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ASSIGNMENT NO : 4.1

Browse to:

tasks/4_microservices_development/day_1_microservices/docker_compose_example

Next you will:

- Start the system using docker-compose so that it runs in background,
- Visit <http://127.0.0.1/> to see WordPress installation panel,
- See the system logs
- Add a PHPMyAdmin service from <https://hub.docker.com/r/phpmyadmin/phpmyadmin/> so that you can manage the raw database contents.

SOLUTION:

STEP#1:

First we opened the yaml file from that example in vs code , that will be like this :

```

1 services:
2   db:
3     image: mariadb:10.6.4-focal
4     command: '--default-authentication-plugin=mysql_native_password'
5     volumes:
6       - db_data:/var/lib/mysql
7     restart: always
8     environment:
9       - MYSQL_ROOT_PASSWORD=somewordpress
10      - MYSQL_DATABASE=wordpress
11      - MYSQL_USER=wordpress
12      - MYSQL_PASSWORD=wordpress
13     expose:
14       - 3306
15   wordpress:
16     image: wordpress:latest
17     volumes:
18       - wp_data:/var/www/html
19     ports:
20       - 80:80
21     restart: always
22     environment:
23       - WORDPRESS_DB_HOST=db
24       - WORDPRESS_DB_USER=wordpress
25       - WORDPRESS_DB_PASSWORD=wordpress
26       - WORDPRESS_DB_NAME=wordpress
27   volumes:
28     db_data:
29     wp_data:
30

```

Now we run command **docker-compose up -d** . This will start the two containers defined in the docker-compose file - db and wordpress - in detached mode (in the background).

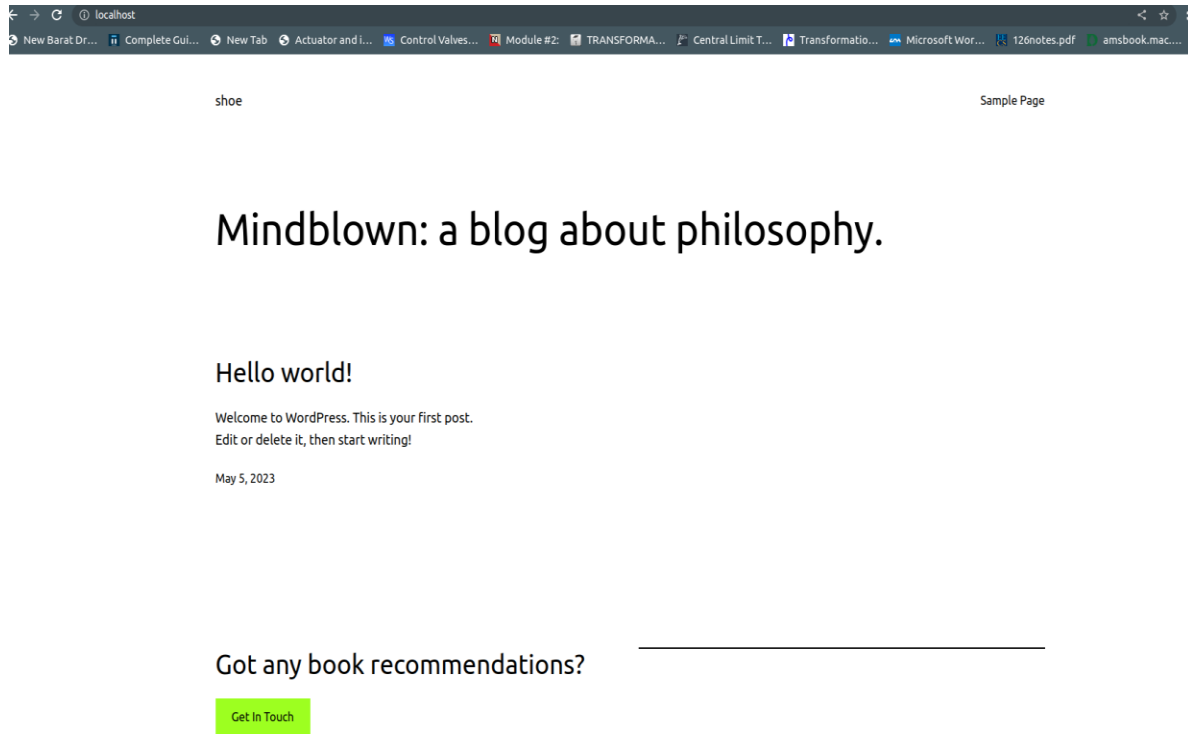
```

• (base) maviaalamkhan@all-MS-7D35:~/Downloads/day_1_microservices/docker_compose_example$ docker co
mpose up -d
WARN[0000] Found orphan containers ([docker_compose_example-phpmyadmin-1]) for this project. If yo
u removed or renamed this service in your compose file, you can run this command with the --remove
-orphans flag to clean it up.
[+] Running 2/0
 ✓ Container docker_compose_example-wordpress-1  Running
                                           0.0s
 ✓ Container docker_compose_example-db-1         Running
                                           0.0s
○ (base) maviaalamkhan@all-MS-7D35:~/Downloads/day_1_microservices/docker_compose_example$

```

STEP#2

<http://localhost:80>



Here I have already installed the word press and set up it so it looks like above.

