Projekt REST API Kacper Banasiak 140679

Konspekt projektu: Baza danych albumów muzycznych (od początku w bazie znajduje się 5 albumów).

Dane dotyczące bazy danych są zapisane w formacie JSON.

Format albumów w bazie danych:

Możliwe operacje:

wyświetlanie identyfikatorów albumów, listy albumów (record1, record2 itd.) ->
 METODA GET

```
@app.route('/ListOfRecords', methods=['GET'])
```

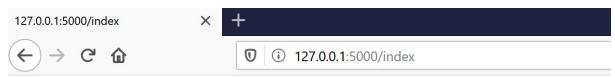
- dodanie nowego identyfikatora albumu z pustymi wartościami pól -> METODA POST
- aktualizacja, zmiana danych dotyczących istniejącego albumu -> METODA PUT
- wyświetlanie szczegółowych informacji o pojedynczym albumie -> METODA GET

@app.route('/records/<string:id>',methods=['GET'])

 usunięcie albumu o podanym identyfikatorze z bazy danych -> METODA DELETE

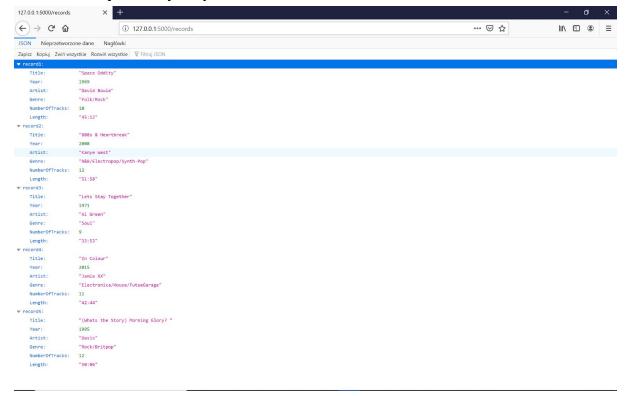
PREZENTACJA DZIAŁANIA (przeglądarka Firefox)

Strona startowa:



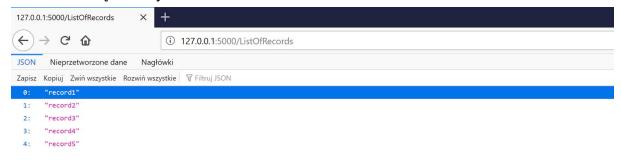
BAZA ALBUMÓW MUZYCZNYCH!

Odwołanie się do całej bazy albumów:

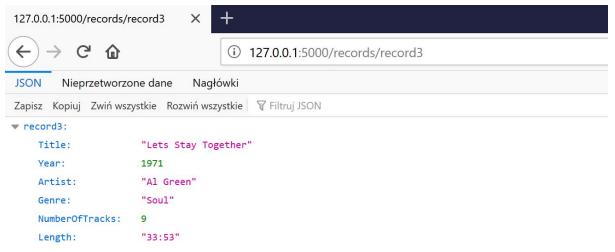




Odwołanie się do listy albumów:



Odwołanie się do poszczególnego albumu:



Błędne odwołanie:



```
| Debug mode: off | Running on http://127.8.8.1:5800/ (Press CTRL+C to quit) | 127.8.8.1 - [18/Jun/2020 14:26:18] "GET / HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:26:18] "GET / HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:27:34] "GET / Index HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:27:35] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:13] "GET / Index HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:13] "GET / Index HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:13] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:13] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:55] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:55] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:32:54] "GET / Favicon.ico HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:29] "GET / Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:29] "GET / Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:29] "GET / Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:29] "GET / Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:29] "GET / Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:42] "GET / Fecords/Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:42] "GET / Fecords/Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:42] "GET / Fecords/Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:37:42] "GET / Fecords/Fecords HTTP/1.1" 200 - | 127.8.8.1 - [19/Jun/2020 14:39:55] "GET / Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Feoords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fecords/Fec
```

PREZENTACJA DZIAŁANIA (klient)

