

Homework 1

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1 Introduction

The homework implements a RESTful service with its API and it has been developed starting from a microservice skeleton. In Section 2 several screenshots have been inserted in order to show the successful execution of the tests. Section 3 contains the link to the GitHub repository of the project.

2 Tests

Tests have been executed issuing the command *pytest* from the main project folder and the implemented solution passed all of them, as shown in Figure 1.

```
(venv) fcarli@fcarli3-HP-Laptop:~/Scaricati/skeleton/skeleton$ pytest --disable-warnings
===== test session starts =====
platform linux -- Python 3.8.10, pytest-6.2.5, py-1.10.0, pluggy-1.0.0
rootdir: /home/fcarli/Scaricati/skeleton/skeleton, configfile: setup.cfg, testpaths: bedrock_a_party/tests
plugins: cov-3.0.0
collected 2 items

bedrock_a_party/tests/test_party.py ..                                [100%]

----- coverage: platform linux, python 3.8.10-final-0 -----
Name                               Stmts   Miss Branch BrPart  Cover   Missing
-----
bedrock_a_party/classes/party.py    64      10      10      2    84%    17, 31, 39-40, 86, 94, 99, 102, 107, 110
bedrock_a_party/views/parties.py    74      10      22      5    82%    24->28, 51-54, 68->73, 95-96, 104-105, 123-124, 146
TOTAL                               189      20      32      7    87%

6 files skipped due to complete coverage.
Coverage HTML written to dir htmlcov

FAIL Required test coverage of 98% not reached. Total coverage: 86.88%

===== 2 passed, 17 warnings in 0.83s =====
```

Figure 1: Output of pytest command.

2.1 Tests with PostMan

Test 1

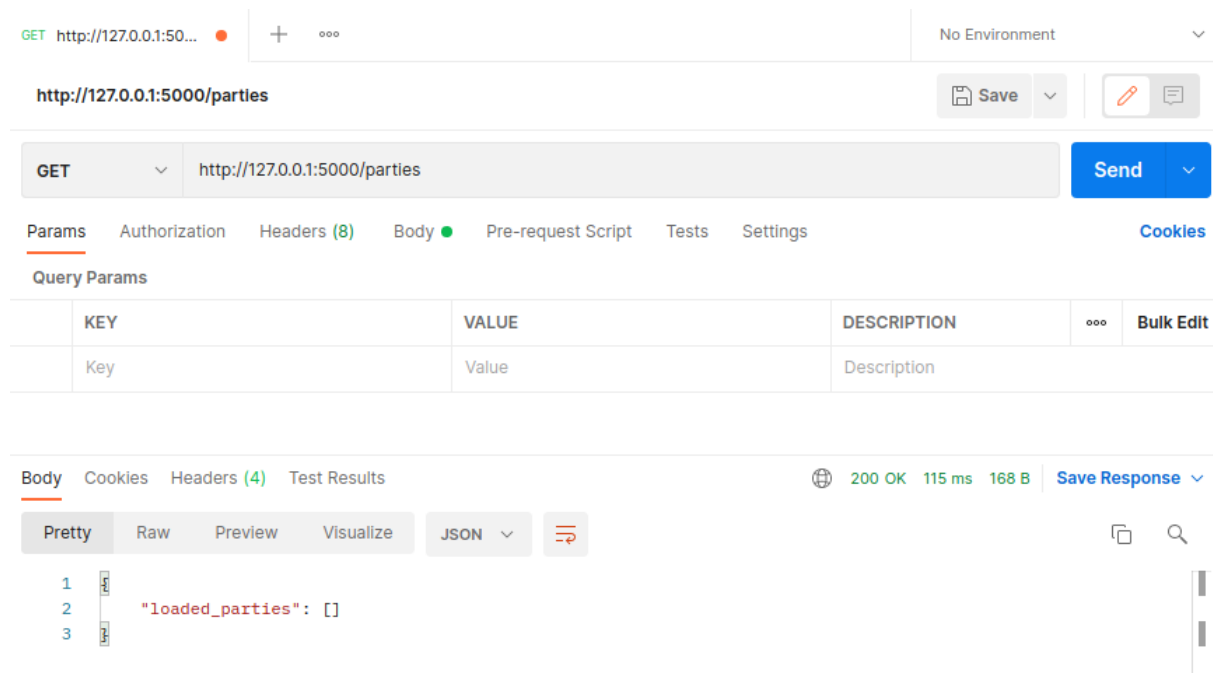


Figure 2

Figure 2 shows the output of a GET request on `/parties` with no existing parties yet.

