

SWE304 PROJECT STUDY 2 (2025)

Due date: 03 April 2025, class time.

In this project you will publish your project on a cloud either AWS, Azure or Google. In this project you are supposed to the following steps:

- While developing your web app., create a Dockerfile and docker-compose.yaml files in your local computer in your project folder.
- Build jar file of your application using Gradle build tool.
- After completing coding and testing of your app., obtain a jar file and containerized application using your Dockerfile.
- Create a DockerHub account, push your dockerized image to your repository DockerHub.
- Create an EC2 instance on the AWS with minimum settings and Linux OS.
- Install Docker tools on EC2.
- Copy the docker-compose.yaml file from your local computer to the EC2 instance.
- Run docker-compose command with your "docker-compose.yaml" file.
- Observe that required images are pulled from the hub and starts up correctly.
- Install Nginx and configure it as proxy web server, so the external port 80 will be forwarded to local 8080.
- Show that your application is accessible from remote browser, and everything works properly.

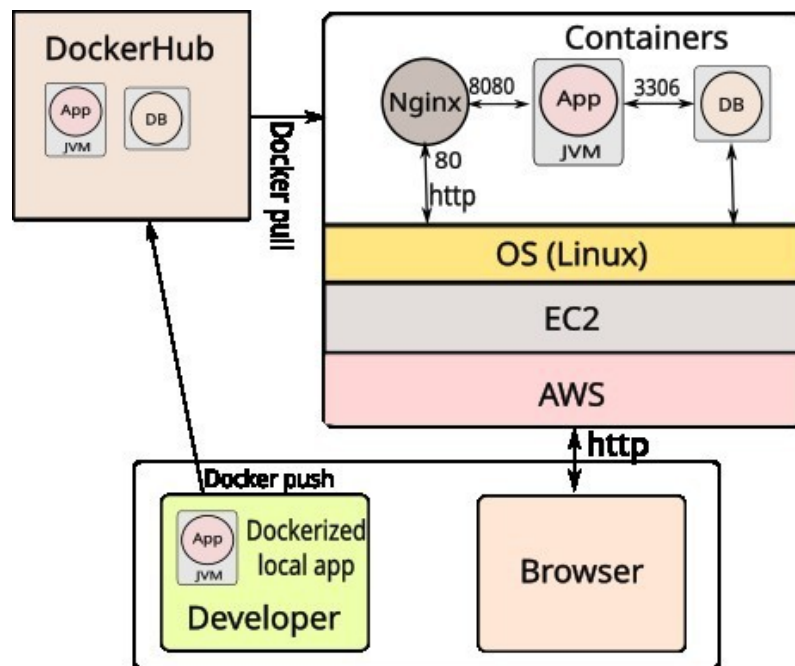


Figure 1. Required structure (layout) of the project.

Grading:

No Task	Grade
1 Project docker image is created locally.	20
2 Local image is pushed to the DockerHub.	10
3 Project and the other required images pulled from DockerHub to EC2.	20
4 Required software is installed and configured properly on the EC2.	20
5 Project is published correctly.	20
6 Everything works as described with no error, exceptions handled properly.	10

PS: Student must show up for presentation to collect points.