Wyświetlanie listy albumów:

```
×
                                                                                                                                                                                                                                                                       os W
                                                                                                                                                                                                                                                                             mod_name, _Error)

File "C:\Users\banas\AppData\Local\\Programs\Python\Python38-32\lib\runpy.py", line 109

in _get_module_details
_import_(okg_name)

File "C:\Users\banas\OneDrive\Dokumenty\apirestproject\app\client.py", line 1, in <mod
la>
Microsoft Windows [Version 10.0.18362.900]
(c) 2019 Microsoft Corporation. Wszelkie prawa zastrzeżone.
                 rs\banas>cd C:/Users/banas/OneDrive/Dokumenty/apirestproject/app
  :\Users\banas\OneDrive\Dokumenty\apirestproject\app>pwd
pwd' is not recognized as an internal or external command,
perable program or batch file.
                                                                                                                                                                                                                                                                                 import requests
duleNotFoundError: No module named 'requests'
::\Users\banas\OneDrive\Dokumenty\apirestproject\app>ls
'ls' is not recognized as an internal or external commar
operable program or batch file.
                                                                                                                                                                                                                                                                                \Users\banas\OneDrive\Dokumenty\apirestproject\app>pip install requests
                                                                                                                                                                                                                                                                              :\Users\banas\oneDrive\Dokumenty\apirestproject\app>pip install requests
Dilecting requests
Using cached requests-2.23.0-py2.py3-none-any.whl (58 k8)
Dilecting dinac3.>=2.5
Using cached idna-2.9-py2.py3-none-any.whl (58 k8)
Dilecting chordet(4,>=3.0.2)
Using cached chardet(-3.0.4-py2.py3-none-any.whl (133 k8)
Dilecting certifi>=2017.4.17
Using cached chardet(-3.0.4-py2.py3-none-any.whl (157 k8)
Dilecting certifi>=2017.4.17
Using cached certifi>=2017.4.17
Using cached certifi>=2017.4.17
Using cached unlib3-1.25.0,!=1.25.1,<1.26,>=1.21.1
Using cached unlib3-1.25.9-py2.py3-none-any.whl (126 k8)
nstalling collected packages: idna, chardet, certifi, unlib3, requests
uccessfully installed certifi-2020.4.5.2 chardet-3.0.4 idna-2.9 requests-2.23.0 unlib3
1.25.9
  :\Users\banas\OneDrive\Dokumenty\apirestproject\app>dir
Volume in drive C is Local Disk
Volume Serial Number is 2C89-ED9D
Directory of C:\Users\banas\OneDrive\Dokumenty\apirestproject\app
99.06.2020 17:44 <DIR>
99.06.2020 17:44 <DIR>
99.06.2020 18:05 <DIR>
99.06.2020 17:40 
88.06.2020 19:59 <DIR>
99.06.2020 17:44 
88.06.2020 19:59 <DIR>
3 511e(s)
                                                                               ...idea
2 528 client.py
108 routes.py
16 484 __init__.py
__pycache__
                                                                                                                                                                                                                                                                              :\Users\banas\OneDrive\Dokumenty\apirestproject\app>python -m client.py
Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
                                                         <DIR>
                                        3 File(s) 19 120 bytes
4 Dir(s) 22 511 435 776 bytes free
  :\Users\banas\OneDrive\Dokumenty\apirestproject\app>_init_.py
raceback (most recent call last):
File "c:\Users\banas\OneDrive\Dokumenty\apirestproject\app\_init_.py", line 4, in <m
                                                                                                                                                                                                                                                                            Response [200]>
ist of records:
Lumber of record:
               om flask import Flask, jsonify, abort, request, make_response, Response
C:\Users\banas\OneDrive\Dokumenty\apirestproject\app>python __init__.py

* Serving Flask app "__init__" (lazy loading)

* Serving Flask app "__init__" (lazy loading)

* Environment: production

MARNING: This is a development server. Do not use it in a production deployment.

Use a production NGGI server instead.

* Debug mode: off

* Running on http://127.0.0.1:50000/ (Press CTRL+C to quit)

127.0.0.1 - - [10/Jun/2020 14:59:54] "@[37mGET /ListOfRecords HTTP/1.1@[0m" 200 -
                                                                                                                                                                                                                                                                              Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
                                                                                                                                                                                                                                                                              elect function:
```

