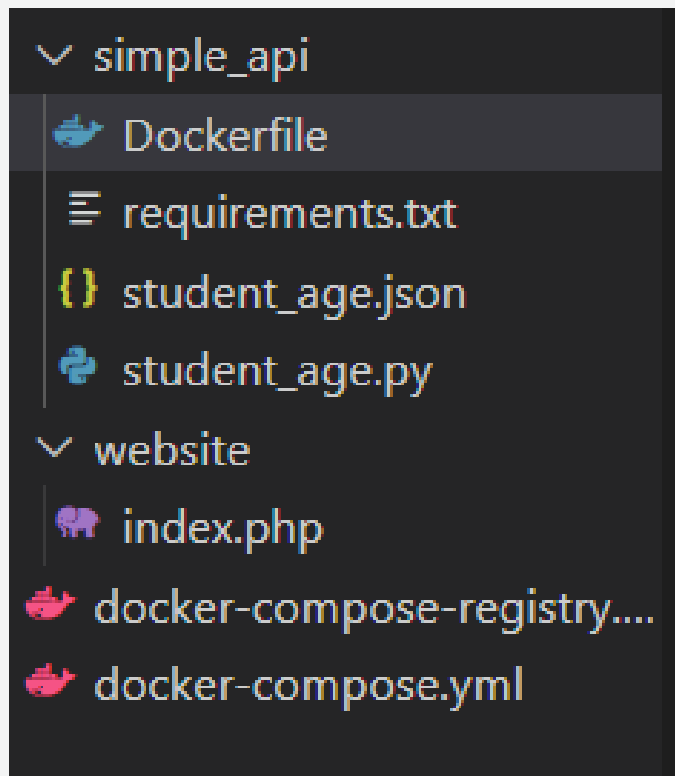


The background features abstract, flowing shapes in various shades of blue (dark navy, medium blue, and light blue) against a white background. A large, thin, dark blue arc curves from the top right towards the bottom right. Another dark blue shape is in the top left corner. At the bottom, there are two overlapping curved shapes, one in dark navy and one in a vibrant medium blue.

RAPPORT MINI PROJET

| Souhail Mossalim

Structure du projet:



simple_api/Dockerfile:

```
Dockerfile X docker-compose-registry.yml docker-compose.yml index.php
simple_api > Dockerfile > ...
1  # Utiliser l'image de base Python 3.8-buster
2  FROM python:3.8-buster
3
4  # Définir le mainteneur
5  LABEL maintainer="Souhail Mossalim <mossalim.s.e@gmail.com>"
6
7  # Définir le dossier de travail
8  WORKDIR /
9
10 # Copier les fichiers nécessaires
11 COPY student_age.py /
12 COPY requirements.txt /
13
14 # Installer les dépendances
15 RUN apt update -y && apt install -y python3-dev libssl-dev libldap2-dev libssl-dev
16 RUN pip install --no-cache-dir -r /requirements.txt
17
18 # Exposer le port de l'API
19 EXPOSE 5000
20
21 # Définir la commande de démarrage
22 CMD ["python3", "./student_age.py"]
23
```

Construire l'image de l'API:

```
• PS C:\Users\souha\Downloads\student_list> cd simple_api
• PS C:\Users\souha\Downloads\student_list\simple_api> docker build -t student_api .
[+] Building 81.9s (11/11) FINISHED                                docker:desktop-linux
=> [internal] load build definition from Dockerfile                0.1s
=> => transferring dockerfile: 623B                                0.0s
=> [internal] load metadata for docker.io/library/python:3.8-buster 2.0s
=> [auth] library/python:pull token for registry-1.docker.io      0.0s
=> [internal] load .dockerignore                                  0.0s
=> => transferring context: 2B                                       0.0s
=> [1/6] FROM docker.io/library/python:3.8-buster@sha256:04c3f641c2254c229fd2f704c5199f 0.1s
=> => resolve docker.io/library/python:3.8-buster@sha256:04c3f641c2254c229fd2f704c5199f 0.1s
=> [internal] load build context                                  0.0s
=> => transferring context: 71B                                       0.0s
=> CACHED [2/6] COPY student_age.py /                             0.0s
=> CACHED [3/6] COPY requirements.txt /                           0.0s
=> [4/6] RUN apt update -y && apt install -y python3-dev libsasl2-dev libldap2-dev lib 39.2s
=> [5/6] RUN pip install --no-cache-dir -r /requirements.txt      21.1s
=> exporting to image                                             19.0s
=> => exporting layers                                              12.3s
=> => exporting manifest sha256:369bccdfb2e034a57b9e29ab944c194d95a33c9995d00eb69e3d4bd 0.0s
=> => exporting config sha256:ab51091d4f7b2cb3cf80773ae4d26c540a3c5c7261eda94ce2f1bc1c3 0.0s
=> => exporting attestation manifest sha256:fdd42392003524827f0d9e68deb857a710d9ea78401 0.1s
=> => exporting manifest list sha256:f8e46b4e5be3aef0160905e59fae68b92887c6d530da21c746 0.0s
=> => naming to docker.io/library/student_api:latest              0.0s
=> => unpacking to docker.io/library/student_api:latest           6.2s
```

Lancer l'API

```
PS C:\Users\souha\Downloads\student_list\simple_api> docker run -d --name student_api_container
• -p 5000:5000 student_api
ad08336acdc3cc85a4825423d1dad6decfd471a45cf4b6d7ef71aa6bec42d4f1
```

