Program 5: Demonstrate CI integration by running jenkins in a docker container
File structure:
/Dockerfile
/docker-compose.yml
Create folder >> mkdir lab5 >> cd lab5

Dockerfile
FROM jenkins/jenkins:lts
#change to root user to install the packages
USER root
RUN apt-get update && apt-get install -y docker.io
USER jenkins

docker-compose.yml
version: "3.8"

services:
  jenkins:
    build: .
    container_name: jenkins_ci
    ports:
      - "8080:8080"
      - "50000:50000"
    volumes:
      - jenkins_home:/var/jenkins_home
      - /var/run/docker.sock:/var/run/docker.sock

volumes:
  jenkins_home:

Build and run the containers

Using Docker File
        #sudo docker build -t lab5 .
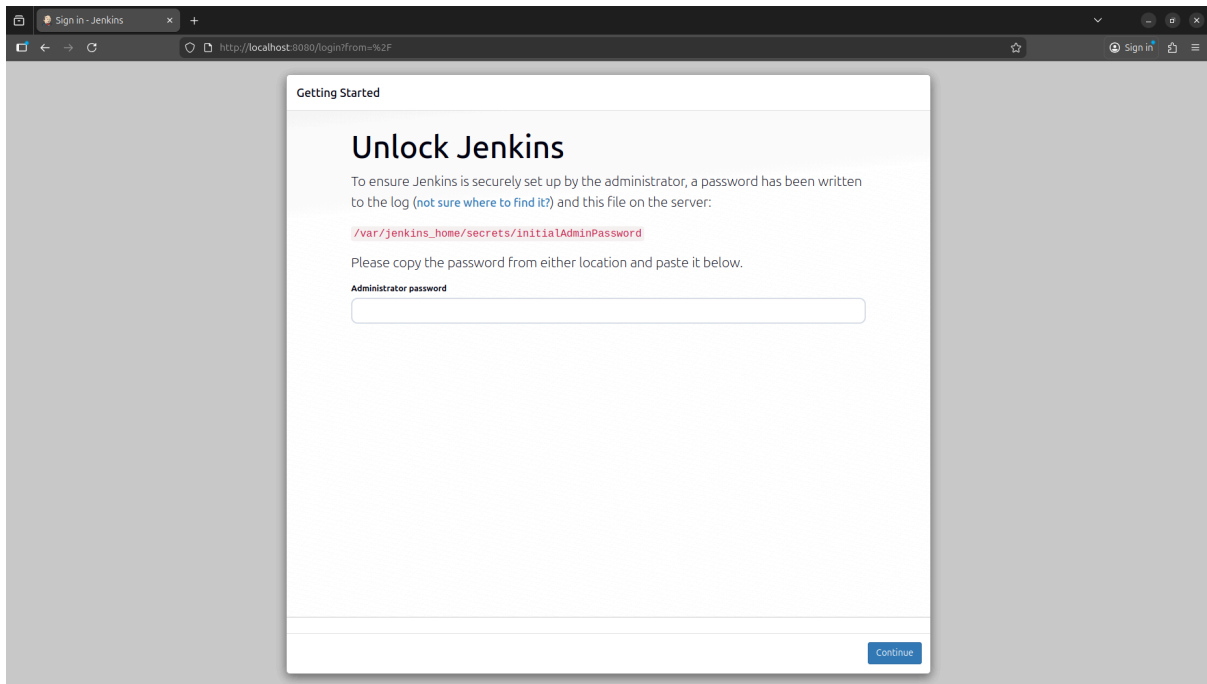   #sudo docker run -p 8080:8080 -p 50000:50000 --name jenkins_ci lab5

Go to browser and type http://localhost:8080 to see the output

Using docker-compose.yml
#sudo docker compose up

Go to browser and type http://localhost:8080 to see the output

See the list of containers and volumes which were created
#sudo docker container ls -a
#sudo docker volume ls