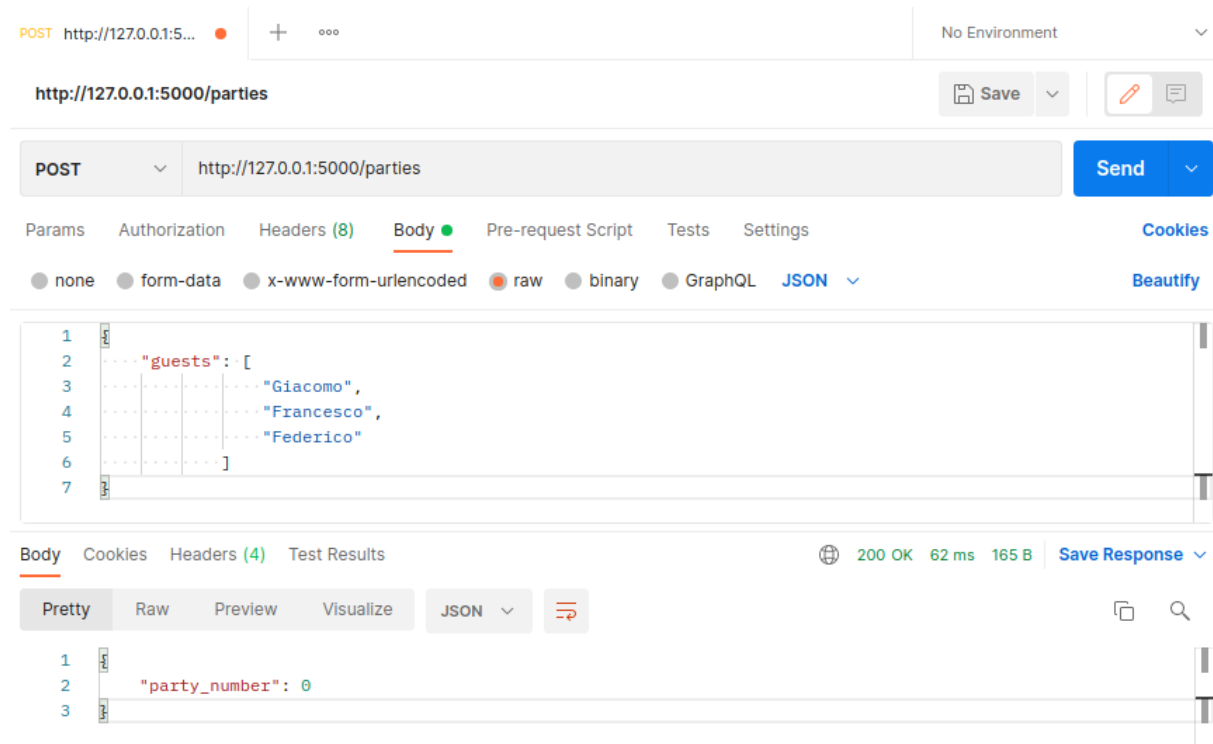


Figure 3

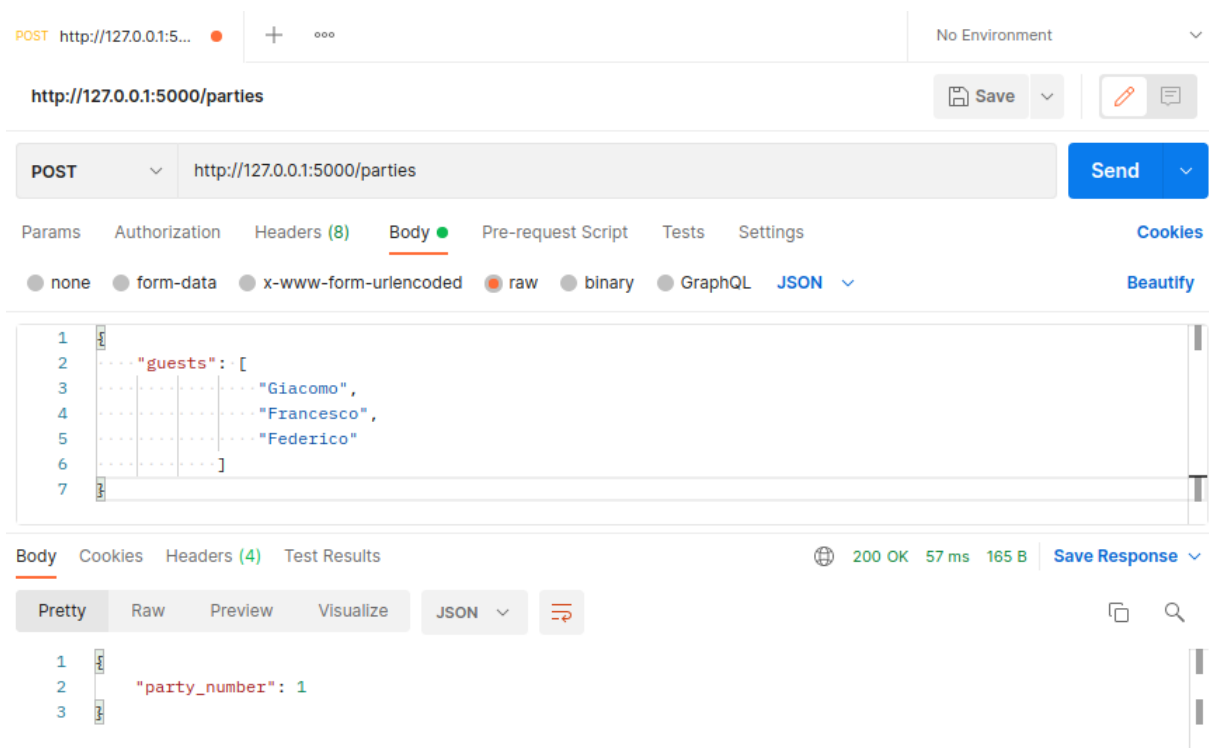


Figure 4

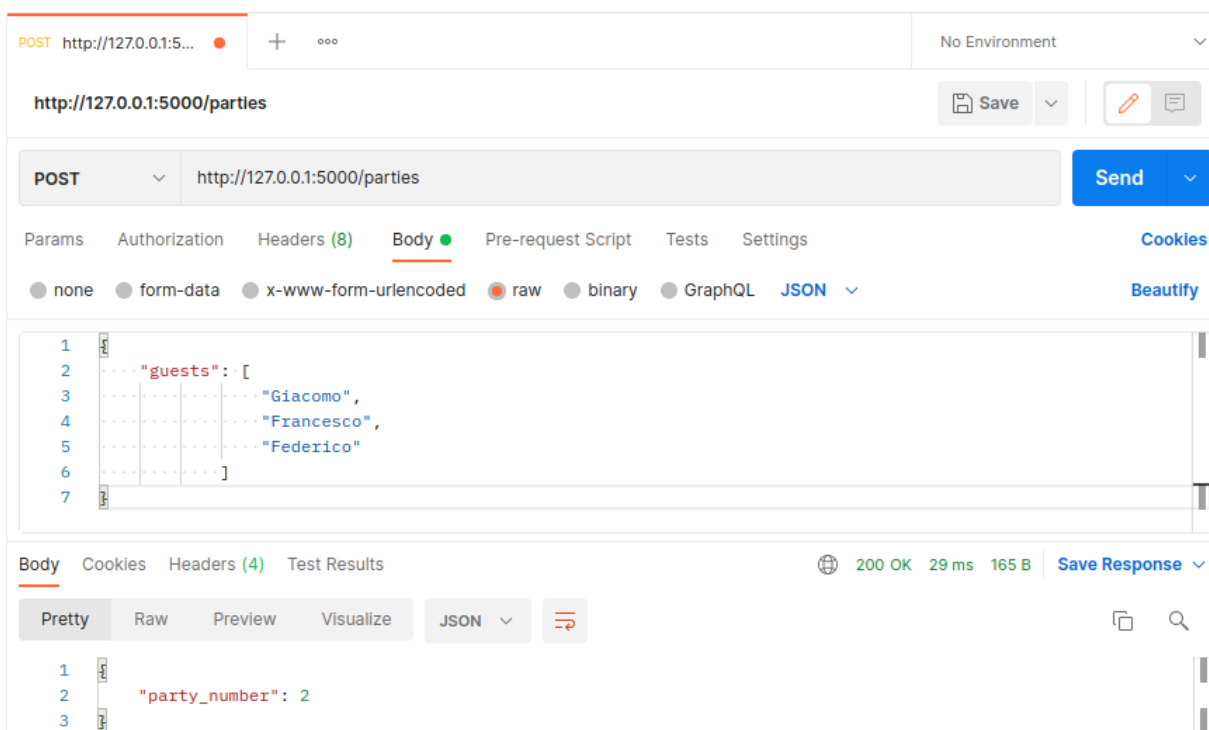


Figure 5

Figure 3, 4 and 5 show the outputs of POST requests on /parties. These requests creates three different parties.

