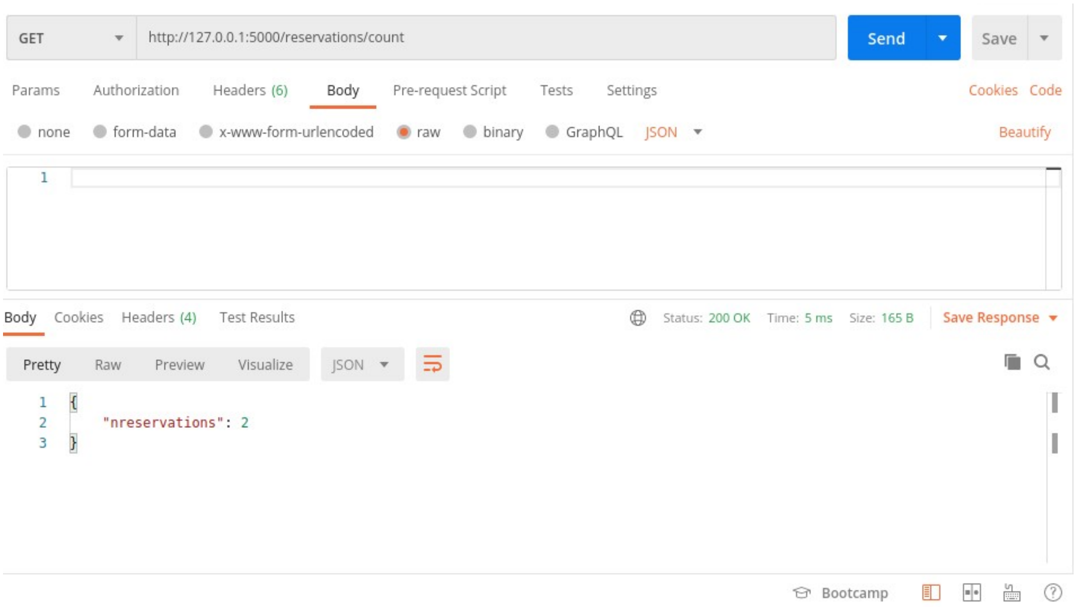
POST http://127.0.0.1:5000/reservations

```
{
                    "name" : "Franco",
                    "password" : "franco",
                    "date" : "20/12/2020 12:30",
                    "guests": ["Carlo", "Chiara"]
                }
```

Status: 200 OK Time: 31 ms Size: 165 B

```
{
    "reservationid": 2
}
```

3) get the number of future reservations



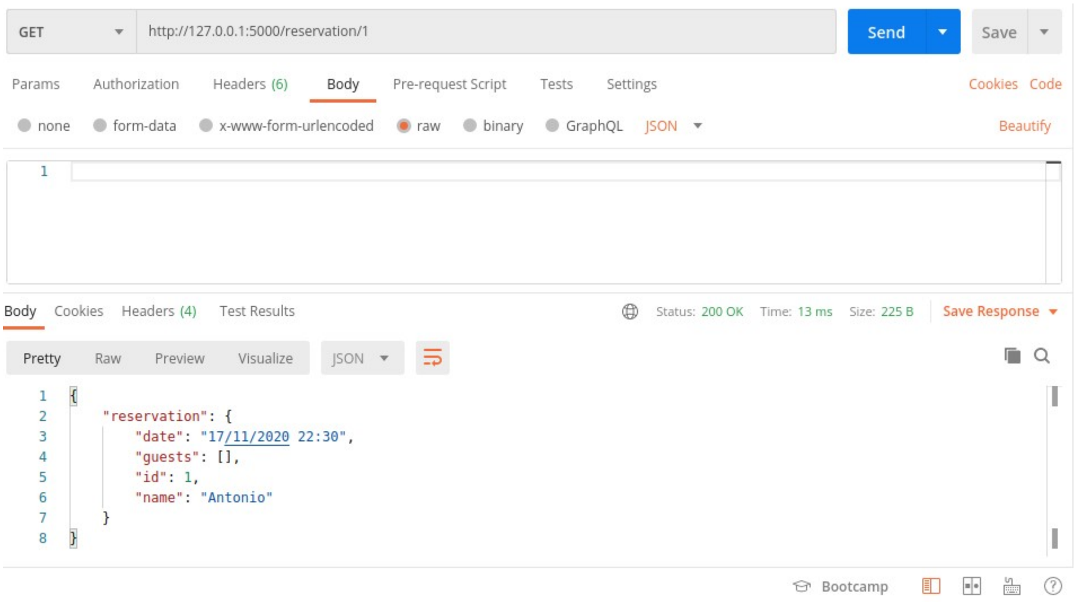
GET http://127.0.0.1:5000/reservations/count

