

TP 4 :

On initialise le repo git avec la ligne SSH :

```
ilias@jerry:~/tp-4-docker$ ssh-keygen -t ed25519 -C "iliass.boukhris@gmail.com"
Generating public/private ed25519 key pair.
Enter file in which to save the key (/home/ilias/.ssh/id_ed25519):
/home/ilias/.ssh/id_ed25519 already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ilias/.ssh/id_ed25519
Your public key has been saved in /home/ilias/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:NaDyTcddz3b+df3jLJKK/ZG8Lu6lsCCnTsH30+/PVg8 iliass.boukhris@gmail.com
The key's randomart image is:
+--[ED25519 256]--+
|
|   .   .   .
|  . o . . . o |
| . . . = . = |
| .o o o . oo |
| o..S      = |
|  o . . E.* |
| o o o  B.=+ |
| . +..*.=.* o |
```

```
ilias@jerry:~/tp-4-docker$ cat ~/.ssh/id_ed25519.pub
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAID37aNwhJvHYgxaVEeD3Gjgclzipq+VoZf/10RLHJG/9 iliass.boukhris@gmail.com
ilias@jerry:~/tp-4-docker$ ssh -T git@github.com
Hi IliassBoss212! You've successfully authenticated, but GitHub does not provide shell access.
```

```
ilias@jerry:~/tp-4-docker$ git push --set-upstream origin master
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (5/5), 460 bytes | 460.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:IliassBoss212/tp-4-docker.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
ilias@jerry:~/tp-4-docker$ git add .
ilias@jerry:~/tp-4-docker$ git commit -m "test"
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
ilias@jerry:~/tp-4-docker$ git push
Everything up-to-date
```

Test du premier workflow :

CI Test TP 4 Docker

prems #1

Re-run all jobs Latest #3

Summary

Jobs

- build

Run details

Usage

Workflow file

Re-run triggered 42 minutes ago

Status: Success

Total duration: 10s

Artifacts: -

ci.yml  
on: push

build 3s

Création de 2 fichier python :

```
ilias@jerry:~/tp-4-docker$ ls
Dockerfile  __pycache__  simple_math.py  test_simple_math.py
ilias@jerry:~/tp-4-docker$ |
```

```
"""
Fichier qui contient fun + et -
"""

class SimpleMath:
    """
    Classe avec des méthodes statiques pour les opérations mathématiques de base.
    """
    @staticmethod
    def addition(a, b):
        """
        Retourne la somme de a et b.
        """
        return a + b

    @staticmethod
    def soustraction(a, b):
        """
        Retourne la différence entre a et b.
        """
        return a - b

~
~
~
~
```

:waq

```

"""
Tests unitaires pour classes
"""

import unittest
from simple_math import SimpleMath

class TestSimpleMath(unittest.TestCase):
    """
    Tests pour + et -
    """
    def test_addition(self):
        """
        Test +
        """
        self.assertEqual(SimpleMath.addition(2, 3), 5)

    def test_soustraction(self):
        """
        Test -
        """
        self.assertEqual(SimpleMath.soustraction(5, 3), 2)

if __name__ == '__main__':
    unittest.main()
~
~

```

:wq

Test d'addition et soustraction :

