

DEVOPS YNOV

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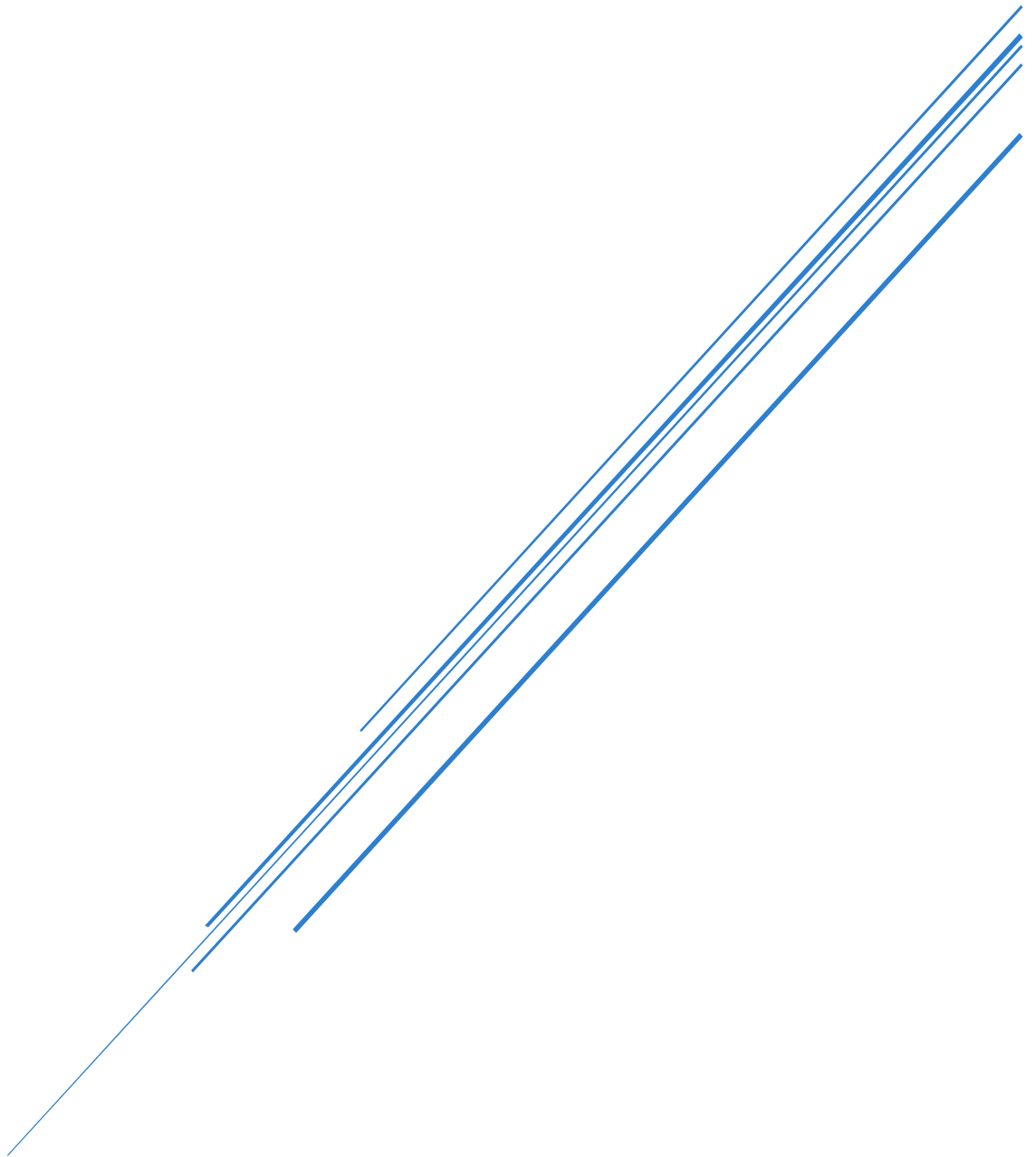


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Evaluation DevOps

Objectif :

1. Containerize the application. The image that you will build must be named
 2. complete the Dockerfile with the TODO
 3. Publish the custom image to your own dockerhub account
 4. Create 3 virtual machines with ubuntu server.
- The first virtual machine will be named gitlab-instance
 - The second virtual machine will be named gitlab-runner
 - The third virtual machine will be named dev-srv

Liste des machines :