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

Status: 200 OK Time: 5 ms Size: 165 B

```
{
    "nreservations": 2
}
```

4) get the second reservations (return the same data we pass for create the second reservation)



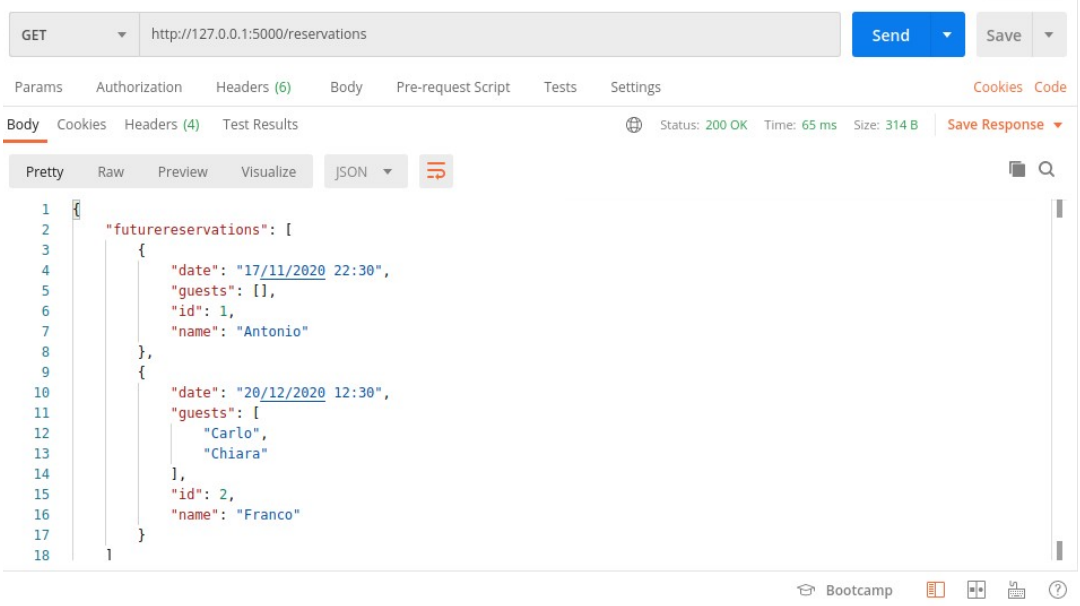
GET http://127.0.0.1:5000/reservation/1

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

Status: 200 OK Time: 13 ms Size: 225 B

```
{
    "reservation": {
        "date": "17/11/2020 22:30",
        "guests": [],
        "id": 1,
        "name": "Antonio"
    }
}
```

5) get future reservations (return only the data of the second and third reservations)