Dodanie nowego identyfikatora albumu:

```
Wiersz polecenia - python -m client.py
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Using cached idna-2-9-py2-py3-none-any.whl (58 k8)

collecting chardet<4,>=3.0.2

Using cached thanel<5-3.0.4-py2.py3-none-any.whl (133 k8)

collecting cached chardet<-3.0.4-py2.py3-none-any.whl (133 k8)

collecting cached chardet<-3.0.4-py2.py3-none-any.whl (157 k8)

collecting unillib31-1.25.9, j=1.25.1, f1.26, j=1.21.1

Using cached unillib3-1.25.9-py2.py3-none-any.whl (126 k8)

installing cached unillib3-1.25.9-py2.py3-none-any.whl (126 k8)

installing collected packages: idna, chardet, certifi, unillib3, requests

uccessfully installed certifi-2020.4.5.2 chardet<-3.0.4 idna-2.9 requests-2.23.0 unilib3
icrosoft Windows [Version 10.0.18362.900]
c) 2019 Microsoft Corporation. Wszelkie prawa zastrzeżone.
 :\Users\banas>cd C:/Users/banas/OneDrive/Dokumenty/apirestproject/app
  \Users\banas\OneDrive\Dokumenty\apirestproject\app>pwd
wd' is not recognized as an internal or external command,
werable program or batch file.
 :\Users\banas\OneDrive\Dokumenty\apirestproject\app>ls
ls' is not recognized as an internal or external comman
perable program or batch file.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            :\Users\banas\OneDrive\Dokumenty\apirestproject\app>python -m client.py
Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>dir
Volume in drive C is local Disk
Volume Serial Number is 2C89-ED9D
Directory of C:\Users\banas\OneDrive\Dokumenty\apirestproject\app
9.06.2020 17:44 ODIR>
9.06.2020 17:44 ODIR>
9.06.2020 18:05 ODIR>
9.06.2020 18:05 ODIR>
9.06.2020 19:99 108 routes.py
8.06.2020 19:59 108 routes.py
8.06.2020 19:59 ODIR>
9.06.2020 19:50 ODIR>
9.06.2
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>__init__,py
raceback (most recent call last):
File "C:\Users\banas\OneDrive\Dokumenty\apirestproject\app\__init__,py", line 4, in <m
dule>
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
 Jule>
from flask import Flask, jsonify, abort, request, make_response, Response
oduleNotFoundError: No module named 'flask'
  \Users\banas\OneDrive\Dokumenty\apirestproject\app>python _init_.py
Serving Flask app "_init_" (lazy loading)
Environment: production
MARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
Debug mode: off
Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
7.0.0.1 - [10/Jun/2020 14:59:54] "@[37mGET /\istOffRecords HTTP/1.1@[0m" 200 -
7.0.0.1 - [10/Jun/2020 15:03:11] "@[37mPOST /records/add HTTP/1.1@[0m" 201 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                           elect function: 2
nput id of record to create: record6
Response [201]>
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
                                                                                                                                                                                                                                                                                                                                                                                                                                                            elect function:
```