Configurer docker-compose.yml

```

simple_api
  Dockerfile
  requirements.txt
  student_age.json
  student_age.py 2
website
  index.php
docker-compose-regi...
docker-compose.yml

1 version: "3.8"
2
3 services:
4   api:
5     build: ./simple_api
6     container_name: student_api_container
7     ports:
8       - "5000:5000"
9     networks:
10      - student_network
11     environment:
12      - admin=toto
13      - pass=python
14
15   website:
16     image: php:apache
17     container_name: student_website_container
18     ports:
19       - "8080:80"
20     volumes:
21       - ./website:/var/www/html
22     depends_on:
23       - api
24     networks:
25       - student_network
26
27 networks:
28   student_network:
29     driver: bridge
30
```

Démarrer l'application avec docker-compose

```

PS C:\Users\souha\Downloads\student_list> docker-compose up -d
time="2025-03-23T23:53:47Z" level=warning msg="C:\\Users\\souha\\Downloads\\student_list
\\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please re
move it to avoid potential confusion"
[+] Running 13/15
- website [██████████] 151.8MB / 180.6MB Pulling 23.1s
```

```

PS C:\Users\souha\Downloads\student_list> docker-compose up -d
time="2025-03-23T23:53:47Z" level=warning msg="C:\\Users\\souha\\Downloads\\student_list\\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 15/15
  ✓ website Pulled 67.8s
[+] Building 90.7s (12/12) FINISHED docker:desktop-linux
=> [api internal] load build definition from Dockerfile 0.1s
=> => transferring dockerfile: 623B 0.0s
=> [api internal] load metadata for docker.io/library/python:3.8-buster 2.5s
=> [api auth] library/python:pull token for registry-1.docker.io 0.0s
=> [api internal] load .dockerignore 0.1s
=> => transferring context: 2B 0.0s
=> CACHED [api 1/6] FROM docker.io/library/python:3.8-buster@sha256:04c3f641c225 0.1s
=> => resolve docker.io/library/python:3.8-buster@sha256:04c3f641c2254c229fd2f70 0.1s

```

Vérifier les conteneurs en cours d'exécution

```

PS C:\Users\souha\Downloads\student_list> docker ps

```

Tester l'API

```

PS C:\Users\souha\Downloads\student_list> curl -u toto:python -X GET http://localhost:5000/SUPMIT/api/v1.0/get_student_ages

```

Mettre en place le registre privé Docker

```
version: "3.8"
```

```
►Run All Services
```

```
services:
```

```
►Run Service
```

```
registry:
```

```
image: registry:2
```

```
container_name: student_registry
```

```
ports:
```

```
- "5001:5000"
```

```
restart: always
```

```
►Run Service
```

```
registry-ui:
```

```
image: joxit/docker-registry-ui
```

```
container_name: registry_ui
```

```
ports:
```

```
- "8081:80"
```

```
environment:
```

```
- REGISTRY_URL=http://registry:5000
```

```
depends_on:
```

```
- registry
```

Démarrer le registre privé:

`docker-compose -f docker-compose-registry.yml up -d`

```
[+] Running 3/3
✓ Network student_list_default    Created
✓ Container student_registry      Started
✓ Container registry_ui           Started
```

Taguer et pousser l'image de l'API

```
PS C:\Users\souha\Downloads\student_list> docker tag student_api localhost:5001/student_api
>> docker push localhost:5001/student_api
Using default tag: latest
The push refers to repository [localhost:5001/student_api]
a11e135762f0: Waiting
b1e7e053c9f6: Waiting
a2e1e233599c: Waiting
fb75d30f5782: Waiting
4e3e4c9c7bf3: Waiting
0ebfe287e976: Waiting
b1e7e053c9f6: Pushed
a2e1e233599c: Pushed
5e4e21ea7d04: Pushed
819d305a9b22: Pushing 13.63MB/19.29MB
e073bbb7fb4c: Pushed
3b1c264c0ad4: Pushing 13.63MB/17.58MB
ac8bb7e1a323: Pushed

819d305a9b22: Pushed

3b1c264c0ad4: Pushed
8c8687d9953d: Pushed
latest: digest: sha256:f8e46b4e5be3aef0160905e59fae68b92887c6d530da21c746842d0abd1c9b9b
size: 856
PS C:\Users\souha\Downloads\student_list> 
```

Nettoyage et arrêt

```
PS C:\Users\souha\Downloads\student_list> docker-compose down
>> docker-compose -f docker-compose-registry.yml down
time="2025-03-24T00:03:14Z" level=warning msg="C:\\Users\\souha\\Downloads\\student_list
\\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please re
move it to avoid potential confusion"
[+] Running 1/1
 ✓ Network student_list_student_network Removed 1.0s
time="2025-03-24T00:03:18Z" level=warning msg="C:\\Users\\souha\\Downloads\\student_list
\\docker-compose-registry.yml: the attribute `version` is obsolete, it will be ignored,
please remove it to avoid potential confusion"
[+] Running 3/3
 ✓ Container registry_ui Removed 1.1s
 ✓ Container student_registry Removed 1.7s
 ✓ Network student_list_default Removed 0.9s
PS C:\Users\souha\Downloads\student_list>
```