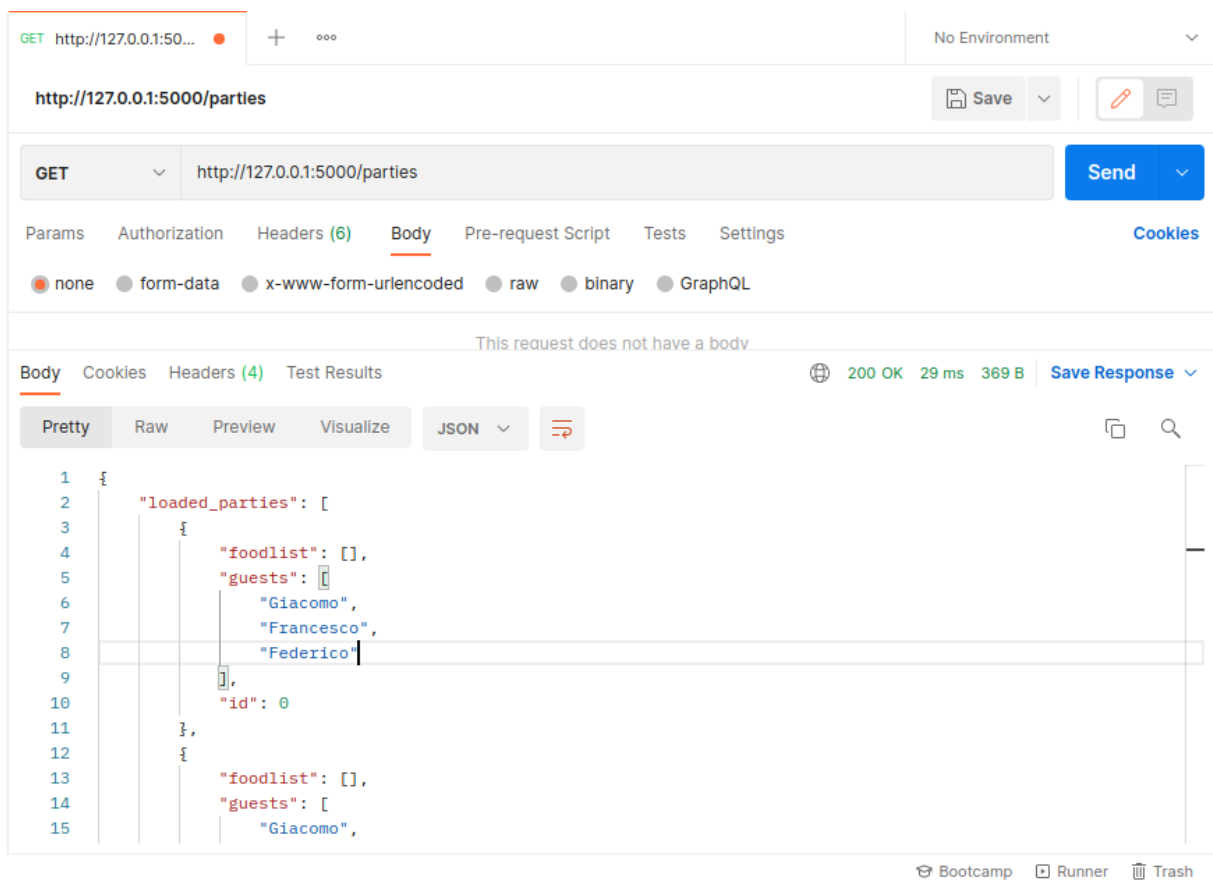


Figure 6

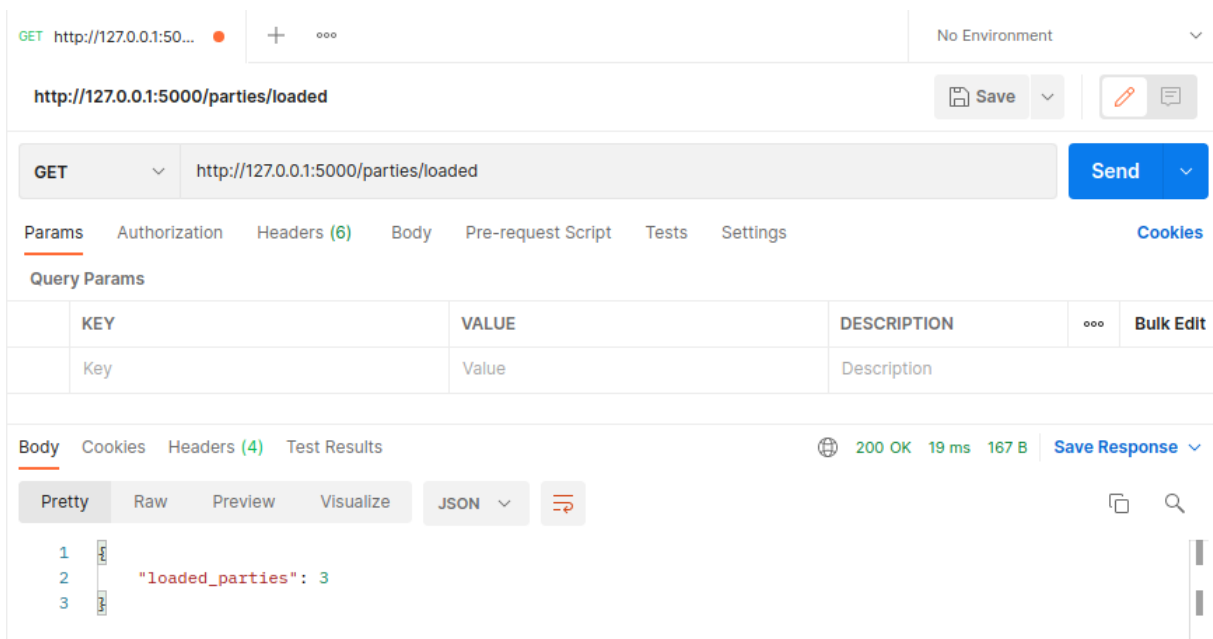


Figure 7

Figure 6 shows the partial output of a GET request on /parties, while Figure 7 shows the output of a GET request on /parties/loaded.