- gitlab-instance {
 .Adresse IP :172.20.10.2/28
 .
 Instance login : http://172.20.10.3/
 -user=root
 -psswd=*****
 .
 Image : ubuntu
 }
• gitlab-runner {
 .Adresse IP :172.20.10.3/28
 .
 Image : ubuntu
 }
• dev-srv → {
 .Adresse IP :172.20.10.3/28
 .
 Image : python:3.10-alpine
 }

I) Containeriser l'application

1) Installation de l'image requise : python:3.10-alpine

```
PS C:\Users\kyria\DevOpsEval> docker pull python:3.10-alpine
3.10-alpine: Pulling from library/python
4abcf2066143: Pull complete
c3cdf40b8bda: Pull complete
e364c76f7f9c: Pull complete
00a2c001a0af: Pull complete
77b5492a4815: Pull complete
Digest: sha256:d75c7712b61e93efa287df5fceedeae2ef773f44a6b71efc6e42fec4666d
Status: Downloaded newer image for python:3.10-alpine
docker.io/library/python:3.10-alpine

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview python:3.10-alpine
PS C:\Users\kyria\DevOpsEval>
```

2) Vérification de l'existence de l'image :

```
PS C:\Users\kyria\OneDrive\Documents\DevOpsEval_Instance> docker tag dev-srv-image:latest Kyrian03/dev-srv-image
PS C:\Users\kyria\OneDrive\Documents\DevOpsEval_Instance> docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
Kyrian03/dev-srv-image	latest	9abac71d3310	8 minutes ago	224MB
dev-srv-image	latest	9abac71d3310	8 minutes ago	224MB
kathara/base	latest	3e7b31aa8be8	8 days ago	1.01GB
kyrian03/ynov-b3-nginx	latest	6160846858b6	2 weeks ago	249MB
ynov-b3-nginx	latest	6160846858b6	2 weeks ago	249MB
nginx	latest	e4720093a3c1	4 weeks ago	187MB
python	3.10-alpine	63966ae48488	6 weeks ago	50.2MB
dockerhub/mangodb	latest	7aeeadea84b2	6 years ago	353MB

II) Configuration du Dockerfile

```
Dockerfile U X
eval-devops > counter-app > Dockerfile
1 FROM python:3.10-alpine
2 WORKDIR /code
3 ENV FLASK_APP=app.py
4 ENV FLASK_RUN_HOST=0.0.0.0
5 RUN apk add --no-cache gcc musl-dev linux-headers
6 COPY requirements.txt requirements.txt
7 RUN pip install -r requirements.txt
8 EXPOSE 5000
9 COPY . .
10 CMD ["flask", "run"]
```

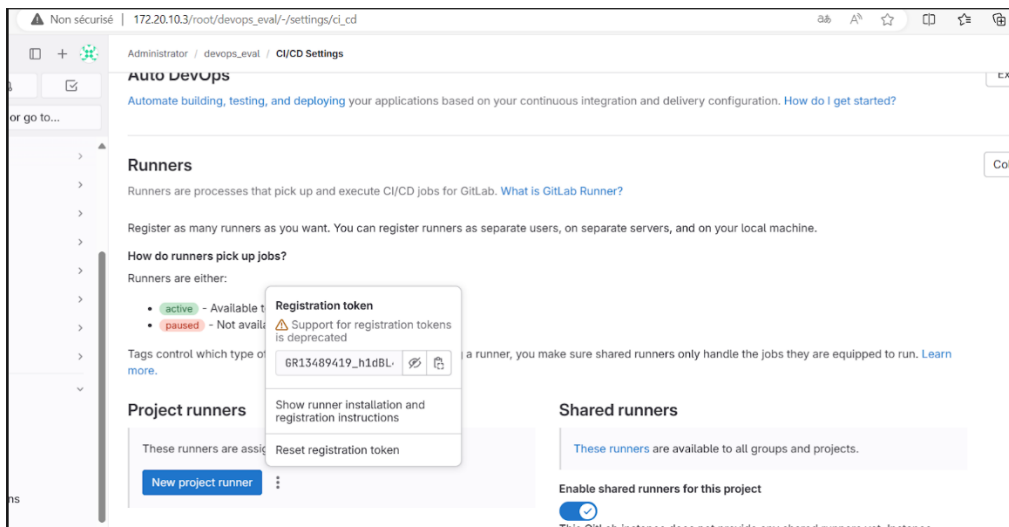
III) Envoi de l'image custom vers Docker Hub

Redirection de l'image dans le local repository

