

Project: Food data central API test automation

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Version: 1.0.0

Last updated: 09.10.2022

Aim:

The aim of this project is to create a first batch of REST api test automation covering a few endpoints of "[Food data central API](#)". More info about this API can be found [here](#).

Content:

This document includes the test scenarios and results for selected endpoints. Please note this is not the whole coverage of the REST api which would be too large for the scope of this project.

The API requires authorization with an API key. The api key can be obtained using [sign up form](#). For testing purposes the API key "DEMO_KEY" was used. Please note that the DEMO key has limitations, which are explained [here](#).

Test case R001: Search with no api-key

Test case id: R001

Automated: Yes

Postman Request: Search - no API key

Test designed by: Urša Gorše

Test designed date: 09.10.2022

Priority: High

(Low/Medium/High)

Test executed by: Urša Gorše

Test execution date: 09.10.2022

Description: Search for a food without providing api-key

Execution status: Pass

(Pass/Fail/Not executed)

Preconditions:

Send HTTP request with configuration:

HTTP method: POST

URL: <https://api.nal.usda.gov/fdc/v1/foods/search>

Authorization: No auth

Content-type: application/json

Body:

```
{  
  "query": "cheese, cheddar",  
  "pageSize": 25  
}
```

Steps:

Step #	Step details	Expected result	Actual result	Execution status
1	Check response code	Response code is 403	As expected	Pass
2	Check response	Response contains error code "API_KEY_MISSING"	As expected	Pass

Test case R002: Search by name

Test case id: R002

Automated: Yes

Postman Request: Search - by name

Test designed by: Urša Gorše

Test designed date: 09.10.2022

Priority: High

(Low/Medium/High)

Test executed by: Urša Gorše

Test execution date: 09.10.2022

Description: Search for foods by name
(excluding branded foods)

Execution status: **Pass**

(Pass/Fail/Not executed)

Preconditions:

Send HTTP request with configuration:

HTTP method: POST

URL: <https://api.nal.usda.gov/fdc/v1/foods/search>

Authorization: x-api-key: DEMO_KEY

Content-type: application/json

Body:

```
{
  "query": "cheese, cheddar",
  "dataType": [
    "Foundation",
    "SR Legacy"
  ],
  "pageSize": 10
}
```

Steps:

Step #	Step details	Expected result	Actual result	Execution status
1	Check response code	Response code is 200	As expected	Pass
2	Check response	Response contains foods list which is not empty	As expected	Pass
3	Check each food in the result list	Description field contains both "cheddar" and "cheese"	As expected	Pass

Test case 003: Search by brand

Test case id: R003

Automated: Yes

Postman Request: Search - by brand owner

Priority: Medium

(Low/Medium/High)

Description: Search for foods by the brand owner's name

Preconditions:

Send HTTP request with configuration:

HTTP method: POST

URL: <https://api.nal.usda.gov/fdc/v1/foods/search>

Authorization: x-api-key: DEMO_KEY

Content-type: application/json

Body:

```
{
  "dataType": [
    "Branded"
  ],
  "pageSize": 25,
  "brandOwner": "Kar Nut Products Company"
}
```

Test designed by: Urša Gorše

Test designed date: 09.10.2022

Test executed by: Urša Gorše

Test execution date: 09.10.2022

Execution status: **Pass**

(Pass/Fail/Not executed)

Steps:

Step #	Step details	Expected result	Actual result	Execution status
1	Check response code	Response code is 200	As expected	Pass
2	Check response	Response contains foods list which is not empty	As expected	Pass
3	Check each food in the result list	brandOwner field has value "Kar Nut Products Company"	As expected	Pass

Test case 004: Food details

Test case id: R004

Automated: Yes

Postman Request: Food details

Priority: High

(Low/Medium/High)

Description: Get food details by providing food ID

Test designed by: Urša Gorše

Test designed date: 09.10.2022

Test executed by: Urša Gorše

Test execution date: 09.10.2022

Execution status: Pass

(Pass/Fail/Not executed)

Preconditions:

Send HTTP request with configuration:

HTTP method: GET

URL: <https://api.nal.usda.gov/fdc/v1/food/328637>

Authorization: x-api-key: DEMO_KEY

Content-type: application/json

Steps:

Step #	Step details	Expected result	Actual result	Execution status
1	Check response code	Response code is 200	As expected	Pass
2	Check response field fdclid	Field fdclid has value 3286637	As expected	Pass
3	Check foodNutrients list if it contains basic macronutrients: <ul style="list-style-type: none">- Energy in kcal- Protein- Fats- Carbohydrates	<p>“Energy” with the “kcal” unit exists and has a defined value.</p> <p>“Protein” exists and has a defined value.</p> <p>“Total lipid (fat)” exists and has a defined value.</p> <p>“Carbohydrate, by difference” exists and has a defined value.</p>	As expected	Pass

Test case 005: Food details - non existing ID

Test case id: R005

Automated: Yes

Postman Request: Food details - non existing ID

Test designed by: Urša Gorše

Test designed date: 09.10.2022

Priority: Low

(Low/Medium/High)

Test executed by: Urša Gorše

Test execution date: 09.10.2022

Description: Call get food details by providing a food ID that is invalid

Execution status: **Pass**

(Pass/Fail/Not executed)

Preconditions:

Send HTTP request with configuration:

HTTP method: GET

URL: <https://api.nal.usda.gov/fdc/v1/food/32863>

Authorization: x-api-key: DEMO_KEY

Content-type: application/json

Steps:

Step #	Step details	Expected result	Actual result	Execution status
1	Check response code	Response code is 404	As expected	Pass

Please note that these are not all possible test cases. These are just selected examples to show the usage of the GET and POST method, basic authentication and checking response codes.