

SWE304 PROJECT STUDY 2 (2026)

Due date: 19 March 2026, in class.

In this project you will publish a Spring Boot (or DotNet Core) web project using container technologies. Follow the specifications given below:

- Build a jar (or zip) file of your application using Gradle (MSBuild) build tool.
- Create a container image file of web application in your local computer.
- Push the container image to your Docker-Hub account.
- Login your cloud account, and create a virtual machine (or an EC2 instance) with open port 80.
- Copy (or ftp) your Docker Compose yaml config file to the cloud instance.
- Pull your application and DB from Docker-Hub (you may do this automatically as well).
- Install Nginx and configure it as reverse proxy web server, so the external port 80 will be used for your application.
- Show that your application is accessible from local browser via public IP, and everything works properly.

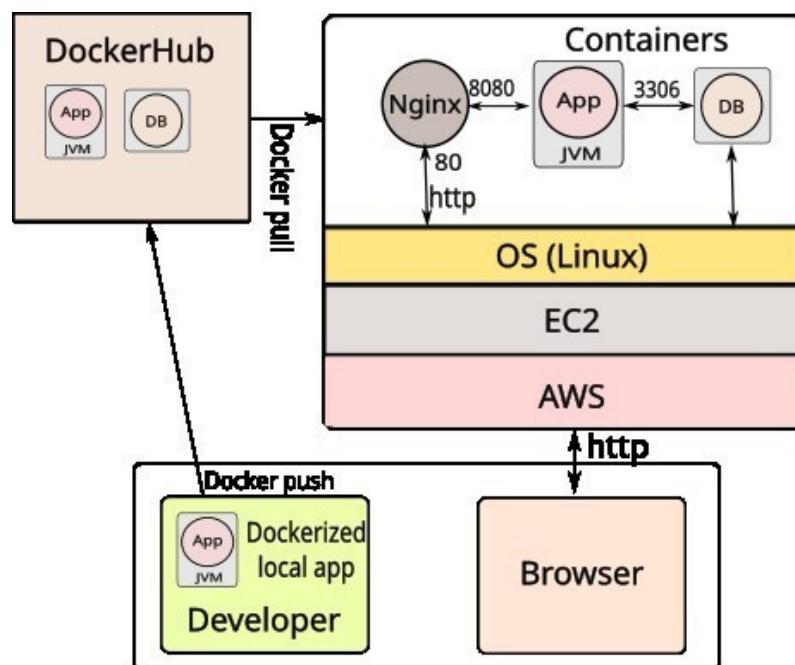


Figure 1. Required structure (layout) of the project.

Grading:

No	Tasks	Grade
1	Docker image is created locally.	20
2	Local image is pushed to the DockerHub.	10
3	Required images pulled from DockerHub to cloud instance.	20
4	Required software is installed and configured properly on the cloud instance.	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.