

Rendu évaluation 1 Docker

Groupe :

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TASK1 :

1- Création d'un réseau Docker :

Pour que les conteneurs Docker de votre projet puissent communiquer entre eux, vous pouvez créer un réseau Docker dédié à l'aide de la commande suivante :

```
[→ ~ docker network create network_docker_karim_ibrahim  
94dbceb6437f7653c5724f236755591af2d8076b0f3cedb16084cc5e75c31457
```

2- Création d'un volume Docker pour MariaDB :

Pour stocker les données de votre base de données MariaDB de manière persistante, vous pouvez créer un volume Docker avec la commande suivante :

```
[→ ~ docker volume create mariadb_data_karim_ibrahim  
mariadb_data_karim_ibrahim
```

3- Création d'un volume Docker pour PrestaShop :

Pour stocker de manière persistante des données spécifiques à PrestaShop, vous pouvez créer un volume Docker dédié avec la commande suivante :

```
[→ ~ docker volume create prestashop_data_karim_ibrahim  
prestashop_data_karim_ibrahim
```

4- Lancement du conteneur MariaDB :

Pour exécuter MariaDB en tant que conteneur Docker, utilisez la commande suivante :

```
[→ ~ docker run -d --name mariadb_karim_ibrahim --network network_docker_karim_ibrahim -e MYSQL_ROOT_PASSWORD=0000 -e MYSQL_DATABASE=prestashop_db -e MYSQL_USER=prestashop_user -e MYSQL_PASSWORD=0000 -v m|  
mariadb_data_karim_ibrahim:/var/lib/mysql mariadb  
Unable to find image 'mariadb:latest' locally  
latest: Pulling from library/mariadb  
aeb9f260d781: Pull complete  
19eb1c6c20e3: Pull complete  
a1641b3e16fc: Pull complete  
5e35664529bc: Pull complete  
3198602b044f: Pull complete  
fa22afb0a54b: Pull complete  
aedfcb2d397e: Pull complete  
85a621690fb9: Pull complete  
Digest: sha256:c006c95608604cf21c9f5b13af3ba7d6ccb3df5bc042c3fe294e0b6d34689b55  
Status: Downloaded newer image for mariadb:latest  
824ef75964b82966adff27ac97443afc3926d65b4440b9256aed9b22c7602e10
```

Cette commande crée et démarre un conteneur MariaDB nommé "mariadb_karim_ibrahim", le connecte au réseau "network_docker_karim_ibrahim", configure le mot de passe root, crée une base de données PrestaShop, un utilisateur PrestaShop, et monte le volume "mariadb_data_karim_ibrahim" pour stocker les données de MariaDB de manière persistante.

5- Lancement du conteneur PrestaShop :

Pour exécuter PrestaShop en tant que conteneur Docker, utilisez la commande suivante :

```
0 ~ docker run -d --name prestashop_karim_ibrahim --network network_docker_karim_ibrahim -e DB_SERVER=mariadb_karim_ibrahim -e DB_NAME=prestashop_db -e DB_USER=prestashop_user -e DB_PASSWORD=0000 -p 8080:80
0 ~ prestashop_data_karim_ibrahim: /var/www/html prestashop/prestashop
Unable to find image 'prestashop/prestashop:latest' locally
latest: Pulling from prestashop/prestashop
a883e7c4b080: Pull complete
84313a8f4350: Pull complete
94f42c54df3f: Pull complete
fac86b32c028: Pull complete
e326747c51cb: Pull complete
22a1eb3f780e: Pull complete
82dc726ec2a7: Pull complete
03466a4f1518: Pull complete
cd65d11b092a: Pull complete
cea53147c430: Pull complete
d70222ea3c2a: Pull complete
573cf5bb7fa1: Pull complete
05a21f22b0ef: Pull complete
69b6682cef76: Pull complete
df6afb38cd6: Pull complete
648b56fab1e7: Pull complete
6a477b6dc07: Pull complete
85b366fb5238: Pull complete
56d09d835ca3: Pull complete
0f2451c0f997: Pull complete
2b3b1c0f78db: Pull complete
f7e55e482859: Pull complete
9095eba13757: Pull complete
b11a645ec861: Pull complete
b9a849e0e02e: Pull complete
9f8132ecfa88: Pull complete
Digest: sha256:e7321ad71ad081c10942db59497d2b5d5f287a64fff6287a62dc53509f42c4de
Status: Downloaded newer image for prestashop/prestashop:latest
WARNING: The requested image's platform (linux/amd64) does not match the detected host platform (linux/arm64/v8) and no specific platform was requested
0ac6a51d5e772ce597364f163a2c6cfc78c06fc2d68c3468a511843c529aab2
```