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Test Python - TP 4 Docker

✓ soustraction + #4 Re-run all jobs

Summary

Jobs

test

Run details

Usage

Workflow file

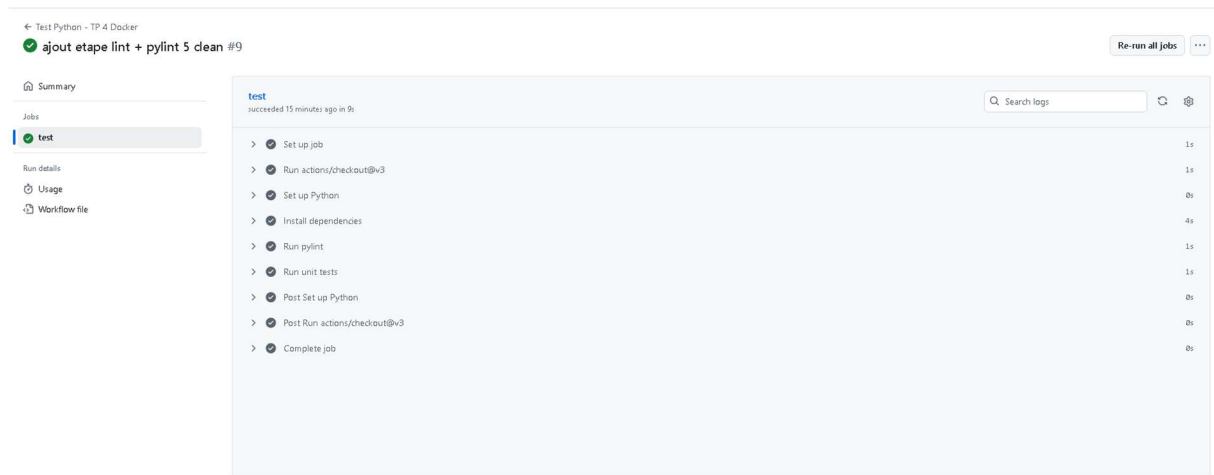
test

succeeded 42 minutes ago in 6s

Search logs

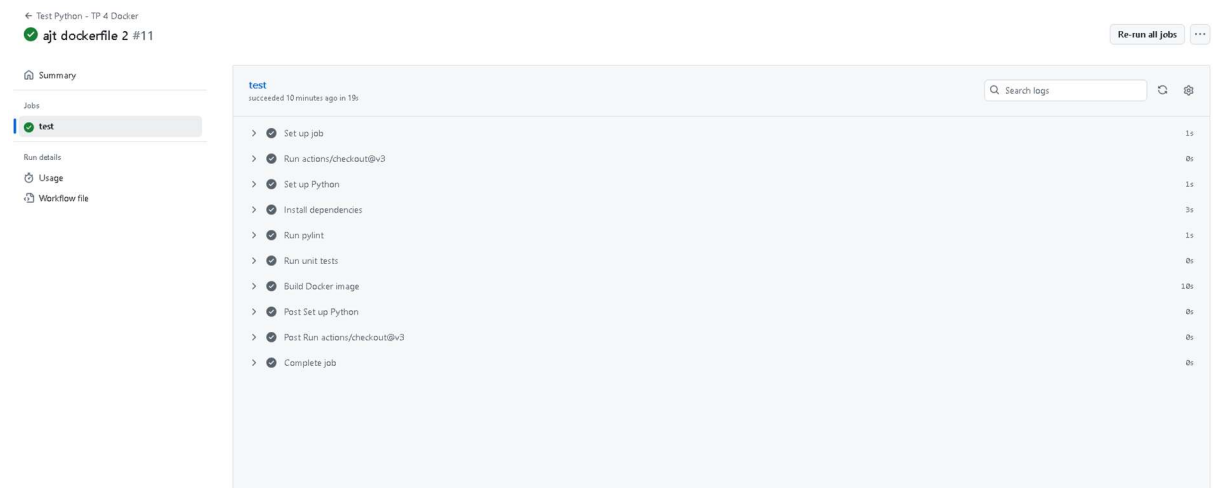
- > Set up job 1s
- > Run actions/checkout@v3 1s
- > Set up Python 0s
- > Install dependencies 2s
- > Run unit tests 0s
- > Post Set up Python 0s
- > Post Run actions/checkout@v3 0s
- > Complete job 0s

Ajout de l'étape de lint qui valide la syntaxe du code :



J'ai mis 9 commit + push pour qu'elle soit validé.

Ajout d'une etape qui build un conteneur Docker embarquant l'appli.



Elle execute bien les tests unitaires dès le run d'un nouveau conteneur à partir de l'image :

```

ilias@jerry:~/tp-4-docker$ docker build -t tp4-docker .
[+] Building 1.0s (10/10) FINISHED                                docker:default
=> [internal] load build definition from Dockerfile                0.0s
=> => transferring dockerfile: 432B                                0.0s
=> [internal] load metadata for docker.io/library/python:3.11-slim 0.6s
=> [internal] load .dockerignore                                  0.0s
=> => transferring context: 2B                                       0.0s
=> [1/5] FROM docker.io/library/python:3.11-slim@sha256:9e1912aab0a30bbd9488eb79063f68f42a68ab0946cbe98fecf197fe 0.0s
=> => resolve docker.io/library/python:3.11-slim@sha256:9e1912aab0a30bbd9488eb79063f68f42a68ab0946cbe98fecf197fe 0.0s
=> [internal] load build context                                  0.0s
=> => transferring context: 758                                       0.0s
=> CACHED [2/5] WORKDIR /app                                       0.0s
=> CACHED [3/5] COPY simple_math.py .                             0.0s
=> CACHED [4/5] COPY test_simple_math.py .                       0.0s
=> CACHED [5/5] RUN pip install --upgrade pip && pip install pylint 0.0s
=> exporting to image                                             0.1s
=> => exporting layers                                              0.0s
=> => exporting manifest sha256:00417352a5daba919350c815aac6a2e427b8dcbad99a64cb64db70b2af3f4dcb 0.0s
=> => exporting config sha256:b58409f4ef1bb69ffc1bcad020243430141f84e66c0cb0602e5aab3fe7fe0662 0.0s
=> => exporting attestation manifest sha256:cc141618f78cab5d00e8231d8c6f8317947ce43977d26454cae7d3428aedac8 0.0s
=> => exporting manifest list sha256:9a1daffad538bb831b9fd4ecb353c419b47f44ee892ae5c563770d0eb0b6eca9 0.0s
=> => naming to docker.io/library/tp4-docker:latest              0.0s
=> => unpacking to docker.io/library/tp4-docker:latest           0.0s
ilias@jerry:~/tp-4-docker$ docker run --rm tp4-docker
..
-----
Ran 2 tests in 0.000s

OK
ilias@jerry:~/tp-4-docker$ ls

```