Aktualizacja danych dotyczących albumu:

```
Wiersz polecenia - python -m client.py
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :\Users\banas>cd C:/Users/banas/OneDrive/Dokumenty/apirestproject/app
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>pwd
pwd' is not recognized as an internal or external command,
operable program or batch file.
::\Users\banas\OneDrive\Dokumenty\apirestproject\app>ls
'ls' is not recognized as an internal or external commar
operable program or batch file.
                                                                                                                                                                                                                                                     Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
 :\Users\banas\OneDrive\Dokumenty\apirestproject\app>dir
Volume in drive C is Local Disk
Volume Serial Number is 2C89-ED9D
                                                                                                                                                                                                                                                     elect function: 2
nput id of record to create: record6
Response [201]>
 Directory of C:\Users\banas\OneDrive\Dokumenty\apirestproject\app
Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
 :\Users\banas\OneDrive\Dokumenty\apirestproject\app>__init__.py
racebak (most recent call last:
file "c:\Users\banas\OneDrive\Dokumenty\apirestproject\app\__init__.py", line 4, in <m
                                                                                                                                                                                                                                                 Select function: 3
Update record data
Input id of record to update: record6
Record's title: Raz
Year: 2
Artist: Trzy
Genre: Cztery
Number of tracks: 5
Length of the album:6
<Response [201]>
   ule>
from flask import Flask, jsonify, abort, request, make_response, Response
duleNotFoundError: No module named 'flask'
  \Users\banas\OneDrive\Dokumenty\apirestproject\app>python __init__.py\
Serving Flask app "__init__" (lazy loading)
Environment: production
MANING: This is a development server. Do not use it in a production deployment.
Use a production MSGI server instead.
Poblug mode: off
Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
27.0.0.1 - [10/Jun/2020 15:93:11] "@[37mGGT /ListOfRecords HTTP/1.10[0m" 200 -
27.0.0.1 - [10/Jun/2020 15:03:11] "@[37mGGT /ListOfRecords ATTP/1.10[0m" 201 -
27.0.0.1 - [10/Jun/2020 15:03:11] "@[37mPGT /cecords/acdd HTTP/1.10[0m" 201 -
27.0.0.1 - [10/Jun/2020 15:04:25] "@[37mPGT /cecords/record6 HTTP/1.10[0m" 201 -
                                                                                                                                                                                                                                                    Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
                                                                                                                                                                                                                                                     elect function:
```