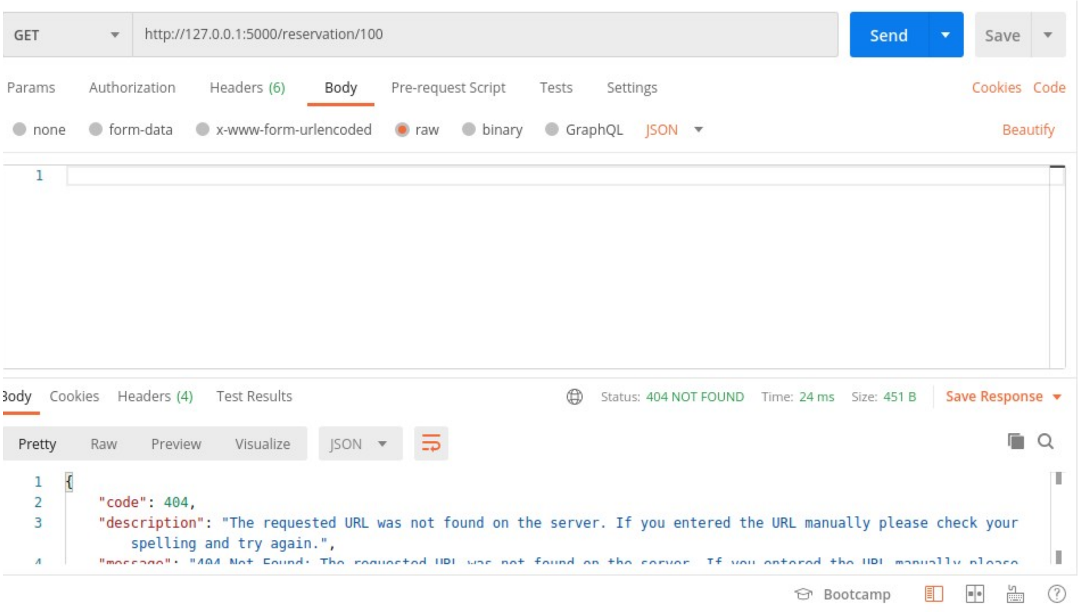


GET http://127.0.0.1:5000/reservations

Status: 200 OK Time: 65 ms Size: 314 B

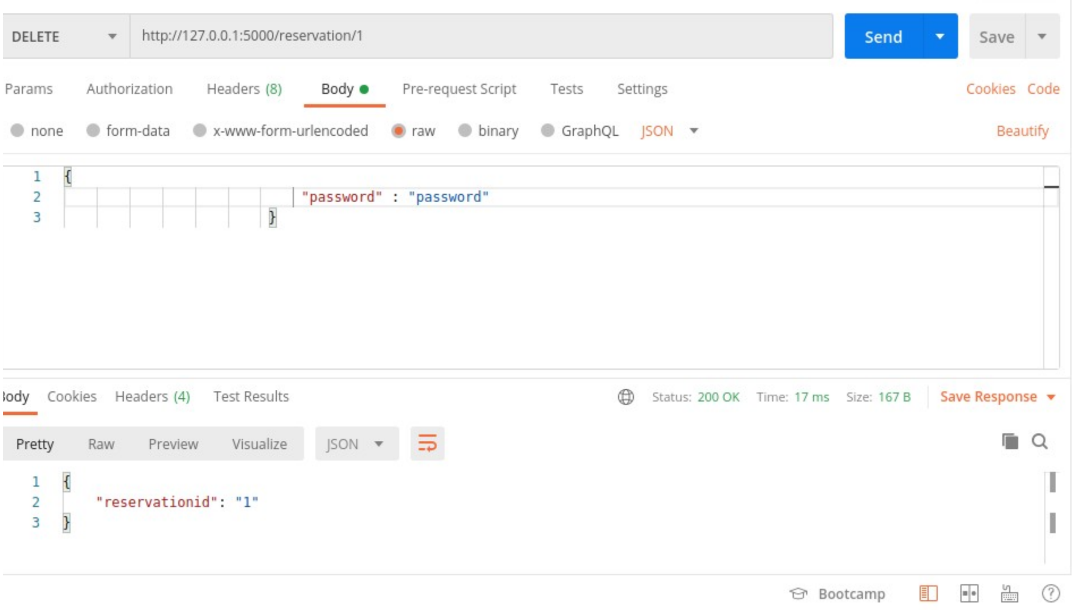
```
{
    "futurereservations": [
        {
            "date": "17/11/2020 22:30",
            "guests": [],
            "id": 1,
            "name": "Antonio"
        },
        {
            "date": "20/12/2020 12:30",
            "guests": [
                "Carlo",
                "Chiara"
            ],
            "id": 2,
            "name": "Franco"
        }
    ]
```

6) try to retrieve a non-existing reservation (code 404: the resource dose not exist)


GET
http://127.0.0.1:5000/reservation/100
Send
Save
Params Authorization Headers (6) Body Pre-request Script Tests Settings
Cookies Code
none form-data x-www-form-urlencoded raw binary GraphQL JSON
Beautify
Body Cookies Headers (4) Test Results
Status: 404 NOT FOUND Time: 24 ms Size: 451 B
Save Response
Pretty Raw Preview Visualize JSON
Bootcamp

