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RESTful Client

Prerequisites:

It is assumed that you will install and take a look at the following packages in python before heading to activities:

- requests (http://docs.python-requests.org/en/master/)

In this lab, you are going to programmatically send requests to the RESTful service created in the previous lab. So you need to download and run the following script before doing the activities:

https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week6_Flask2/activity_3.py (https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week6_Flask2/activity_3.py)

Do not forget to put the books dataset (https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week6_Flask2/Books.csv) beside the script.

Activity-1:

Description : Programmatically get and print top-5 books ordered by 'Date_of_Publication' in an ascending order.

Steps :

1. Send a GET request (http://docs.python-requests.org/en/master/user/quickstart/#passing-parameters-in-urls) (URL: " http://127.0.0.1:5000/books (http://127.0.0.1:5000/books) ") and get the books ordered by 'Date_of_Publication' in an ascending order
2. Print the status code (HTTP response code) of response object
3. Convert the content of the response object to a python dictionary (https://stackoverflow.com/questions/6386308/http-requests-and-json-parsing-in-python#17517598)
4. Print top 5 books

</> (https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week7_Client/activity_1.py)

Activity-2:

Description : Programmatically add a new book to the dataset

Steps :

1. Create a python dictionary with the expected keys and custom values.

```
{
  "Date_of_Publication": 0,
  "Publisher": "string",
  "Author": "string",
  "Title": "string",
  "Flickr_URL": "string",
  "Identifier": 0,
  "Place_of_Publication": "string"
}
```

2. Send a POST request (http://docs.python-requests.org/en/master/user/quickstart/#more-complicated-post-requests) (URL: " http://127.0.0.1:5000/books (http://127.0.0.1:5000/books) ") and use send the book as the request payload
3. Print the status code and the message returned by the service

</> (https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week7_Client/activity_2.py)

Activity-3:

Description : Programmatically update the book which its ID is 206 by changing the author name to 'Nobody'

Steps :

1. Send a get request to get the book (http://docs.python-requests.org/en/master/user/quickstart/#passing-parameters-in-urls) with id=206 (URL: " http://127.0.0.1:5000/books/206 (http://127.0.0.1:5000/books) "), and print the book
2. Update the author to 'Nobody'
3. Send a PUT request to update the book (http://docs.python-requests.org/en/master/user/quickstart/#make-a-request)
4. Print the status code and the message returned by the service
5. Once again, send a get request to get the book with id=206 (URL: " http://127.0.0.1:5000/books/206 (http://127.0.0.1:5000/books) ") and print the returned book to see if the book has been successfully updated

</> (https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week7_Client/activity_3.py)

Activity-4:

Description : Programmatically delete the book which its ID is 206

Steps :

1. Send a get request (http://docs.python-requests.org/en/master/user/quickstart/#passing-parameters-in-urls) to get the book with id=206, and print the book
2. Send a delete request (http://docs.python-requests.org/en/master/user/quickstart/#make-a-request) (URL: " http://127.0.0.1:5000/books/206 (http://127.0.0.1:5000/books) ") to remove the book with id=206
3. Print the status code and the message returned by the service
4. Once again, send a get request to get the book with id=206 to see if the book doesn't exist

(https://github.com/mysilver/COMP9321-Data-Services/blob/master/Week7_Client/activity_4.py)

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