Wyświetlenie informacji na temat poszczególnego albumu:

```
X Wiersz polecenia - python -m client.p
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
icrosoft Windows [Version 10.0.18362.900]
c) 2019 Microsoft Corporation. Wszelkie prawa zastrzeżone.
:\Users\banas>cd C:/Users/banas/OneDrive/Dokumenty/apirestproject/app
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>pwd
owd' is not recognized as an internal or external command,
perable program or batch file.
                                                                                                                                                                                                                                           Select function: 3
Update record data
Input id of record to update: record6
Record's title: Raz
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>ls
ls' is not recognized as an internal or external commar
perable program or batch file.
                                                                                                                                                                                                                                            Record's title: Raz
Year: 2
Artist: Trzy
Benre: Cztery
Humber of tracks: 5
Length of the album:6
(Response [201]>
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>dir
Volume in drive C is local Disk
Volume Serial Number is 2C89-ED9D
Directory of C:\Users\banas\OneDrive\Dokumenty\apirestproject\app
:\Users\banas\OneDrive\Dokumenty\apirestproject\app>__init__,py
raceback (most recent call last):
File "C:\Users\banas\OneDrive\Dokumenty\apirestproject\app\__init__,py", line 4, in <m
dule>
                                                                                                                                                                                                                                           Select function: 4
Get record data
Input record id: record6
<Response [200]>
dule>
from flask import Flask, jsonify, abort, request, make_response, Response
oduleNotFoundError: No module named 'flask'
                                                                                                                                                                                                                                           Info about record: record6
Title : Raz
Year : 2
Artist : Trzy
Genre : Cztery
NumberOfTracks : 5
Length : 6
  Users\bana\OneDrive\Dokumenty\apricatesproject\app>python _init_.py

Serving Flask app "_init_" (lazy loading)

Environment: production

MRMRING: This is a development server. Do not use it in a production deployment.

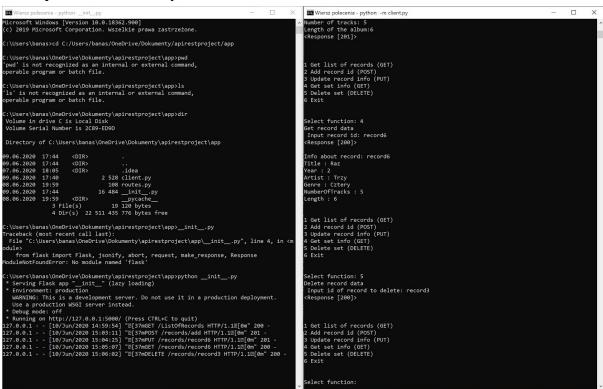
Use a production WSGI server instead.

Debug mode: orf

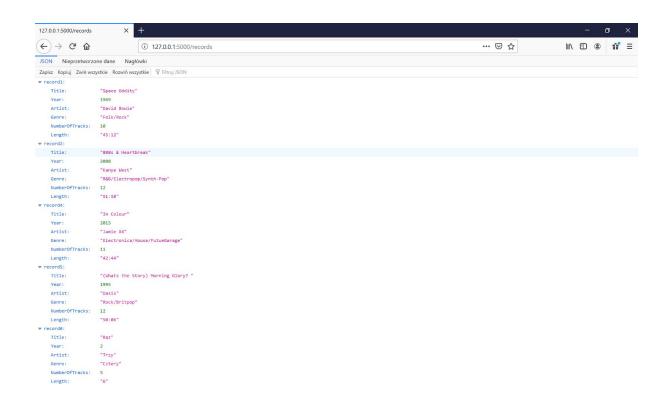
Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)

7.0.0.1 - [10/Jun/2020 14:59:54] "@[37mGET /ListOfRecords HTTP/1.1@[6m" 200 -
7.0.0.1 - [10/Jun/2020 15:03:11] "@[37mDET /records/add HTTP/1.1@[6m" 201 -
7.0.0.1 - [10/Jun/2020 15:04:25] "@[37mDET /records/record6 HTTP/1.1@[6m" 201 -
7.0.0.1 - [10/Jun/2020 15:05:07] "@[37mDET /records/record6 HTTP/1.1@[6m" 200 -
                                                                                                                                                                                                                                              Get list of records (GET)
Add record id (POST)
Update record info (PUT)
Get set info (GET)
Delete set (DELETE)
Exit
                                                                                                                                                                                                                                              elect function: _
```

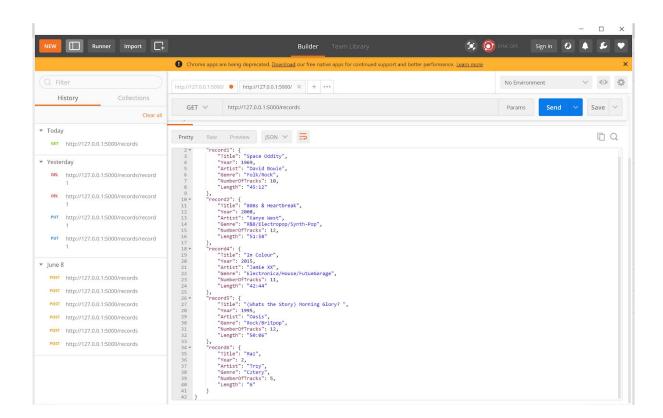
Usunięcie albumu z bazy:

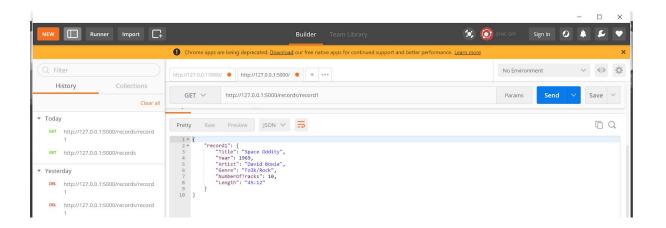


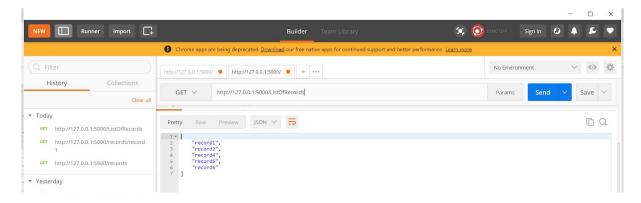
Postać końcowa bazy albumów:

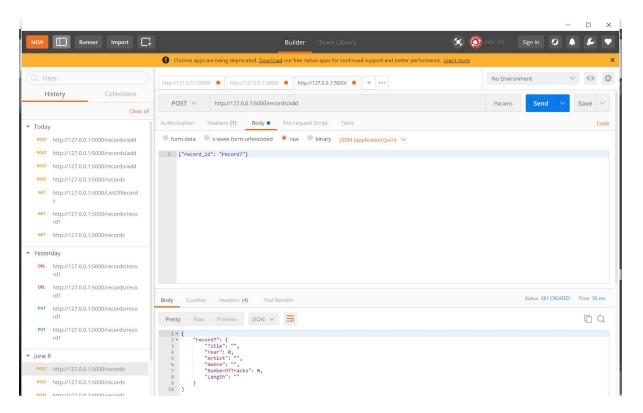


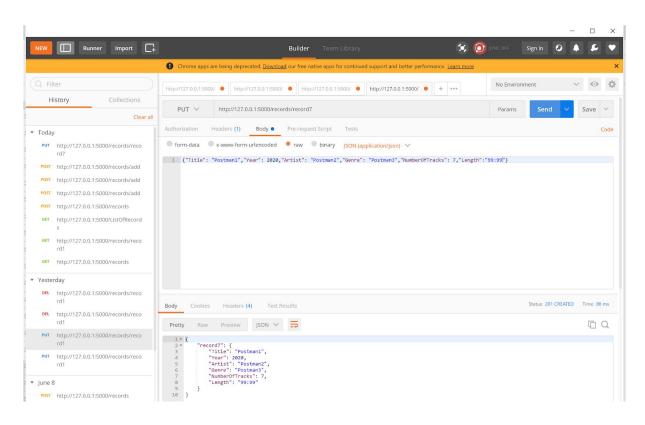
TEST DZIAŁANIA (Postman)