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

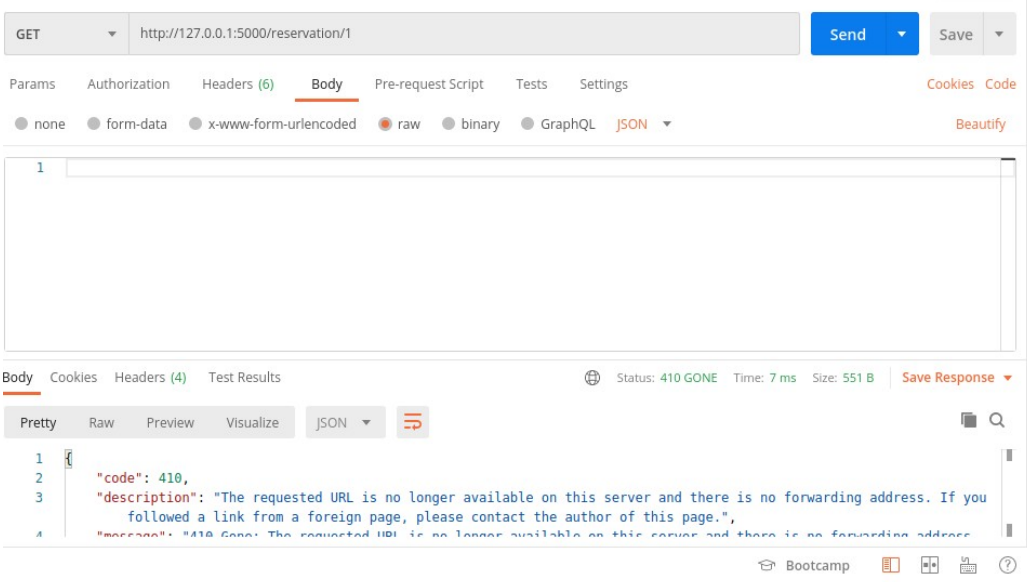
7) delete a second reservation


DELETE
http://127.0.0.1:5000/reservation/1
Send
Save
Params Authorization Headers (8) Body Pre-request Script Tests Settings
Cookies Code
none form-data x-www-form-urlencoded raw binary GraphQL JSON
Beautify
Body Cookies Headers (4) Test Results
Status: 200 OK Time: 17 ms Size: 167 B
Save Response
Pretty Raw Preview Visualize JSON
Bootcamp

```
{
                "password" : "password"
            }
```

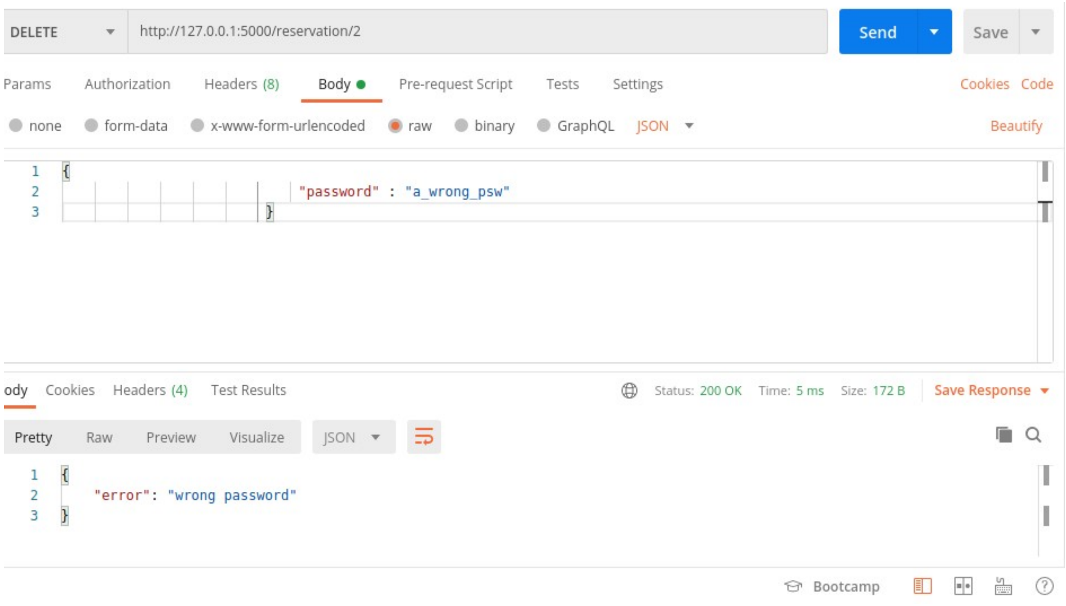
```
{
    "reservationid": "1"
}
```

8) try to retrieve the deleted reservation (code 410: reservation existed but it's not there anymore)


