Day - 37

**API Post Requests & Headers**

**Habit Tracking Project**

HTTP Requests, Advanced Authentication using an HTTP Header, Pixela

**37.1 sign-Up to pixela from Python**

* Six-step process <https://pixe.la/>

**import** requests

pixela\_end\_pt = "https://pixe.la/v1/users"

user\_params = {

    "token":"13739trr19trr2022pihi31",

    "username":"pufter",

    "agreeTermsOfService":"yes",

    "notMinor":"yes"

    }

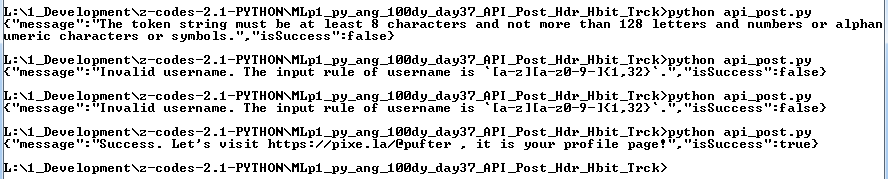
#*Sending POST req for an Account creation*

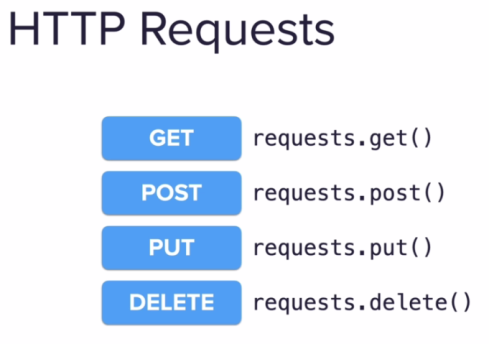
post\_respns = requests**.post**(url=pixela\_end\_pt , json=user\_params)

#*Print the rsponse message*

**print**(post\_respns**.**text)

#*python api\_post.py*





**37.2 Formatting datetime** strftime()

|  |  |
| --- | --- |
| #*Formatted datetime*  **from** datetime **import** datetime  #*y give 12, 13, 20, 22 ets Y gives 2012, 2013, 2020, 2022*  tIMe = datetime**.now**()  now\_time = tIMe**.strftime**("%Y%m%d")  **print**(now\_time)  any\_date\_time = **datetime**(year=1956, month=7, day=22)**.strftime**("%Y%m%d")  **print**(any\_date\_time)  pix\_data = {      #*date: yyyymmdd*      #*"date":tIMe.strftime("%Y%m%d"),*      "date":now\_time,      "quantity":"15.0"  }  add\_pix\_\_endpoint = f"{graph\_endpoint}/testgraph1"  #*add\_pix\_response = requests.post(url = add\_pix\_\_endpoint, json= pix\_data, headers= heADErs)*  #*print(add\_pix\_response.text)* | **from** datetime **import** datetime  now = datetime**.now**() #*current date and time*  year = now**.strftime**("%Y")  **print**("year:", year)  month = now**.strftime**("%m")  **print**("month:", month)  day = now**.strftime**("%d")  **print**("day:", day)  time = now**.strftime**("%H:%M:%S")  **print**("time:", time)  date\_time = now**.strftime**("%m/%d/%Y, %H:%M:%S")  **print**("date and time:",date\_time) |

POST:

add\_pix\_response = requests.**post**(**url** = add\_pix\_\_endpoint, **json**= pix\_data, **headers**= heADErs)

PUT:

edit\_pix\_response = requests.**put**(**url** = edit\_pix\_endpoint, **json**= edit\_pix\_data, **headers**= heADErs)

DELETE:

delete\_pix\_response = requests.**delete**(**url** = edit\_pix\_endpoint, **headers**= heADErs)

All code at once

**import** requests

#*TODO 1. Create your user account*

"""

Call /v1/users API by HTTP POST.

$ curl -X POST https://pixe.la/v1/users -d '{"token":"thisissecret", "username":"a-know", "agreeTermsOfService":"yes", "notMinor":"yes"}'

{"message":"Success.","isSuccess":true}

"""

pixela\_end\_pt = "https://pixe.la/v1/users"

USER\_NAME = "pufter"

TOKEN = "739trr19trr2022pihi"

GRAPH\_NAME = "testgraph1"

user\_params = {

    "token":USER\_NAME,

    "username":TOKEN,

    "agreeTermsOfService":"yes",

    "notMinor":"yes"

    }

        #*Sending POST req for an Account creation*

#*post\_respns = requests.post(url=pixela\_end\_pt , json=user\_params)*

        #*Print the rsponse message*

#*print(post\_respns.text)*

#*TODO 2. Create a graph definition*

"""

Call /v1/users/<username>/graphs by HTTP POST.

