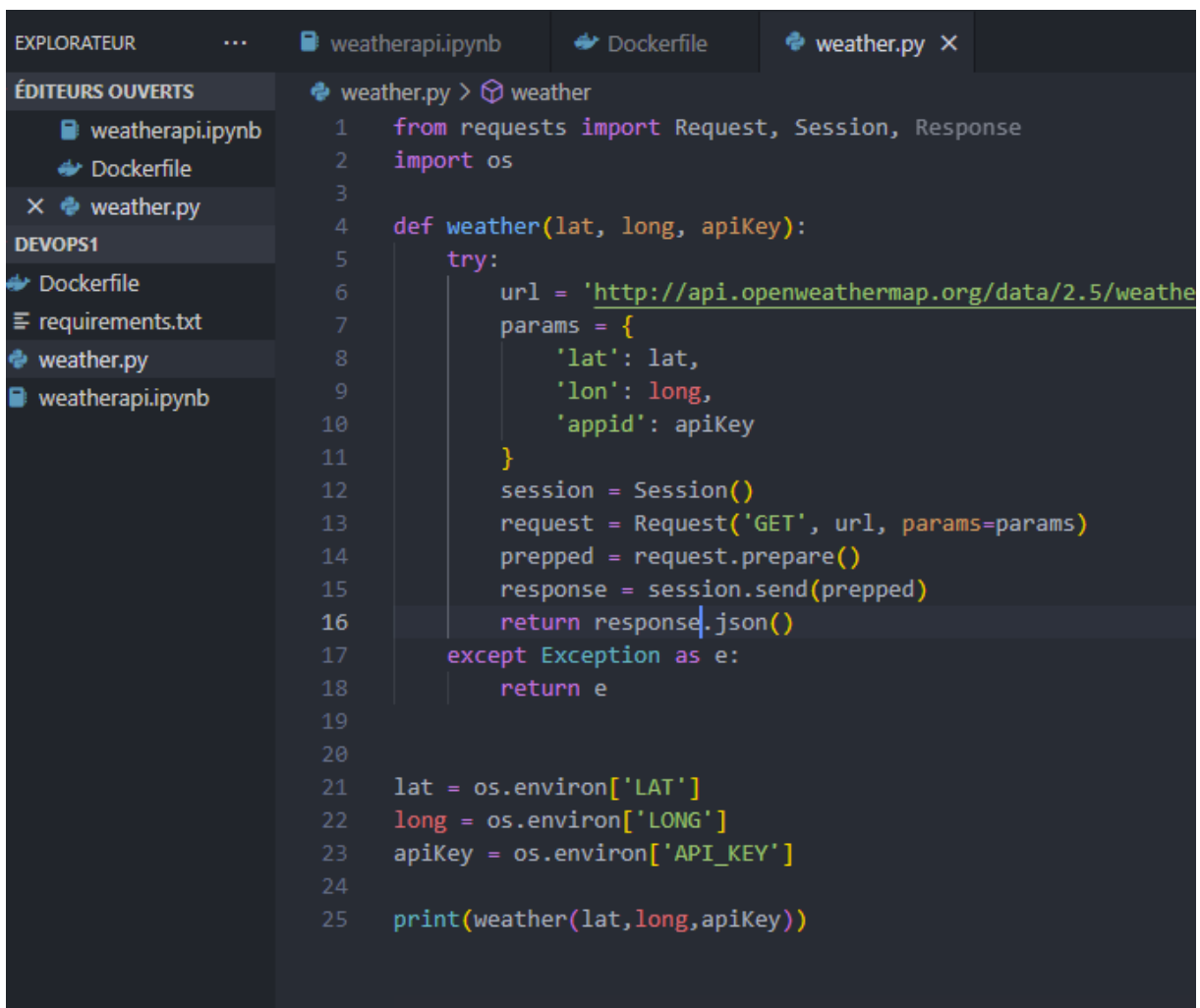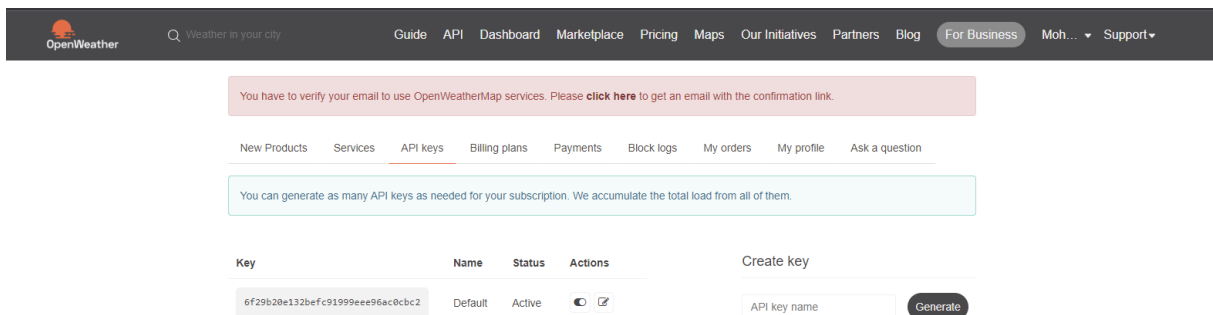# Rapport DevOPS TP 1