GET
http://127.0.0.1:5000/reservation/1
Send
Save
Params Authorization Headers (6) Body Pre-request Script Tests Settings
Cookies Code
none form-data x-www-form-urlencoded raw binary GraphQL JSON
Beautify
Body Cookies Headers (4) Test Results
Status: 410 GONE Time: 7 ms Size: 551 B
Save Response
Pretty Raw Preview Visualize JSON
Bootcamp

```
{
    "code": 410,
    "description": "The requested URL is no longer available on this server and there is no forwarding address. If you
        followed a link from a foreign page, please contact the author of this page.",
    "message": "410 Gone: The requested URL is no longer available on this server and there is no forwarding address
```

9) attempt deleting a reservation with wrong password
password of third reservation is “franco” != “a_wrong_psw”



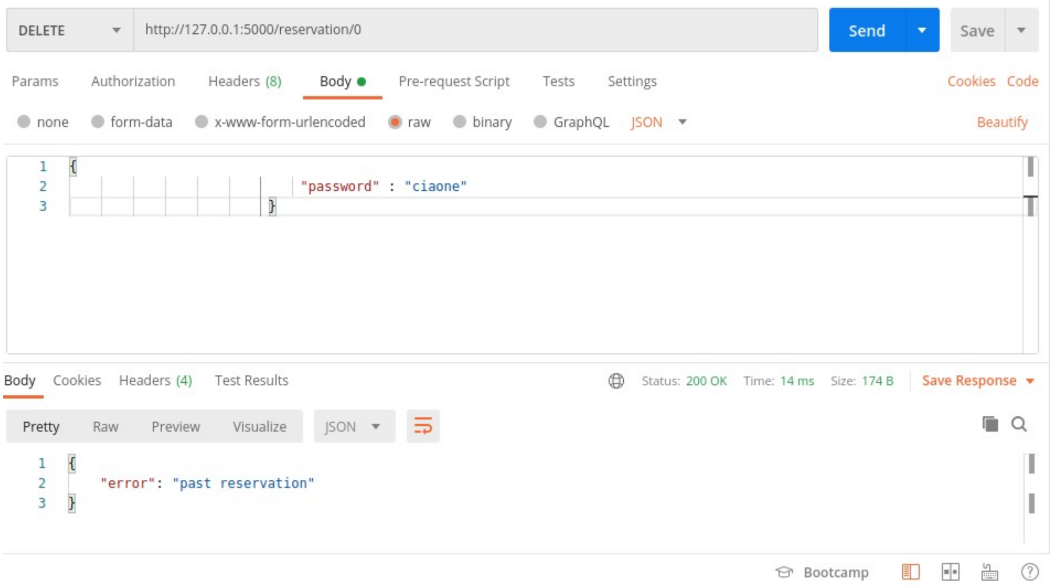
http://127.0.0.1:5000/reservation/2

```
{
    "password" : "a_wrong_psw"
}
```

Status: 200 OK Time: 5 ms Size: 172 B

```
{
    "error": "wrong password"
}
```

10) attempt deleting a past reservation (try to delete the first reservation which is the only past)