$ curl -X POST https://pixe.la/v1/users/a-know/graphs -H 'X-USER-TOKEN:thisissecret' -d '{"id":"test-graph","name":"graph-name","unit":"commit","type":"int","color":"shibafu"}'

{"message":"Success.","isSuccess":true}

"""

#*graph endpoint*

graph\_endpoint = f"{pixela\_end\_pt}/{USER\_NAME}/graphs"

graph\_config = {

    "id" : "testgraph1",

    "name" : "Running in Morning",

    "unit" : "km",

    "type" : "float",

    "color" : "sora"

}

"""

garph\_response = requests.post(url = graph\_endpoint, json= graph\_config)

print(garph\_response.text)

"""

#*above is not  gonna work becuse we have to provide authentication*

#*which is done by header (http header), using the "headers= " kewargs*

heADErs = {

    "X-USER-TOKEN" : TOKEN

}

#*garph\_response = requests.post(url = graph\_endpoint, json= graph\_config, headers= heADErs)*

#*print(garph\_response.text)*

#*TODO 3. goto the HTML page: https://pixe.la/v1/users/pufter/graphs/testgraph1.html*

#*Only shows the graph : https://pixe.la/v1/users/pufter/graphs/testgraph1*

"""

Get the graph!

Browse https://pixe.la/v1/users/a-know/graphs/test-graph ! This is also /v1/users/<username>/graphs/<graphID> API.

"""

#*TODO 4. Post value to the graph: Challenge Add a Pixel to the Habit Tracker using a Post Request*

"""

Call /v1/users/<username>/graphs/<graphID> by HTTP POST.

$ curl -X POST https://pixe.la/v1/users/a-know/graphs/test-graph -H 'X-USER-TOKEN:thisissecret' -d '{"date":"20180915","quantity":"5"}'

{"message":"Success.","isSuccess":true}

"""

#*Formatted datetime*

**from** datetime **import** datetime

#*y give 12, 13, 20, 22 ets Y gives 2012, 2013, 2020, 2022*

tIMe = datetime**.now**()

now\_time = tIMe**.strftime**("%Y%m%d")

**print**(now\_time)

any\_date\_time = **datetime**(year=2022, month=1, day=18)**.strftime**("%Y%m%d")

**print**(any\_date\_time)

pix\_data = {

    #*date: yyyymmdd*

    #*"date":tIMe.strftime("%Y%m%d"),*

    "date":now\_time,

    "quantity":"15.0"

}

add\_pix\_\_endpoint = f"{graph\_endpoint}/testgraph1"

#*add\_pix\_response = requests.post(url = add\_pix\_\_endpoint, json= pix\_data, headers= heADErs)*

#*print(add\_pix\_response.text)*

#*TODO 5. PUT and DELETE to update and delete pixels*

edit\_pix\_data = {

    "quantity":"1.0"

}

edit\_pix\_endpoint = f"https://pixe.la/v1/users/{USER\_NAME}/graphs/{GRAPH\_NAME}/{any\_date\_time}"

#*edit\_pix\_response = requests.put(url = edit\_pix\_endpoint, json= edit\_pix\_data, headers= heADErs)*

#*print(edit\_pix\_response.text)*

#*TODO 6. DELETE  pixels*

delete\_pix\_response = requests**.delete**(url = edit\_pix\_endpoint, headers= heADErs)

**print**(delete\_pix\_response**.**text)

#*python api\_post.py*

Instructors Solution

**import** requests

**from** datetime **import** datetime

USERNAME = "YOUR USERNAME"

TOKEN = "YOUR SELF GENERATED TOKEN"

GRAPH\_ID = "YOUR GRAPH ID"

pixela\_endpoint = "https://pixe.la/v1/users"

user\_params = {

    "token": TOKEN,

    "username": USERNAME,

    "agreeTermsOfService": "yes",

    "notMinor": "yes",

}

#*# POST*

#*response = requests.post(url=pixela\_endpoint, json=user\_params)*

#*print(response.text)*

graph\_endpoint = f"{pixela\_endpoint}/{USERNAME}/graphs"

graph\_config = {

    "id": GRAPH\_ID,

    "name": "Cycling Graph",

    "unit": "Km",

    "type": "float",

    "color": "ajisai"

}

headers = {

    "X-USER-TOKEN": TOKEN

}

#*response = requests.post(url=graph\_endpoint, json=graph\_config, headers=headers)*

#*print(response.text)*

pixel\_creation\_endpoint = f"{pixela\_endpoint}/{USERNAME}/graphs/{GRAPH\_ID}"

today = datetime**.now**()

#*print(today.strftime("%Y%m%d"))*

pixel\_data = {

    "date": today**.strftime**("%Y%m%d"),

    "quantity": **input**("How many kilometers did you cycle today? "),

}

response = requests**.post**(url=pixel\_creation\_endpoint, json=pixel\_data, headers=headers)

**print**(response**.**text)

update\_endpoint = f"{pixela\_endpoint}/{USERNAME}/graphs/{GRAPH\_ID}/{today**.strftime**('%Y%m%d')}"

new\_pixel\_data = {

    "quantity": "4.5"

}

#*# PUT*

#*response = requests.put(url=update\_endpoint, json=new\_pixel\_data, headers=headers)*

#*print(response.text)*

delete\_endpoint = f"{pixela\_endpoint}/{USERNAME}/graphs/{GRAPH\_ID}/{today**.strftime**('%Y%m%d')}"

#*# DELETE*

#*response = requests.delete(url=delete\_endpoint, headers=headers)*

#*print(response.text)*