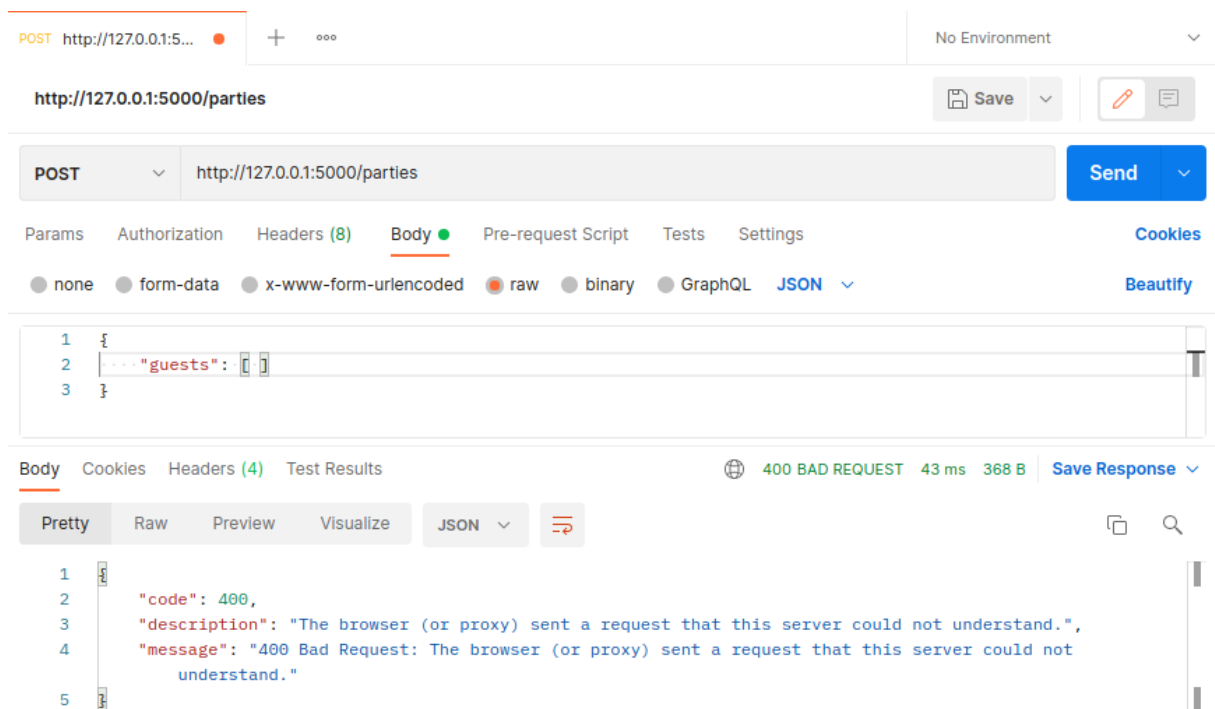


Figure 8

Figure 8 shows the output of a POST request on `/parties` with an empty list of guest. This request raises the *CannotPartyAloneError* exception.

