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Projet Web – Kubernetes

1) Un seul service local
   a. Mini application qui affiche mon nom :

```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ cat myname.java
public class myname {
    public static void main(String[] args) {
        System.out.println("Je m'appelle Mario");
    }
}
┌──(kali㉿kali)-[~/Desktop/web]
```

code

```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ javac myname.java
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
```

compilation du code

```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ java myname
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Je m'appelle Mario
```

lancement du code

```
┌──(kali㉿kali)-[~]
└─$ java --version
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
openjdk 17.0.9 2023-10-17
OpenJDK Runtime Environment (build 17.0.9+9-Debian-2)
OpenJDK 64-Bit Server VM (build 17.0.9+9-Debian-2, mixed mode, sharing)
```

Version Java

   b. Creation image docker – faire un Dockerfile

```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ cat Dockerfile
FROM openjdk:17-jdk
COPY . /app
WORKDIR /app
RUN javac myname.java
CMD ["java", "myname"]
```

Dockerfile

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```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ sudo docker build -t prenom .
Sending build context to Docker daemon  4.096kB
Step 1/5 : FROM openjdk:17-jdk
17-jdk: Pulling from library/openjdk
38a980f2cc8a: Pull complete
de849f1cfbe6: Pull complete
a7203ca35e75: Pull complete
Digest: sha256:528707081fdb9562eb819128a9f85ae7fe000e2fbaeaf9f87662e7b3f38cb7d8
Status: Downloaded newer image for openjdk:17-jdk
 ──→ 5e28ba2b4cdb
Step 2/5 : COPY . /app
 ──→ a482ac28da40
Step 3/5 : WORKDIR /app
 ──→ Running in f5928ddcd9bc
Removing intermediate container f5928ddcd9bc
 ──→ f8fd9544f062
Step 4/5 : RUN javac myname.java
 ──→ Running in b710dbf1547a
Removing intermediate container b710dbf1547a
 ──→ 3cb0c39d9e2a
Step 5/5 : CMD ["java", "myname"]
 ──→ Running in 6bd4405f9a0f
Removing intermediate container 6bd4405f9a0f
 ──→ 78e3f2678ed5
Successfully built 78e3f2678ed5
Successfully tagged prenom:latest
```

Construction du Dockerfile

c. Publier l'image docker :

```
┌──(kali㉿kali)-[~/Desktop/web]
└─$ sudo docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: shuklux
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```

Docker login

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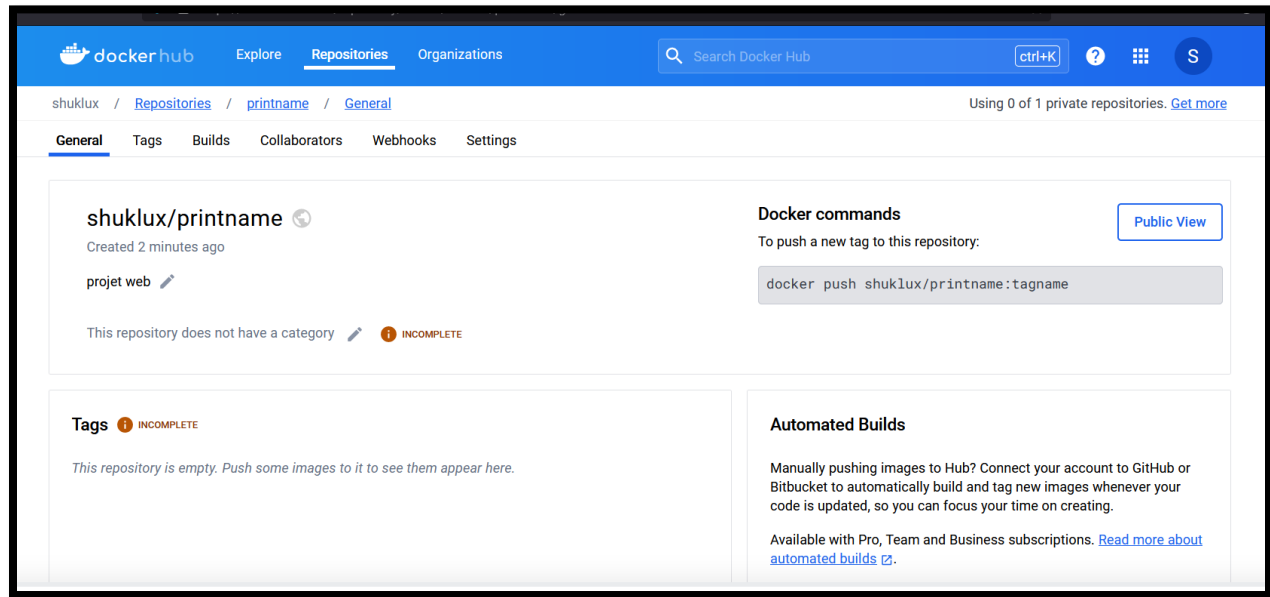
Creation repository sur dockerhub
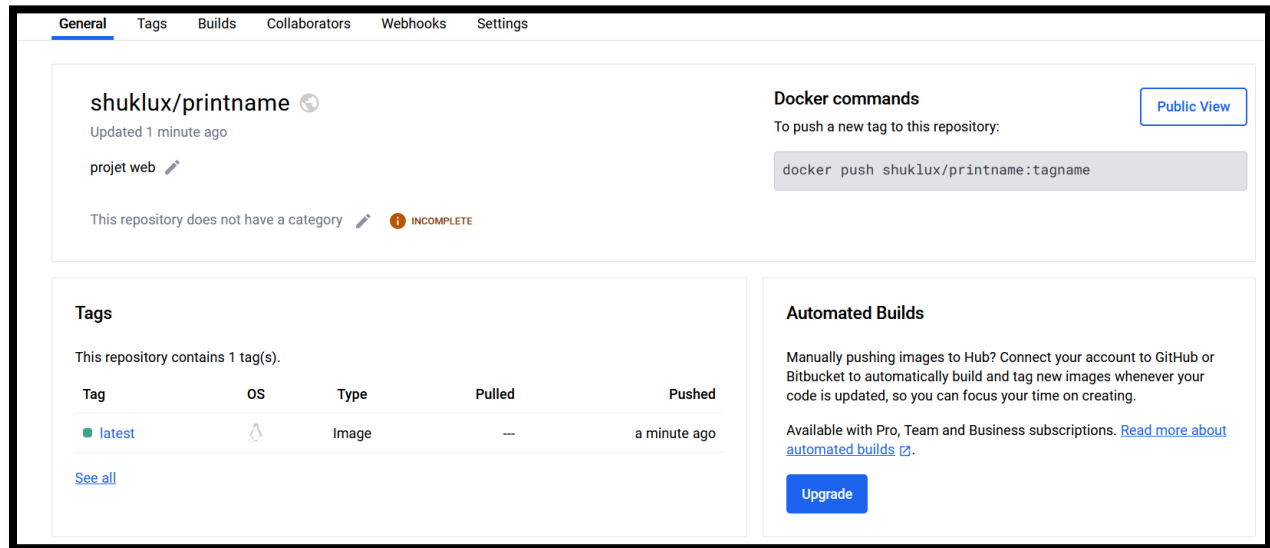

Tag de l'image docker

Push de l'image

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Nouveau tag sur dockerhub

d. Créer un déploiement Kubernetes

deployment.yaml