Partie 1 :

A l'aide de l'API openWeather, on peut récupérer les données sur la météo en fonction de la latitude et de la longitude.


```python
from requests import Request, Session, Response
import os

def weather(lat, long, apiKey):
    try:
        url = 'http://api.openweathermap.org/data/2.5/weathe
        params = {
            'lat': lat,
            'lon': long,
            'appid': apiKey
        }
        session = Session()
        request = Request('GET', url, params=params)
        prepped = request.prepare()
        response = session.send(prepped)
        return response.json()
    except Exception as e:
        return e


lat = os.environ['LAT']
long = os.environ['LONG']
apiKey = os.environ['API_KEY']

print(weather(lat,long,apiKey))
```

```
weatherapi.ipynb          Dockerfile  ×          weather.py

Dockerfile > ...
  1     FROM python:3.8
  2
  3     RUN apt update
  4     RUN apt install python3
  5
  6     # set the working directory in the container
  7     WORKDIR C:/Users/zmoha/OneDrive/Bureau/devops1
  8
  9     COPY weather.py ./
 10
 11     # copy the dependencies file to the working directory
 12     COPY requirements.txt .
 13
 14     # install dependencies
 15     RUN pip install -r requirements.txt
 16
 17     # command to run on container start
 18     CMD [ "python3", "./weather.py" ]
```

Partie 2 :

Voici l'ensemble des commandes utilisés :

Pipreqs « path »

Docker build -t devops1

Docker run –env LAT= « xxx » --env LONG= « xxx » --env API_KEY= « xxx »