Test 2

The screenshot shows a REST client interface with a GET request to `http://127.0.0.1:5000/party/2`. The response status is `200 OK` with a response time of `26 ms` and a body size of `213 B`. The response body is displayed in JSON format:

```
1 {
2   "foodlist": [],
3   "guests": [
4     "Giacomo",
5     "Francesco",
6     "Federico"
7   ],
8   "id": 2
9 }
```

Figure 9

The screenshot shows a REST client interface with a GET request to `http://127.0.0.1:5000/party/100`. The response status is `404 NOT FOUND` with a response time of `27 ms` and a body size of `452 B`. The response body is displayed in JSON format:

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

Figure 10

Figure 9 shows the output of a GET request on /party/2, (existing party). Figure 10 shows the output of a GET request on /party/100 (non-existing party).

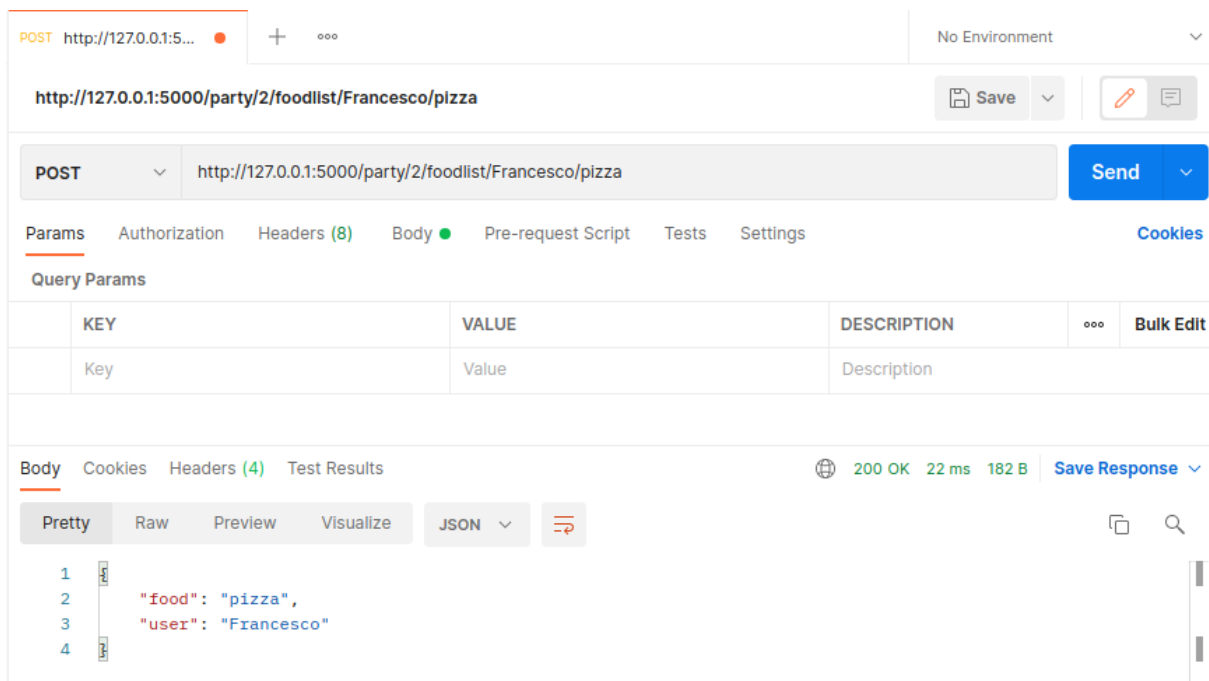


Figure 11

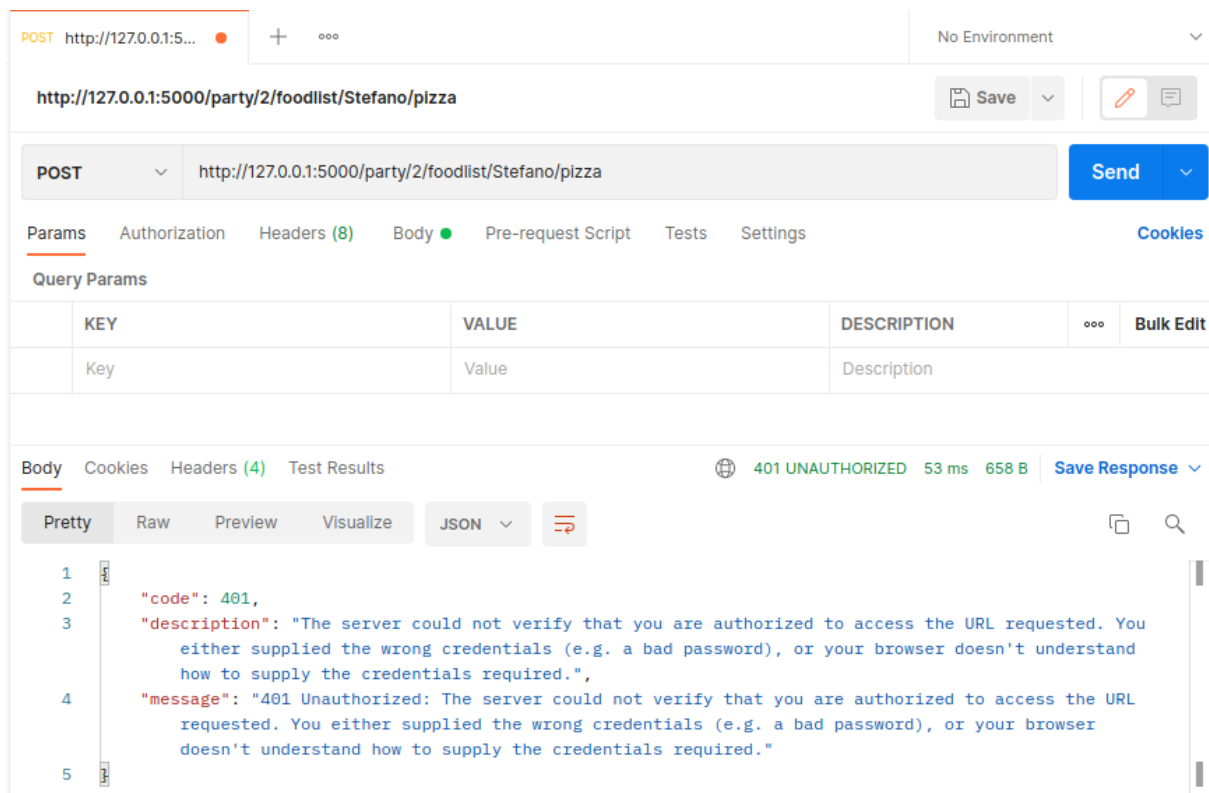


Figure 12

Figure 11 shows the output of a POST request on `/party/2/foodlist/Francesco/pizza`. Figure 12 shows a different output because the POST request is on `/party/2/foodlist/Stefano/pizza`, but Stefano is not a guest of the party, and this raises the *NotInvitedGuestError* exception.