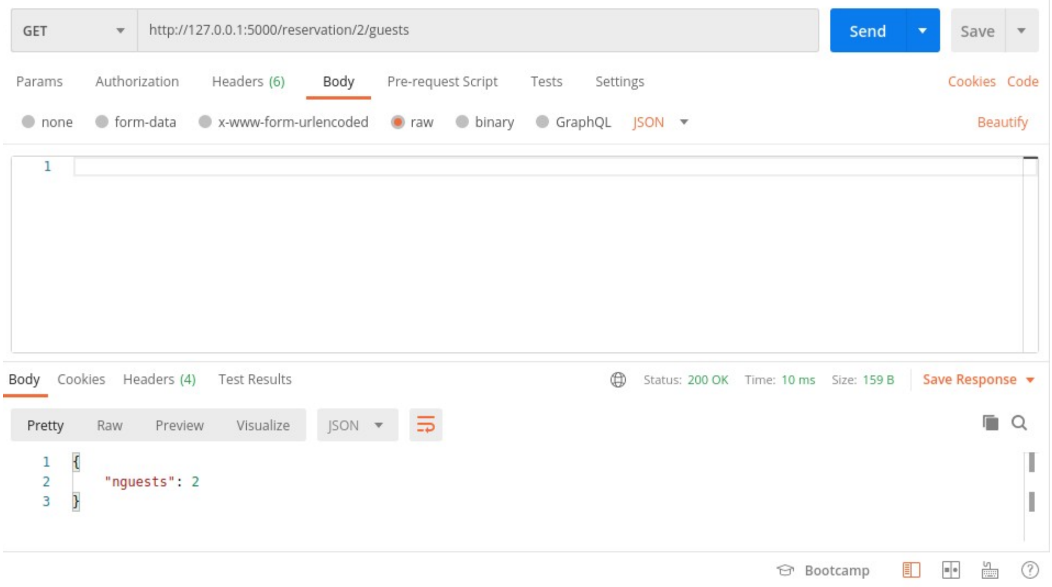
http://127.0.0.1:5000/reservation/0

```
{
    "password" : "ciaone"
}
```

Status: 200 OK Time: 14 ms Size: 174 B

```
{
    "error": "past reservation"
}
```

11) check number of guests (of the third reservation where guests=[“Carlo”, “Chiara”])

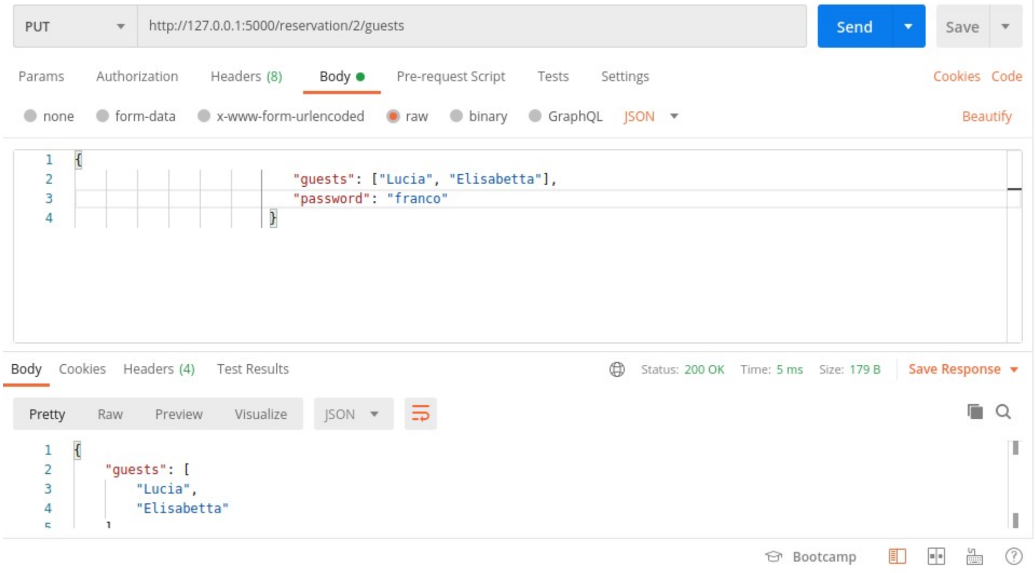


http://127.0.0.1:5000/reservation/2/guests

Status: 200 OK Time: 10 ms Size: 159 B

```
{
    "nguests": 2
}
```

12) change the list of guests (of the third reservation)
previous guests = [“Carlo”, “Chiara”], new guests = [“Lucia”, “Elisabetta”]