Docker image

Docker tag « xxx » devops1

Docker login -u mormox

Docker tag « xxx » mormox/meteo :devops1

Docker push mormox/meteo :devops1

```
(base) PS C:\WINDOWS\system32> cd..
(base) PS C:\WINDOWS> cd..
(base) PS C:\> cd users
(base) PS C:\users> cd zmoha
(base) PS C:\users\zmoha> cd onedrive
(base) PS C:\users\zmoha\onedrive> cd bureau
(base) PS C:\users\zmoha\onedrive\bureau> cd devops1
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker build -t TP1 .
invalid argument "TP1" for "-t, --tag" flag: invalid reference format: repository name must be lowercase
See 'docker build --help'.
(base) PS C:\users\zmoha\onedrive\bureau\devops1> pip install pipreqs
Requirement already satisfied: pipreqs in c:\users\zmoha\anaconda3\lib\site-packages (0.4.11)
Requirement already satisfied: docopt in c:\users\zmoha\anaconda3\lib\site-packages (from pipreqs) (0.6.2)
Requirement already satisfied: yarg in c:\users\zmoha\anaconda3\lib\site-packages (from pipreqs) (0.1.9)
Requirement already satisfied: requests in c:\users\zmoha\anaconda3\lib\site-packages (from yarg->pipreqs) (2.26.0)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\zmoha\anaconda3\lib\site-packages (from requests->y
arg->pipreqs) (2.0.4)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\zmoha\anaconda3\lib\site-packages (from requests->yarg->pi
preqs) (2021.10.8)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\zmoha\anaconda3\lib\site-packages (from requests->yarg-
>pipreqs) (1.26.7)
Requirement already satisfied: idna<4,>=2.5 in c:\users\zmoha\anaconda3\lib\site-packages (from requests->yarg->pipreqs)
 (2.10)
WARNING: There was an error checking the latest version of pip.
(base) PS C:\users\zmoha\onedrive\bureau\devops1> pipreqs C:/Users/zmoha/OneDrive/Bureau/devops1
INFO: Successfully saved requirements file in C:/Users/zmoha/OneDrive/Bureau/devops1\requirements.txt
```

```
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker build -t devops1 .
[+] Building 6.1s (12/12) FINISHED
 => [internal] load build definition from Dockerfile                                    0.1s
 => => transferring dockerfile: 434B                                                    0.0s
 => [internal] load .dockerignore                                                       0.1s
 => => transferring context: 2B                                                         0.0s
 => [internal] load metadata for docker.io/library/python:3.8                           0.8s
 => [1/7] FROM docker.io/library/python:3.8@sha256:1fbd81716d6d8d6081b11b058894533e36c93abd10d91560ac8011a27ca139  0.0s
 => [internal] load build context                                                       0.0s
 => => transferring context: 691B                                                       0.0s
 => CACHED [2/7] RUN apt update                                                         0.0s
 => CACHED [3/7] RUN apt install python3                                                0.0s
 => CACHED [4/7] WORKDIR C:/Users/zmoha/OneDrive/Bureau/devops1                         0.0s
 => [5/7] COPY weather.py ./                                                            0.1s
 => [6/7] COPY requirements.txt .                                                       0.1s
 => [7/7] RUN pip install -r requirements.txt                                           4.4s
 => exporting to image                                                                  0.4s
 => => exporting layers                                                                 0.3s
 => => writing image sha256:64dbd9b7986299021d2c9a97c7a4c63890fb92d252532597f0f3bda3f44eebd6  0.0s
 => => naming to docker.io/library/devops1                                              0.0s
```

```
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker run --env LAT="5.902785" --env LONG="102.754175" --env API_KEY="6f29b20e132befc91999eee96ac0cbc2" devops1
{'coord': {'lon': 102.7542, 'lat': 5.9028}, 'weather': [{'id': 804, 'main': 'Clouds', 'description': 'overcast clouds', 'icon': '04n'}], 'base': 'stations', 'main': {'temp': 300.95, 'feels_like': 303.43, 'temp_min': 300.95, 'temp_max': 300.95, 'pressure': 1008, 'humidity
': 70, 'sea_level': 1008, 'grnd_level': 981}, 'visibility': 10000, 'wind': {'speed': 1.85, 'deg': 75, 'gust': 1.83}, 'clouds': {'all': 87}, 'dt': 1654258679, 'sys': {'country': 'MY', 'sunrise': 1654210435, 'sunset': 1654255233}, 'timezone': 28800, 'id': 1736405, 'name': '
Jertih', 'cod': 200}
```

```
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker images
REPOSITORY    TAG        IMAGE ID       CREATED         SIZE
devops1       latest     64dbd9b79862   9 minutes ago   939MB
tp1           latest     31bd41dd63f3   3 hours ago     939MB
test          latest     4dcd4e6a936f   3 hours ago     939MB
<none>        <none>     58f72840880e   3 hours ago     921MB
alpine/git    latest     241890ad72b1   2 weeks ago     38.2MB
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker tag 64dbd9b79862 devops1
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker login -u mormox
Password:
Login Succeeded
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
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An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker tag 64dbd9b79862 devops1/mormox
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker tag 64dbd9b79862 devops1/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
An image does not exist locally with the tag: mormox/meteo
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker tag 64dbd9b79862 mormox/meteo:devops1
(base) PS C:\users\zmoha\onedrive\bureau\devops1> docker push mormox/meteo:devops1
The push refers to repository [docker.io/mormox/meteo]
c627ac4f915d: Pushed
de532ed9fb1b: Pushed
ef4a7a6f0901: Pushed
9923b77d5674: Pushed
9351813165cb: Pushed
8329e5740047: Pushed
be869761d95b: Mounted from library/python
a019d1de6299: Mounted from library/python
fecf15812fff: Mounted from library/python
13b045a1dfd2: Mounted from library/python
2fbabeba902e: Mounted from library/python
ee509ed6e976: Mounted from library/python
9177197c67d0: Mounted from library/python
7dbadf2b9bd8: Mounted from library/python
e7597c345c2e: Mounted from library/python
devops1: digest: sha256:04b83391deba073a0422bbd875d2e863c228407cf93a6238ac6c10f96a28c106 size: 3470
(base) PS C:\users\zmoha\onedrive\bureau\devops1>
```

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Images on disk

8 images · Total size: 1.01 GB · IN USE · UNUSED · Clean up...

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NAME ↑	TAG	IMAGE ID	CREATED	SIZE
<none>	<none>	58f72840880e	about 3 hours ago	921.49 MB
alpine/git IN USE	latest	241890ad72b1	14 days ago	38.23 MB
devops1 IN USE	latest	64dbd9b79862	21 minutes ago	939.33 MB
devops1/meteo IN USE	latest	64dbd9b79862	21 minutes ago	939.33 MB
devops1/mormox IN USE	latest	64dbd9b79862	21 minutes ago	939.33 MB
mormox/meteo IN USE	devops1	64dbd9b79862	21 minutes ago	939.33 MB
test IN USE	latest	4dcd4e6a936f	about 3 hours ago	939.33 MB
tp1 IN USE	latest	31bd41dd63f3	about 3 hours ago	939.33 MB

---

mormox › Repositories › meteo

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TAG

devops1
Last pushed a few seconds ago by mormox

docker pull mormox/meteo:devops1

DIGEST	OS/ARCH	SCANNED	LAST PULL	COMPRESSED SIZE ⓘ
04b83391deba	linux/amd64	---	---	349.56 MB