Assignment 1: Software engineering for robots

a.

I change some commands in the *Dockerfile*.

In the folder *opendlv-logic-primechecker_A1a_codes*

1. I use *ubuntu:22.04* as the builder and I use *apk* instead of *apt-get* to install packages.
2. I delete *RUN apk update && *   and *apt-get install libcluon* to install *libcluon.*

         *apk --no-cache add *

           libstdc++

3. In Deploy part, I add *WORKDIR /opt/sources* to let the Docker run starting from the /opt/sources folder

b.

My **b** and **c** source code are in the *opendlv-logic-tianshuo_A1b&c_codes* folder and there are comments for the code inside
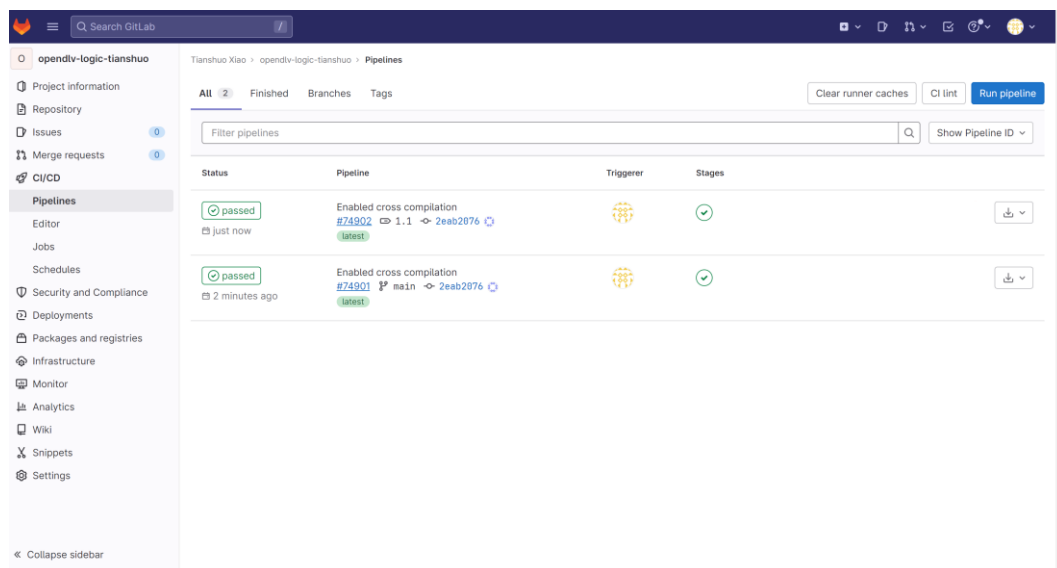
c.

In order to run my microservice, you can type the following command:

docker run --rm -ti --net=host registry.git.chalmers.se/tianshuo/opendlv-logic-tianshuo:1.1

The screenshots as following:

Pipeline

GitLab container registry

opendlv-logic-tianshuo ⓘ

2 tags · Cleanup disabled · Last updated 23 minutes ago

Filter results

Name ⌄

☐ 2 tags   Delete selected

☐ 1.1 ⧉ ⚠   **Published just now**
0 bytes   Digest: Not applicable.

☐ latest ⧉ ⋯   **Published 39 minutes ago**
6.91 MiB   Digest: 0f40b0c

◆ **Enabled cross compilation**   ✓   2eab2076 ⧉
  tianshuo authored 7 minutes ago

main ⌄   opendlv-logic-tianshuo /   + ⌄   Find file   Web IDE   ⬇ ⌄   Clone ⌄

📄 README   📄 CI/CD configuration   ⊞ Add LICENSE   ⊞ Add CHANGELOG   ⊞ Add CONTRIBUTING

⊞ Add Kubernetes cluster   ⊞ Add Wiki   ⚙ Configure Integrations

Name	Last commit	Last update
🦊 .gitlab-ci.yml	Enabled cross compilation	7 minutes ago
📄 CMakeLists.txt	A1	53 minutes ago
🐳 Dockerfile	A1	11 minutes ago
Ⓜ README.md	Readme document	1 week ago
h↔ cluon-complete.hpp	A1	53 minutes ago
📄 messages.odvd	A1	53 minutes ago
C++ opendlv-logic-tianshuo.cpp	A1	53 minutes ago

📄 **README.md**

opendlv-logic-tianshuo

Assignment 1 OpenDLV microservice

Two terminals' results

Left terminal:

```
Terminal - opendlv@d2bb2156eb05: ~/data/opendlv-logic-tianshuo

File  Edit  View  Terminal  Tabs  Help

Writing objects: 100% (1/1), 159 bytes | 159.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
remote: MAX: 1000000, CURRENT: 388
To https://git.chalmers.se/tianshuo/opendlv-logic-tianshuo.git
 * [new tag]          1.1 -> 1.1
opendlv@d2bb2156eb05:~/data/opendlv-logic-tianshuo$ sudo docker run --rm -ti --net
=host registry.git.chalmers.se/tianshuo/opendlv-logic-tianshuo:1.1
Unable to find image 'registry.git.chalmers.se/tianshuo/opendlv-logic-tianshuo:1.1
' locally
1.1: Pulling from tianshuo/opendlv-logic-tianshuo
f56be85fc22e: Already exists
dc7467007513: Pull complete
46ecf85062d4: Pull complete
Digest: sha256:ee783bd68e573b0cc06fc2be7b8573ccb992e0178f7368483428f0980534585b
Status: Downloaded newer image for registry.git.chalmers.se/tianshuo/opendlv-logic
-tianshuo:1.1
Enter a number to request ground speed:
2.5
6.25
Enter a number to request ground speed:
3.5
8.75
Enter a number to request ground speed:
```

Right terminal:

```
Terminal - opendlv@d2bb2156eb05: ~

File  Edit  View  Terminal  Tabs  Help

opendlv@d2bb2156eb05:~$ sudo docker run --rm -ti --net=host registry.git.chalmer
s.se/tianshuo/opendlv-logic-tianshuo:1.1
Enter a number to request ground speed:
6.25
Received ground speed reading: 6.25
Received ground speed reading: 6.25
8.75
Received ground speed reading: 8.75
Received ground speed reading: 8.75
```