Cette commande crée et démarre un conteneur PrestaShop nommé "prestashop_karim_ibrahim", le connecte au réseau "network_docker_karim_ibrahim", configure les paramètres de connexion à la base de données, mappe le port 8080 sur le port 80 du conteneur, et monte le volume "prestashop_data_karim_ibrahim" pour stocker les données de PrestaShop de manière persistante.

6- Installation d'utilitaires dans le conteneur PrestaShop :

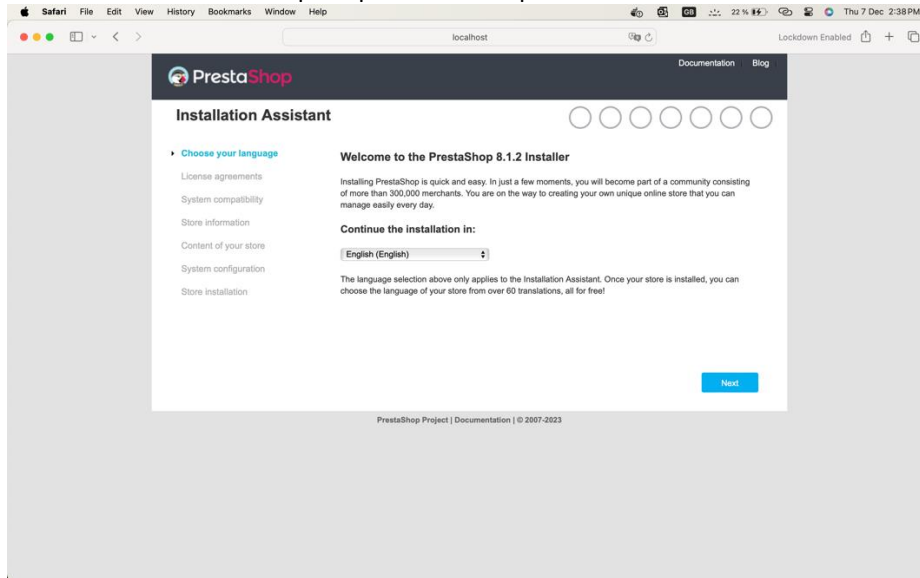
installer des utilitaires supplémentaires dans le conteneur PrestaShop, utilisez la commande suivante :

```
0 ~ docker exec -it prestashop_karim_ibrahim apt-get install -y iputils-ping
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcap2-bin libpam-cap
The following NEW packages will be installed:
  iputils-ping libcap2-bin libpam-cap
0 upgraded, 3 newly installed, 0 to remove and 27 not upgraded.
Need to get 96.2 kB of archives.
After this operation, 311 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 libcap2-bin amd64 1:2.66-4 [34.7 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 iputils-ping amd64 3:20221126-1 [47.1 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 libpam-cap amd64 1:2.66-4 [14.5 kB]
Fetched 96.2 kB in 1s (160 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libcap2-bin.
(Reading database ... 15591 files and directories currently installed.)
Preparing to unpack .../libcap2-bin_1%3a2.66-4_amd64.deb ...
Unpacking libcap2-bin (1:2.66-4) ...
Selecting previously unselected package iputils-ping.
Preparing to unpack .../iputils-ping_3%3a20221126-1_amd64.deb ...
Unpacking iputils-ping (3:20221126-1) ...
Selecting previously unselected package libpam-cap:amd64.
Preparing to unpack .../libpam-cap_1%3a2.66-4_amd64.deb ...
Unpacking libpam-cap:amd64 (1:2.66-4) ...
Setting up libcap2-bin (1:2.66-4) ...
Setting up libpam-cap:amd64 (1:2.66-4) ...
debconf: unable to initialize frontend: Dialog
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)
debconf: falling back to frontend: Readline
Setting up iputils-ping (3:20221126-1) ...
```