PUT http://127.0.0.1:5000/reservation/2/guests

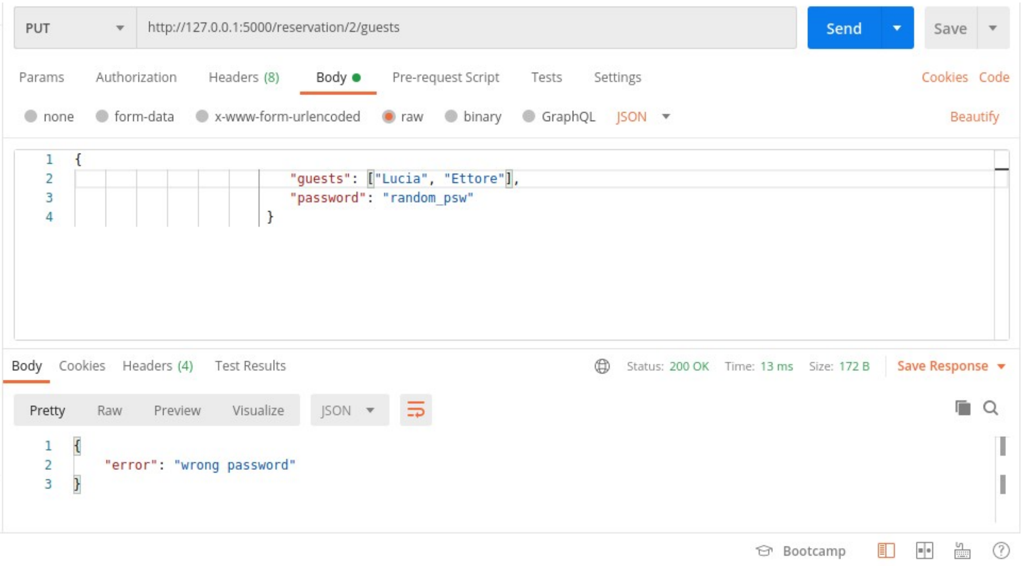
Body: raw JSON

```
{
    "guests": ["Lucia", "Elisabetta"],
    "password": "franco"
}
```

Status: 200 OK Time: 5 ms Size: 179 B

```
{
    "guests": [
        "Lucia",
        "Elisabetta"
```

13) attempt changing list of guests with wrong password
password of third reservation is “franco” != “random_psw”



PUT http://127.0.0.1:5000/reservation/2/guests

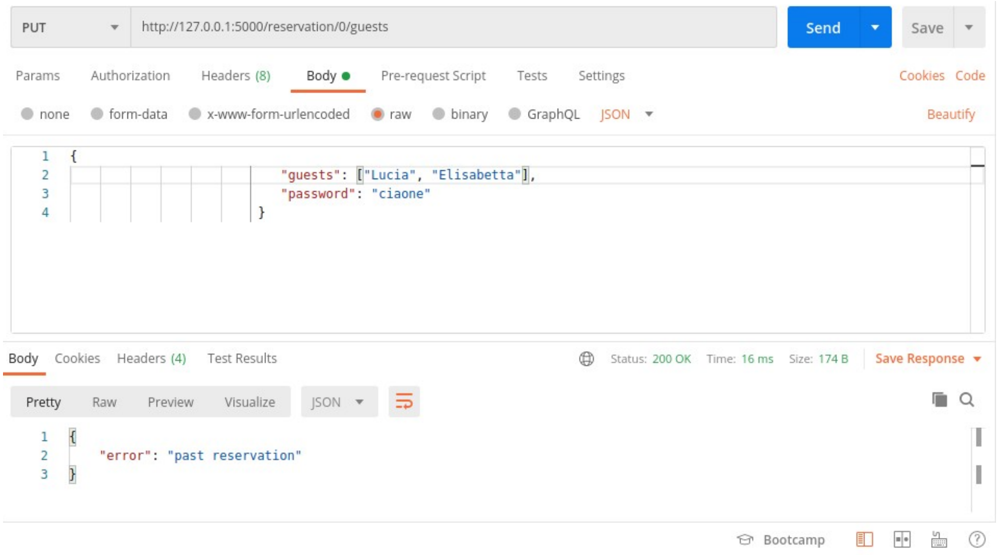
Body: raw JSON

```
{
    "guests": ["Lucia", "Ettore"],
    "password": "random_psw"
}
```

Status: 200 OK Time: 13 ms Size: 172 B

```
{
    "error": "wrong password"
}
```

14) attempt changing list of guests of past reservation
try to changing list of guests of first reservation which is the only past



PUT http://127.0.0.1:5000/reservation/0/guests

Body: raw JSON

```
{
    "guests": ["Lucia", "Elisabetta"],
    "password": "ciaone"
}
```

Status: 200 OK Time: 16 ms Size: 174 B

```
{
    "error": "past reservation"
}
```