Part - 1

Run postgresql database is docker with data persistence (using volumes).
Requirements:

1. Image to be used - postgres:13.2
2. Port on which the container will be bind to host - 5434
3. User - pg_assignment
4. Password - pg_password
5. Database - assignment
6. Create a table user under public schema with columns - first_name(varchar64), last_name(varchar64), age(int), phone(bigint), address(text)
7. Populate the use table with some random data (at least 3 rows)

Note:

1. Refer the doc for setup - postgres (docker.com)
2. Use DBeaver Community | Free Universal Database Tool for visualization / basic operations of the database.

Part - 2

1. Write an application (in your preferred language- go/python/node.js/c++/java… etc) which will connect with the created database, read all the records present in the user table, and print all the records stdout/console/terminal.
2. Don't hard code the database credentials or any details. Try to use env variables to provide the database host:port, password, user etc to your application.
3. Dockerize the application you have created.
4. Push the image into docker hub.
5. Keep the required environment variables in a .env file and try to run the docker image using --env-file option.

Part - 3

1. Try repeat the above set up, this time using docker network. Connect your application and the database without using any kind of IP address.

Evaluation:

Everyone will share their screen, will walk us through the setup along, and with a demo of the final result of the application (data displaying the stdout of the created application).