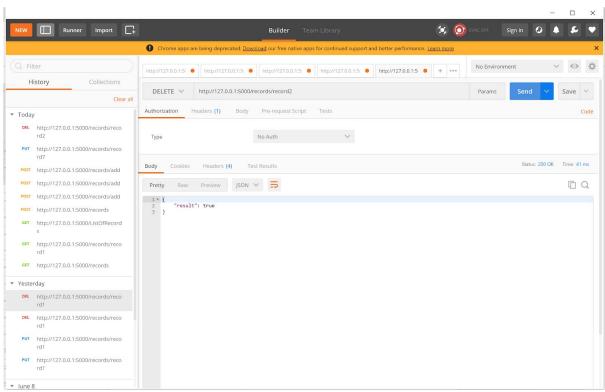




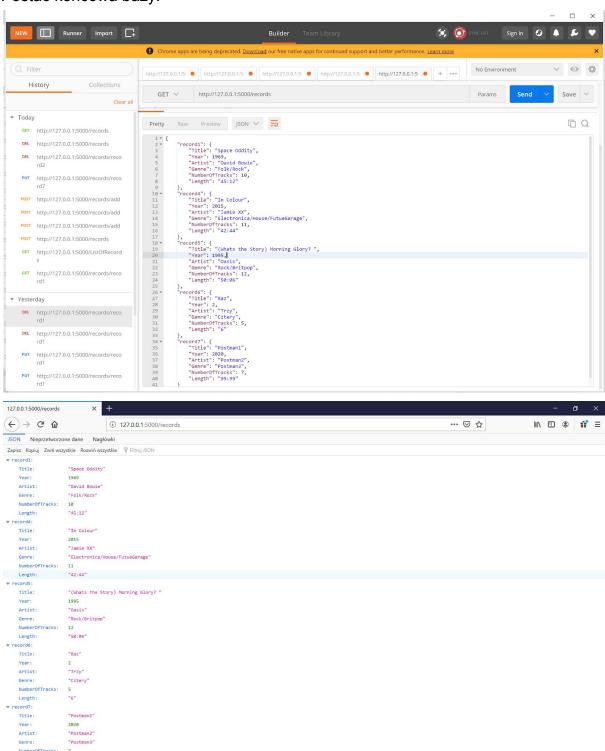








Postać końcowa bazy:



```
'ls' is not recognized as an internal or external command,
operable program or batch file.
C:\Users\banas\OneDrive\Dokumenty\apirestproject\app>dir
Volume in drive C is Local Disk
Volume Serial Number is 2C89-ED9D
Directory of C:\Users\banas\OneDrive\Dokumenty\apirestproject\app
09.06.2020 17:44
                     <DIR>
09.06.2020 17:44
                     <DIR>
                                    .idea
07.06.2020 18:05
                     <DIR>
09.06.2020 17:40
                              2 528 client.py
08.06.2020 19:59
                                108 routes.py
09.06.2020 17:44
                             16 484 __init__.py
08.06.2020 19:59
                     <DIR>
                                      _pycache_
               3 File(s)
                                 19 120 bytes
               4 Dir(s) 22 511 435 776 bytes free
C:\Users\banas\OneDrive\Dokumenty\apirestproject\app>__init__.py
Traceback (most recent call last):
 File "C:\Users\banas\OneDrive\Dokumenty\apirestproject\app\__init__.py", line 4, in <m
odule>
from flask import Flask, jsonify, abort, request, make_response, Response
ModuleNotFoundError: No module named 'flask'
C:\Users\banas\OneDrive\Dokumenty\apirestproject\app>python __init__.py
* Serving Flask app "__init__" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
                                     "2[37mGET /ListOfRecords HTTP/1.12[0m" 200 -
127.0.0.1 - - [10/Jun/2020 14:59:54]
127.0.0.1 - - [10/Jun/2020 15:03:11] "図[37mPOST /records/add HTTP/1.1図[0m" 201 -
127.0.0.1 - - [10/Jun/2020 15:04:25] "᠒[37mPUT /records/record6 HTTP/1.1᠒[0m" 201 -
127.0.0.1 - - [10/Jun/2020 15:05:07] "2[37mGET /records/record6 HTTP/1.12[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:06:02] "D[37mDELETE /records/record3 HTTP/1.1D[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:06:48] "☑[37mGET /records HTTP/1.1☑[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:09:30] "🛮 [37mGET /records HTTP/1.1🗷 [0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:11:28] "@[37mGET /records/record1 HTTP/1.1@[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:12:01] "D[37mGET /ListOfRecords HTTP/1.1D[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:12:53] "᠒[31m᠒[1mPOST /records HTTP/1.1᠒[0m" 405 -
127.0.0.1 - - [10/Jun/2020 15:13:18] "🛮 [37mPOST /records/add HTTP/1.1🗷 [0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:13:26] "図[37mPOST /records/add HTTP/1.1図[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:14:43]
                                     "2[37mPOST /records/add HTTP/1.12[0m" 201 -
                                     "D[37mPUT /records/record7 HTTP/1.1D[0m" 201
127.0.0.1 - - [10/Jun/2020 15:15:57]
                                     "D[37mDELETE /records/record2 HTTP/1.1D[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:16:32]
127.0.0.1 - - [10/Jun/2020 15:16:53] "@[31m@[1mDELETE /records HTTP/1.1@[0m" 405 -
127.0.0.1 - - [10/Jun/2020 15:16:58] "D[37mGET /records HTTP/1.1D[0m" 200 -
127.0.0.1 - - [10/Jun/2020 15:17:54] "[37mGET /records HTTP/1.11[0m" 200 -
```

П

X

Postać końcowa przechwycona w programie Wireshark

