Docker Lab2

1. Problem 1:
   Create bridge network with subnet 192.168.0.0/24.
   Run 2 containers and attach containers to this network.
   Create another bridge network with subnet 10.5.0.0/24.
   Run any container and attach it to the new network.
   Make sure that the containers at different network can't ping each other
2. Problem 2:
   Create static html file
   Write Dockerfile to build image based on httpd to host the html file and specify the following
   Copy the html file.
   Copy a new configuration file to listen on port 9999 instead of 80
   Open the port 9999 in the container
   Add environment variable CONTAINER with value docker .
   Add startup command to echo the variable
3. Problem 3:
   Create a docker compose to setup web container(flask app from lab1 if not exist) and nginx , mysql , the app container depends on nginx and mysql
   Add volume for mysqldb
4. Problem 4:

Create a Dockerfile to deploy weather-app application(https://github.com/sabreensalama/Good_Reads_App):

1. You will use node:alpine as the base image.
2. create a directory for the source code: /node/weather-app.
3. Add the code from src to /node/weather-app on the image.
4. Set /node/weather-app as the working directory.
5. Execute an npm install to install the dependencies.
6. Create an argument called APP_VERSION that will set the version of the application.
7. Set an environment variable called NODE_ENV and set it to production.
8. Copy /node/weather-app from the source build stage to /var/weather-app.
9. Set /var/weather-app as the working directory.
10. Expose port 3000.
11. Set ./bin/www as the entrypoint.

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12. Build the image.

5. Problem 5:
   Use docker compose to deploy ghost platform (image: ghost:1-alpine)(Ghost is a free and open source blogging platform written in JavaScript)
   Use mysql database instead of sqlite