```
PS C:\Users\kyria\DevOpsEval> docker tag python:3.10-alpine Kyrian03/python:3.10-alpine
PS C:\Users\kyria\DevOpsEval> docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
kathara/base         latest             3e7b31aa8be8       8 days ago         1.01GB
kyrian03/ynov-b3-nginx latest             6160846858b6       2 weeks ago        249MB
ynov-b3-nginx        latest             6160846858b6       2 weeks ago        249MB
nginx                latest             e4720093a3c1       4 weeks ago        187MB
Kyrian03/python      3.10-alpine        63966ae48488       6 weeks ago        50.2MB
python               3.10-alpine        63966ae48488       6 weeks ago        50.2MB
dockrhub/mangodb     latest             7aeeadea84b2       6 years ago        353MB
PS C:\Users\kyria\DevOpsEval>
```

IV) Configuration du runner

1) Récupération du registration_token



```
81 updates can be applied immediately.
20 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet co

Last login: Mon Mar 18 07:57:54 2024
redji@gitlabrunner:~$ export REGISTRATION_TOKEN="GR13489419_h1dBL4yXEmbceKkGFfi"
```

2) Configuration de l'url du token et des tags du runner

```
redji@gitlabrunner:~$ sudo gitlab-runner register --url http://172.20.10.3/ --registration-token $REGISTRATION_TOKEN
Runtime platform
  arch=amd64 os=linux pid=2616 revision=c72a09b6 version=16.8.0
Running in system-mode.

Enter the GitLab instance URL (for example, https://gitlab.com/):
[http://172.20.10.3/]:
Enter the registration token:
[GR1348941-6uJnURMcpmCJuanRE6b]: GR13489419_h1dBL4yXEmbecKkGF1
Enter a description for the runner:
[gitlabrunner]:
Enter tags for the runner (comma-separated):
shell,runner
Enter optional maintenance note for the runner:

WARNING: Support for registration tokens and runner parameters in the 'register' command has been deprecated in GitLab Runner 15.6 and will be replaced with
support for authentication tokens. For more information, see https://docs.gitlab.com/ee/ci/runners/new_creation_workflow
Registering runner... succeeded runner=GR13489419_h1dBL4
Enter an executor: virtualbox, docker, docker+machine, instance, shell, ssh, parallels, docker-windows, kubernetes, docker-autoscaler, custom:
shell
Runner registered successfully. Feel free to start it, but if it's running already the config should be automatically reloaded!

Configuration (with the authentication token) was saved in "/etc/gitlab-runner/config.toml"
redji@gitlabrunner:~$
```

V) Création et démarrage de la 3e VM (dev-srv)

```
PS C:\Users\kyria\OneDrive\Documents\DevOpsEval> docker run --name dev-srv Kyrian03/python:3.10-alpine
PS C:\Users\kyria\OneDrive\Documents\DevOpsEval> docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS          NAMES
e52469a74369   Kyrian03/python:3.10-alpine         "python3"                3 minutes ago Up 3 minutes   interesting_yonath
PS C:\Users\kyria\OneDrive\Documents\DevOpsEval>
```

VI) Configuration des variables du Dockerfile











Variables

Variables store information that you can use in job scripts. Each project can define a maximum of 8000 variables. [Learn more.](#)

Variables can be accidentally exposed in a job log, or maliciously sent to a third party server. The masked variable feature can help reduce the risk of accidentally exposing variable values, but is not a guaranteed method to prevent malicious users from accessing variables. [How can I make my variables more secure?](#)

Variables can have several attributes. [Learn more.](#)

- **Protected:** Only exposed to protected branches or protected tags.
- **Masked:** Hidden in job logs. Must match masking requirements.
- **Expanded:** Variables with `$` will be treated as the start of a reference to another variable.

CI/CD Variables </> 2				Reveal values	Add variable
↑ Key	Value	Environments	Actions		
DKHPsswd  Masked Expanded	***** 	All (default) 	 		
DKHUser  Masked Expanded	***** 	All (default) 	 		

VII) Lancement des pipelines et de l'application

<div>✔ Passed</div> <div>00:00:24 just now</div>	Update .gitlab-ci.yml file #36 main		<div>✔✔✔</div>	<div>↓</div>
<div>✔ Passed</div> <div>00:01:49 14 minutes ago</div>	Update .gitlab-ci.yml file #35 main		<div>✔✔</div>	<div>↓</div>
<div>✔ Passed</div> <div>00:00:08 32 minutes ago</div>	Update .gitlab-ci.yml file #34 main		<div>✔</div>	<div>↓</div>