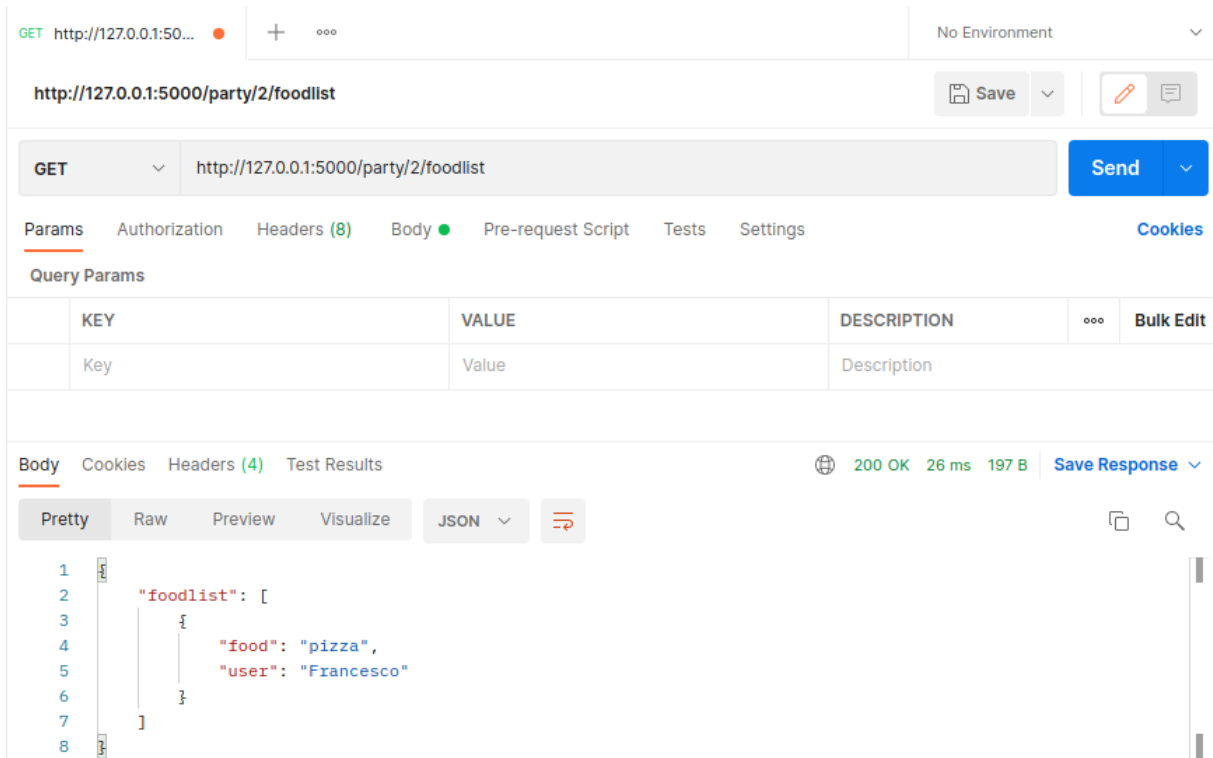


Figure 13

Figure 13 shows the output of a GET request on `/party/2/foodlist`.

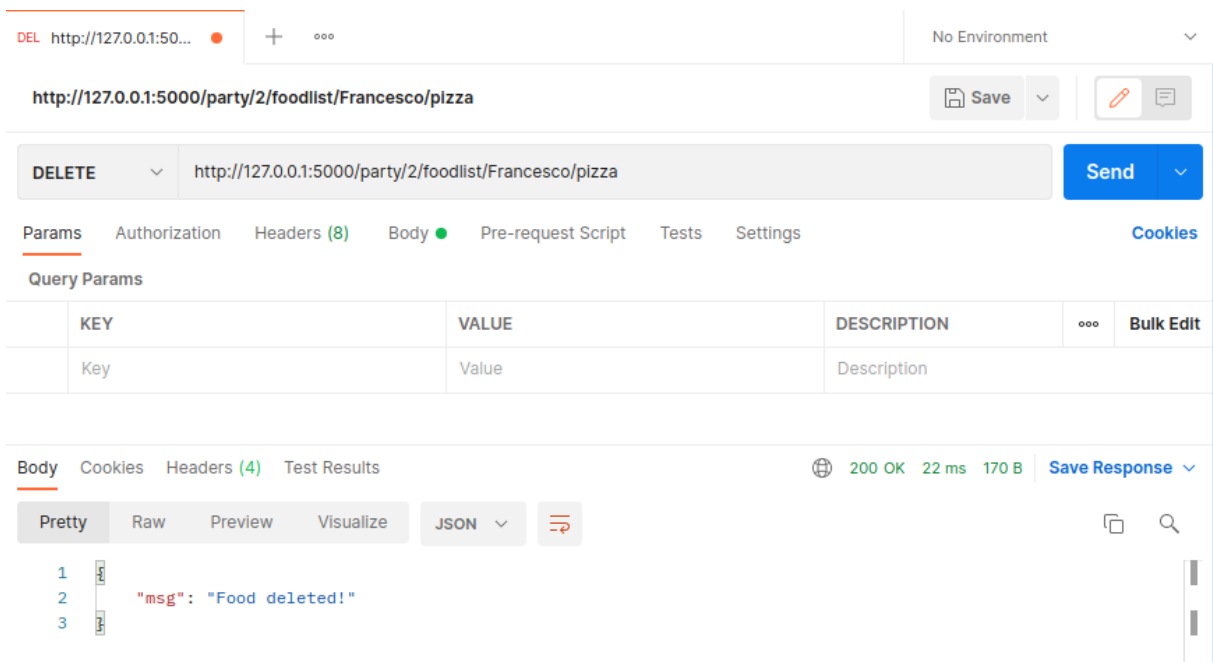


Figure 14

Figure 14 shows the output message of a DELETE request on `/party/2/foodlist/Francesco/pizza`. If the food to delete is not in the list, the *NotExistingFoodError* exception will be raised.

3 Reference

The entire homework is available on my GitHub page, at the following link: https://github.com/fcarli3/advanced_software_engineering/tree/main/Homework1