STEP#3:

To see the logs for the system, run the following command:

docker compose logs

```

docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:04:59:12 +0000] "GET /favicon.ico HTTP/1.1" 302 390 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:04 +0000] "-" 408 0 "-" "-"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:40 +0000] "GET / HTTP/1.1" 200 10311 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:40 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:41 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:41 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:41 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:42 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:00:42 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:02 +0000] "GET / HTTP/1.1" 200 10311 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:04 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:05 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:05 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:07 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:07 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:07 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:08 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:08 +0000] "GET /hello-words/ HTTP/1.1" 200 9268 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:31 +0000] "GET /hello-words/logout/ HTTP/1.1" 404 42341 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:34 +0000] "GET /hello-words/logout HTTP/1.1" 404 42340 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:01:46 +0000] "GET /logout HTTP/1.1" 404 42341 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:02:05 +0000] "GET / HTTP/1.1" 200 10311 "http://localhost/hello-words/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:02:10 +0000] "GET /2023/05/04/hello-world/ HTTP/1.1" 200 12727 "http://localhost/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:02:10 +0000] "GET /wp-includes/js/comment-reply.min.js?ver=6.2 HTTP/1.1" 200 1701 "http://localhost/2023/05/04/hello-world/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:02:15 +0000] "GET / HTTP/1.1" 200 10310 "http://localhost/2023/05/04/hello-world/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/112.0.0.0 Safari/537.36"
docker_compose_example-wordpress-1 | 172.19.0.1 - - [05/May/2023:05:03:02 +0000] "-" 408 0 "-" "-"
(base) mavialankhan@all-MS-7D35:~/Downloads/day_1_microservices/docker_compose_examples$

```

This will display the logs for all the services running in the docker-compose environment.

STEP#4:

Modifying the yaml file by new service PHPMyAdmin service, so file should look like as:

```

1  services:
2    db:
3      image: mariadb:10.6.4-focal
4      command: '--default-authentication-plugin=mysql_native_password'
5      volumes:
6        - db_data:/var/lib/mysql
7      restart: always
8      environment:
9        - MYSQL_ROOT_PASSWORD=somewordpress
10       - MYSQL_DATABASE=wordpress
11       - MYSQL_USER=wordpress
12       - MYSQL_PASSWORD=wordpress
13     expose:
14       - 3306
15   wordpress:
16     image: wordpress:latest
17     volumes:
18       - wp_data:/var/www/html
19     ports:
20       - 80:80
21     restart: always
22     environment:
23       - WORDPRESS_DB_HOST=db
24       - WORDPRESS_DB_USER=wordpress
25       - WORDPRESS_DB_PASSWORD=wordpress
26       - WORDPRESS_DB_NAME=wordpress
27
28   phpmysadmin:
29     image: phpmysadmin
30     restart: always
31     ports:
32       - 8080:80
33     environment:
34       - PMA_ARBITRARY=db
35
36 volumes:
37   db_data:
38   wp_data:

```

STEP#5

Now we use the docker compose up -d command again.

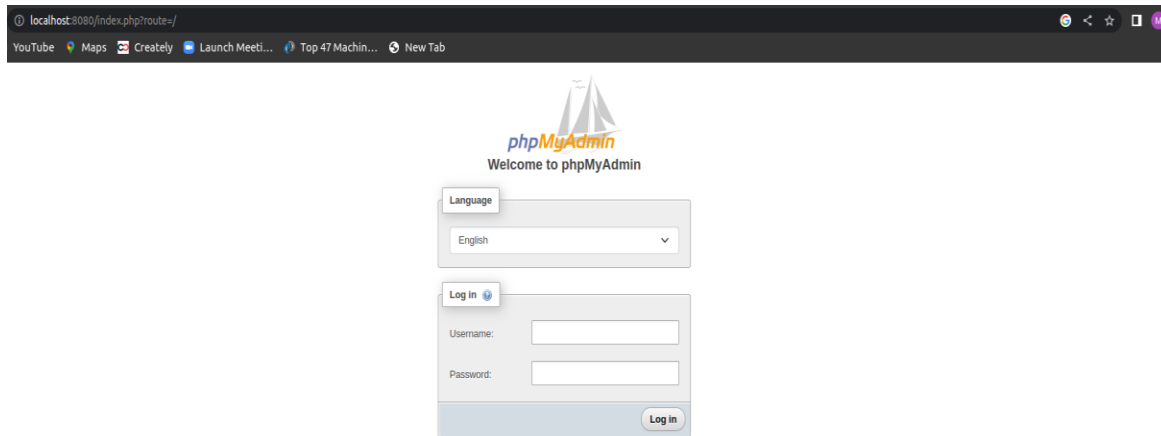
```

● (base) mavialamkhan@all-MS-7035:~/Downloads/day_1_microservices/docker_compose_example$ docker compose up -d
[+] Running 3/3
✓ Container docker_compose_example-db-1      Running
✓ Container docker_compose_example-phpmyadmin-1 Started
✓ Container docker_compose_example-wordpress-1 Running
○ (base) mavialamkhan@all-MS-7035:~/Downloads/day_1_microservices/docker_compose_example$

```

STEP#6

Visit <http://localhost:8080/> in your web browser to access the PHPMyAdmin interface and manage the database contents.



After login:

