# SWE304 PROJECT STUDY 3 (2025)

Due date: 08 May 2025, class time.

In this project, you are expected to create a Github workflow yaml file with proper actions to deploy a web application to AWS or AZURE cloud as jar file and to the Dockerhub as Docker image (see Figure 1).

You can use the web application developed in the previous projects. In this project, you are expected to create a proper CI/CD pipeline on Github using the actions. The triggering eventa are "**developer push**" or "**pull request resulted with merge**" on GitHub, the followings has to happen consecutively without manual interventions:
- A new jar file must be created on Github,
- This jar file must be copied (or ftp'ied) to the cloud (AWS or Azure).
- Docker image must be created on Github
- Dockerhub login must be done automatically using Github secrets.
- The docker image must be pushed to the Dockerhub,
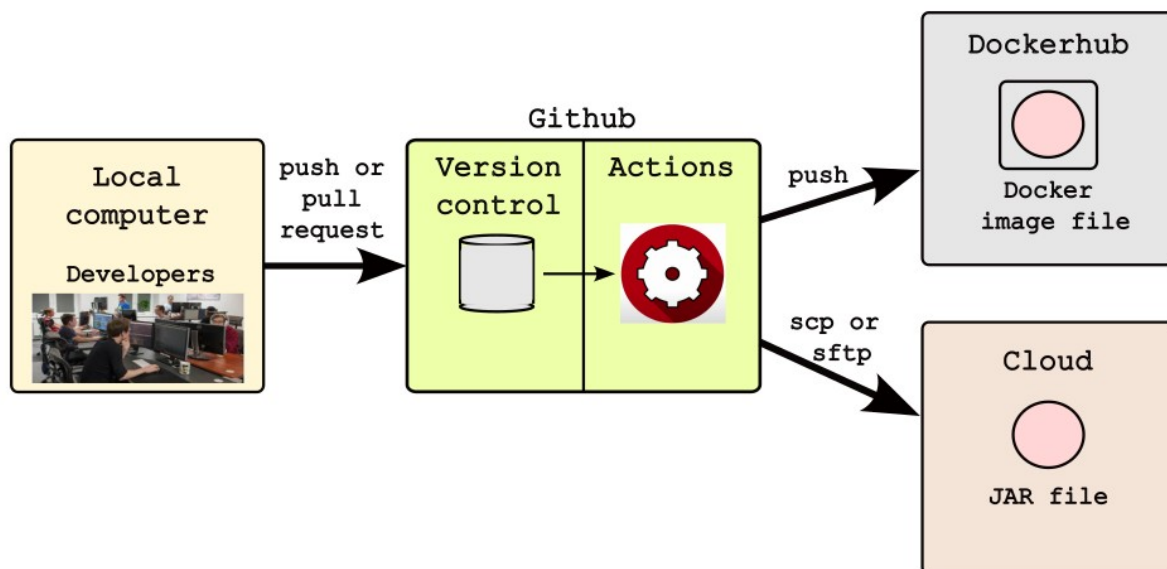
Figure 1. Project 3 block diagram.

PS: You do not have to show that your application is working on the cloud. There is no need to have a database connectivity in your application.

Grading:

No	Tasks (Jenkins labeled tasks must be done by Jenkins server)	Grade
1	Have your local webapp ready for update & push or pull request to GitHub repository.	10
2	Create workflow action script in your workflow for making JAR on GitHub.	20
3	Add an action script to your workflow to generate a docker image on GitHub.	20
4	Add action script to your workflow to login to Dockerhub and push the image.	20
5	Add action script to your workflow to login to cloud and copy the JAR file.	20
6	Show that workflow file and CI/CD pipeline works as expected.	10

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