

# HW1: Bedrock-a-party

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GitHub repository: <https://github.com/pacant/Bedrock-a-party>

## 1. Introduction

The homework consists in an implementation of a RESTful service, starting from a given skeleton and exposing the API listed in the assignment. The service manages the organization of parties, registering the different parties with their guests and food lists.

## 2. Implementation

The skeleton mainly consists in a module (*party.py*) which implements the basic functionalities of the classes and the exceptions, a file for testing the code (*test\_party.py*), and a blueprint (*parties.py*) that has to offer all the functionality in a RESTful way, using *flask*.

*Flask* allows me to address the resources of the service by the URI using decorations, also I can grant the use of certain REST methods according to the API (adding `methods=[...]` to the decoration).

For exposing the API, I used the three utilities functions presents in *parties.py* for creating a party, retrieve the list of the parties and check if a party exists. For the other operations it's simply necessary to work on `_LOADED_PARTIES` dictionary and using the basic functionality of the classes for retrieving, deleting and adding data, according to the parameters in the URI of the resource.

As I said, parameters for operations are always inserted in the URI by the user (flask can fetches them because they are between angular brackets in the route), except when creating a party: in fact the user has to send the guests list (I tested it sending JSON data) with the POST method.

## 3. Testing

Two kinds of testing:

- **Pytest** (*test\_party.py*)

```

bedrock_a_party/tests/test_party.py: 13 warnings
/usr/local/lib/python3.9/site-packages/flask/json/__init__.py:211: Deprecation
Warning: Importing 'itsdangerous.json' is deprecated and will be removed in ItsD
angerous 2.1. Use Python's 'json' module instead.
rv = _json.dumps(obj, **kwargs)

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

----- coverage: platform darwin, python 3.9.7-final-0 -----
Name                               Stmts   Miss Branch BrPart  Cover   Missing
-----
bedrock_a_party/classes/party.py    64      10      10      2    84%    17, 31, 3
9-40, 86, 94, 99, 102, 107, 110
bedrock_a_party/views/parties.py    72       9      22      5    83%    25->29, 5
4-56, 70->75, 95-96, 103-104, 120-121, 142
-----
TOTAL                               187     19      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: 87.21%
===== 2 passed, 17 warnings in 0.61s =====

```

- Postman (request and response)

http://127.0.0.1:5000/parties

Save

GET http://127.0.0.1:5000/parties Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookiecutter

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (4) Test Results 200 OK 7 ms 167 B Save Response

Pretty Raw Preview Visualize JSON

```

1
2  "loaded_parties": []
3

```

http://127.0.0.1:5000/parties

Save



POST

http://127.0.0.1:5000/parties

Send

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings

Cookies

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL **JSON**

Beautify

```
1 { ... "guests": [ "Antonio",  
2 ... "Lisa",  
3 ... "Carmine" ] }
```

Body Cookies Headers (4) Test Results

200 OK 7 ms 164 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



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

http://127.0.0.1:5000/parties

Save



POST

http://127.0.0.1:5000/parties

Send

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings

Cookies

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL **JSON**

Beautify

```
1 { ... "guests": [ "Benjamin",  
2 ... "Martina",  
3 ... "Costanza" ] }
```

Body Cookies Headers (4) Test Results

200 OK 7 ms 164 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



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

http://127.0.0.1:5000/parties

Save



GET

http://127.0.0.1:5000/parties

Send

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

1

Body Cookies Headers (4) Test Results



200 OK 7 ms 166 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



1

2

3

"loaded\_parties": 3

http://127.0.0.1:5000/parties

Save



POST

http://127.0.0.1:5000/parties

Send

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

1

2

3

```
{  "guests": [    "Giacomo",    "Francesco",    "Federico"]}
```

Body Cookies Headers (4) Test Results



200 OK 18 ms 164 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



1

2

3

"party\_number": 0

http://127.0.0.1:5000/parties

Save



POST

http://127.0.0.1:5000/parties

Send

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

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

Body Cookies Headers (4) Test Results

400 BAD REQUEST 5 ms 367 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



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

http://127.0.0.1:5000/party/2

Save



GET

http://127.0.0.1:5000/party/2

Send

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

```
1
```

Body Cookies Headers (4) Test Results

200 OK 4 ms 211 B

Save Response

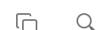
Pretty

Raw

Preview

Visualize

JSON



```
1 {
2   "foodlist": [],
3   "guests": [
4     "Benjamin",
5     "Martina",
6     "Costanza"
7   ],
8   "id": 2
9 }
```

http://127.0.0.1:5000/party/200

Save



GET

http://127.0.0.1:5000/party/200

Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON

Beautify

1

Body Cookies Headers (4) Test Results

404 NOT FOUND 7 ms 451 B Save Response

Pretty

Raw

Preview

Visualize

JSON



```
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
   manually please check your spelling and try again."
}
```

http://127.0.0.1:5000/party/2/foodlist/Martina/pizza

Save



POST

http://127.0.0.1:5000/party/2/foodlist/Martina/pizza

Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings

Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON

Beautify

1

Body Cookies Headers (4) Test Results

200 OK 5 ms 179 B Save Response

Pretty

Raw

Preview

Visualize

JSON



```
1 {
2   "food": "pizza",
3   "user": "Martina"
4 }
```

http://127.0.0.1:5000/party/2/foodlist/Stefano/pizza

Save



POST

http://127.0.0.1:5000/party/2/foodlist/Stefano/pizza

Send

Params Authorization Headers (8) **Body** Pre-request Script Tests Settings

Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON

Beautify

1

Body Cookies Headers (4) Test Results



401 UNAUTHORIZED

12 ms 657 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



```
1 {
2   "code": 401,
3   "description": "The server could not verify that you are authorized to access the URL requested. You
4     either supplied the wrong credentials (e.g. a bad password), or your browser doesn't understand
5     how to supply the credentials required.",
6   "message": "401 Unauthorized: The server could not verify that you are authorized to access the URL
7     requested. You either supplied the wrong credentials (e.g. a bad password), or your browser
8     doesn't understand how to supply the credentials required."
```

http://127.0.0.1:5000/party/2/foodlist

Save



GET

http://127.0.0.1:5000/party/2/foodlist

Send

Params Authorization Headers (7) **Body** Pre-request Script Tests Settings

Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON

Beautify

1

Body Cookies Headers (4) Test Results



200 OK

16 ms 194 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



```
1 {
2   "foodlist": [
3     {
4       "food": "pizza",
5       "user": "Martina"
6     }
7   ]
8 }
```

http://127.0.0.1:5000/party/2/foodlist/Martina/pizza

Save



DELETE

http://127.0.0.1:5000/party/2/foodlist/Martina/pizza

Send

Params Authorization Headers (7) **Body** Pre-request Script Tests Settings

Cookies

none form-data x-www-form-urlencoded **raw** binary GraphQL JSON

Beautify

1

**Body** Cookies Headers (4) Test Results

200 OK 8 ms 169 B Save Response

Pretty

Raw

Preview

Visualize

JSON



1

2

3

"msg": "Food deleted!"