7- installe l'utilitaire ping dans le conteneur :

```
0 ~ docker exec -it prestashop_karim_ibrahim apt-get install -y iputils-ping
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcap2-bin libpam-cap
The following NEW packages will be installed:
  iputils-ping libcap2-bin libpam-cap
0 upgraded, 3 newly installed, 0 to remove and 27 not upgraded.
Need to get 96.2 kB of archives.
After this operation, 311 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 libcap2-bin amd64 1:2.66-4 [34.7 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 iputils-ping amd64 3:20221126-1 [47.1 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 libpam-cap amd64 1:2.66-4 [14.5 kB]
Fetched 96.2 kB in 1s (160 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libcap2-bin.
(Reading database ... 15591 files and directories currently installed.)
Preparing to unpack .../libcap2-bin_1%3a2.66-4_amd64.deb ...
Unpacking libcap2-bin (1:2.66-4) ...
Selecting previously unselected package iputils-ping.
Preparing to unpack .../iputils-ping_3%3a20221126-1_amd64.deb ...
Unpacking iputils-ping (3:20221126-1) ...
Selecting previously unselected package libpam-cap:amd64.
Preparing to unpack .../libpam-cap_1%3a2.66-4_amd64.deb ...
Unpacking libpam-cap:amd64 (1:2.66-4) ...
Setting up libcap2-bin (1:2.66-4) ...
Setting up libpam-cap:amd64 (1:2.66-4) ...
debconf: unable to initialize frontend: Dialog
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)
debconf: falling back to frontend: Readline
Setting up iputils-ping (3:20221126-1) ...
```

- 8- Afficher le frontEnd sur le port que vous avez spécifié en haut : 8080



- 9- Utiliser ping pour tester la connectivité avec le conteneur PrestaShop :

```
[+ ~ docker exec -it prestashop_karim_ibrahim bash
[root@0ac6a51ad5e7:/var/www/html# ping prestashop_karim_ibrahim
PING prestashop_karim_ibrahim (172.25.0.3) 56(84) bytes of data.
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=1 ttl=64 time=0.168 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=2 ttl=64 time=0.381 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=3 ttl=64 time=0.198 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=4 ttl=64 time=0.174 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=5 ttl=64 time=0.302 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=6 ttl=64 time=0.190 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=7 ttl=64 time=0.591 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=8 ttl=64 time=0.192 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=9 ttl=64 time=0.305 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=10 ttl=64 time=0.167 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=11 ttl=64 time=0.175 ms
64 bytes from 0ac6a51ad5e7 (172.25.0.3): icmp_seq=12 ttl=64 time=0.202 ms
```

TASK2 :

- 1- créer un réseau Docker nommé "ynov-frontend-network" avec le sous-réseau spécifié "192.168.1.0/24"
Créer un réseau Docker distinct nommé "ynov-backend-network" avec le sous-réseau "192.168.2.0/24".

```
-----
docker network create --subnet=192.168.1.0/24 ynov-frontend-network\n
docker network create --subnet=192.168.2.0/24 ynov-backend-network\n
-----
```

- 2- docker run -d --name router --net ynov-frontend-network --cap-add=NET_ADMIN nginx\n

