

# **DEVOPS SEMINAR**

DOCKER



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Slug of the day: nsapoold06



Be careful, the autograder may take time to execute the playbook



Some applications should be provided.

## Task 00 - Virtual Machine

Create a new Debian 11 virtual machine without GUI.

## Task 01 - Base and docker installation

Install docker and curl binary on this machine.

## Task 02 - User & Group

Create the user marvin, who must be part of the docker group.



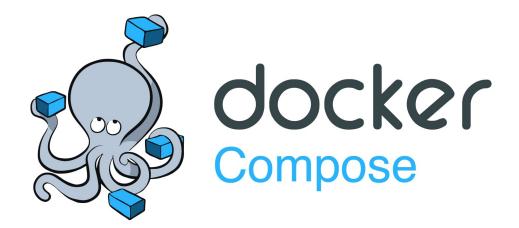
For all the following exercises, you are **NOT** allowed to use the  $_{root}$  user to launch your container. all tests will be executed with  $_{marvin}$  user

Make sure Marvin is able to run your docker-compose.yml





## **Task 03 - Docker Compose**



Create a docker-compose.yml file.
Then, integrate your three services:

- ✓ portainer
- ✓ database
- ✓ back end

## Task 04 - Portainer

To help you manage your containers, install portainer:

- ✓ for this step, you must create a service into docker compose
- ✓ change the default port of portainer to 5555;
- ✓ container name must be portainer-nsapoold06
- ✓ test the portainer dashboard at http://[IP]:5555



## Task 05 - Database

To deploy the database, use a mariadb image.

- ✓ container name must be db\_nsapoold06
- ✓ user must be marvin and password Marvin 53Xb
- ✓ database must be called nsapoold06 and the user marvin must be able to access the database nsapoold06



docker hub

## Task 06 - Back-end Flask

To deploy the back end, you can use image of your choice and create dockerfile for be able to build your custom image

- ✓ container name must be back\_nsapoold06
- ✓ available on port 80



Don't forget to change the database connection information



docker pull

## Task 07 - End

Eventually, if everything works, you should see a success about  $\mathtt{marvin}$  user on the website available at  $\mathtt{http://[ip]/api/user}$ .