docker network connect ynov-backend-network router\n

```
root@f9b4a88479c2:/# ip route show
default via 192.168.2.1 dev eth1
192.168.1.0/24 dev eth0 proto kernel scope link src 192.168.1.2
192.168.2.0/24 dev eth1 proto kernel scope link src 192.168.2.2
```

```
Terminal Shell Edit View Window Help
karim - docker exec -it prestashop_karim_ibrahim bash -- com.docker.cli - docker exec -it prestashop_karim_ibrahim bash -- 204x58
root@ac6a51ad5e7:/var/www/html# ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data:
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=0.389 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=0.267 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=0.227 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=0.368 ms
64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=0.278 ms
64 bytes from 192.168.1.1: icmp_seq=6 ttl=64 time=0.267 ms
64 bytes from 192.168.1.1: icmp_seq=7 ttl=64 time=0.387 ms
64 bytes from 192.168.1.1: icmp_seq=8 ttl=64 time=0.266 ms
64 bytes from 192.168.1.1: icmp_seq=9 ttl=64 time=0.138 ms
64 bytes from 192.168.1.1: icmp_seq=10 ttl=64 time=0.267 ms
64 bytes from 192.168.1.1: icmp_seq=11 ttl=64 time=0.332 ms
64 bytes from 192.168.1.1: icmp_seq=12 ttl=64 time=0.246 ms
64 bytes from 192.168.1.1: icmp_seq=13 ttl=64 time=0.276 ms
64 bytes from 192.168.1.1: icmp_seq=14 ttl=64 time=0.285 ms
64 bytes from 192.168.1.1: icmp_seq=15 ttl=64 time=0.231 ms
64 bytes from 192.168.1.1: icmp_seq=16 ttl=64 time=0.268 ms
64 bytes from 192.168.1.1: icmp_seq=17 ttl=64 time=0.262 ms
64 bytes from 192.168.1.1: icmp_seq=18 ttl=64 time=0.888 ms
64 bytes from 192.168.1.1: icmp_seq=19 ttl=64 time=0.484 ms
64 bytes from 192.168.1.1: icmp_seq=20 ttl=64 time=0.135 ms
64 bytes from 192.168.1.1: icmp_seq=21 ttl=64 time=0.228 ms
64 bytes from 192.168.1.1: icmp_seq=22 ttl=64 time=0.280 ms
64 bytes from 192.168.1.1: icmp_seq=23 ttl=64 time=0.289 ms
64 bytes from 192.168.1.1: icmp_seq=24 ttl=64 time=0.234 ms
64 bytes from 192.168.1.1: icmp_seq=25 ttl=64 time=0.294 ms
64 bytes from 192.168.1.1: icmp_seq=26 ttl=64 time=0.279 ms
64 bytes from 192.168.1.1: icmp_seq=27 ttl=64 time=0.256 ms
64 bytes from 192.168.1.1: icmp_seq=28 ttl=64 time=0.259 ms
64 bytes from 192.168.1.1: icmp_seq=29 ttl=64 time=0.266 ms
64 bytes from 192.168.1.1: icmp_seq=30 ttl=64 time=0.283 ms
64 bytes from 192.168.1.1: icmp_seq=31 ttl=64 time=0.315 ms
64 bytes from 192.168.1.1: icmp_seq=32 ttl=64 time=0.288 ms
64 bytes from 192.168.1.1: icmp_seq=33 ttl=64 time=0.314 ms
64 bytes from 192.168.1.1: icmp_seq=34 ttl=64 time=0.328 ms
64 bytes from 192.168.1.1: icmp_seq=35 ttl=64 time=0.277 ms
64 bytes from 192.168.1.1: icmp_seq=36 ttl=64 time=0.284 ms
64 bytes from 192.168.1.1: icmp_seq=37 ttl=64 time=0.380 ms
64 bytes from 192.168.1.1: icmp_seq=38 ttl=64 time=0.352 ms
64 bytes from 192.168.1.1: icmp_seq=39 ttl=64 time=0.227 ms
64 bytes from 192.168.1.1: icmp_seq=40 ttl=64 time=0.152 ms
64 bytes from 192.168.1.1: icmp_seq=41 ttl=64 time=0.453 ms
64 bytes from 192.168.1.1: icmp_seq=42 ttl=64 time=0.688 ms
64 bytes from 192.168.1.1: icmp_seq=43 ttl=64 time=0.278 ms
64 bytes from 192.168.1.1: icmp_seq=44 ttl=64 time=0.231 ms
64 bytes from 192.168.1.1: icmp_seq=45 ttl=64 time=0.179 ms
64 bytes from 192.168.1.1: icmp_seq=46 ttl=64 time=0.224 ms
64 bytes from 192.168.1.1: icmp_seq=47 ttl=64 time=0.221 ms
64 bytes from 192.168.1.1: icmp_seq=48 ttl=64 time=0.284 ms
64 bytes from 192.168.1.1: icmp_seq=49 ttl=64 time=0.256 ms
64 bytes from 192.168.1.1: icmp_seq=50 ttl=64 time=0.258 ms
64 bytes from 192.168.1.1: icmp_seq=51 ttl=64 time=0.274 ms
64 bytes from 192.168.1.1: icmp_seq=52 ttl=64 time=0.145 ms
64 bytes from 192.168.1.1: icmp_seq=53 ttl=64 time=0.675 ms
64 bytes from 192.168.1.1: icmp_seq=54 ttl=64 time=0.313 ms
64 bytes from 192.168.1.1: icmp_seq=55 ttl=64 time=0.352 ms
64 bytes from 192.168.1.1: icmp_seq=56 ttl=64 time=0.276 ms
```