Assignment 2: Software engineering for connected fleets

Tianshuo Xiao

tianshuo@chalmers.se

MPMOB

a). OpenDLV tutorials

First, I follow the OpenDLV tutorials, got the following results:

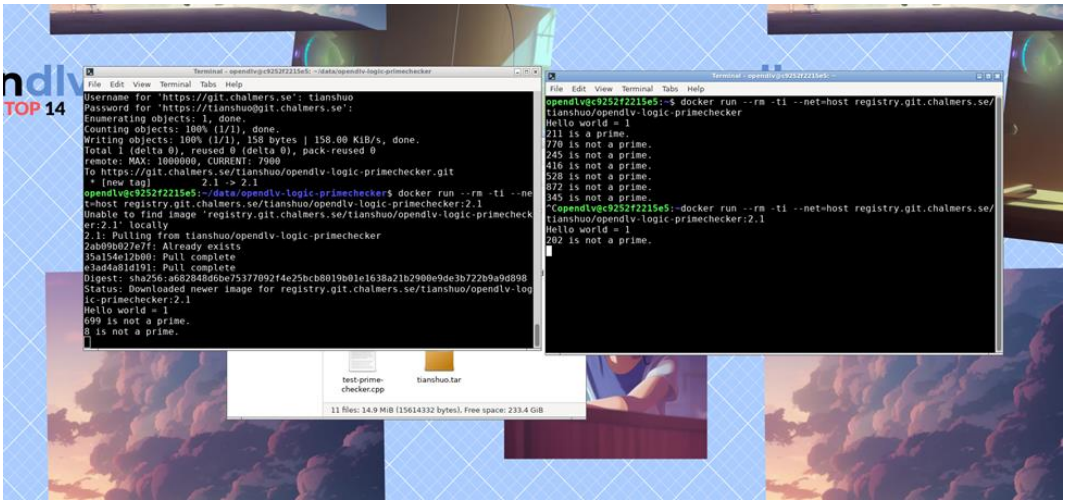


Figure 1.1 Final results

Then, I changed the ***Dockerfile***, which can implement the same function as Alpine Linux, but I change it with Ubuntu as a base image instead. The following picture is my ***Dockerfile*** screenshot from my ***Gitlab***.

main ▾ opendlv-logic-primechecker / Dockerfile

Dockerfile 507 bytes

```
1  # Build
2  FROM ubuntu:22.04 as builder
3
4  RUN apt-get update
5  RUN apt-get install -y build-essential cmake software-properties-common
6  RUN add-apt-repository -y ppa:chrberger/libcluon
7  RUN apt-get update
8  RUN apt-get install libcluon
9
10 ADD . /opt/sources
11 WORKDIR /opt/sources
12
13 RUN mkdir /tmp/build && cd /tmp/build && \
14     cmake /opt/sources && \
15     make && make test && cp helloworld /tmp
16
17 # Deploy
18 FROM ubuntu:22.04
19 WORKDIR /opt/sources
20 COPY --from=builder /tmp/helloworld /usr/bin
21 CMD ["/usr/bin/helloworld"]
22
23
```

Figure 1.2 Dockerfile screenshot

b).CI/CD

Run the following command:

docker login registry.git.chalmers.se

docker run --rm -ti --net=host registry.git.chalmers.se/tianshuo/opendlv-logic-primechecker:2.1

you can also run

docker compose up

in the folder which contains ***docker-compose.yml*** file

version: '3'

services:

prime-checker-0:

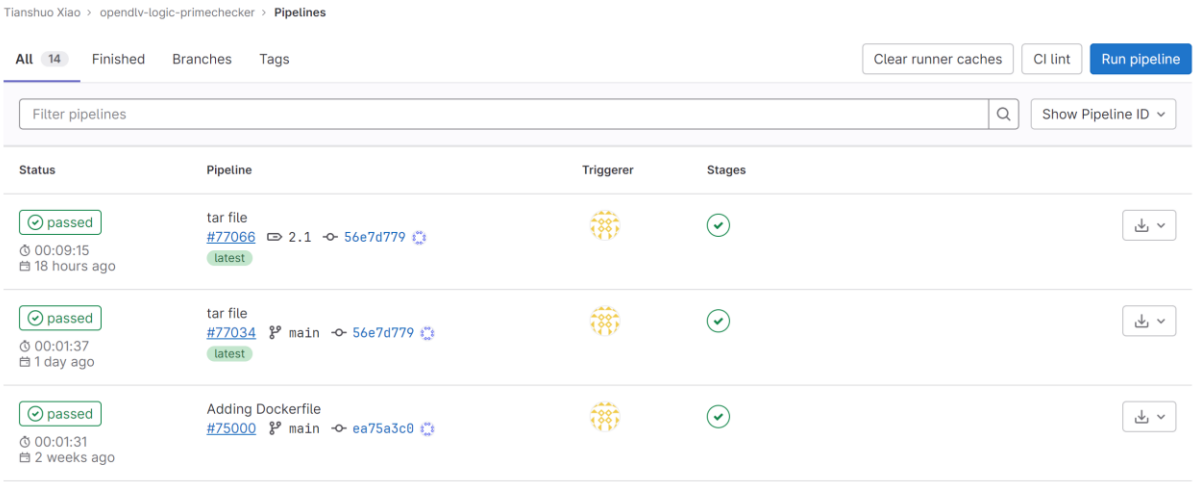
image: registry.git.chalmers.se/tianshuo/opendlv-logic-primechecker:2.1

network_mode: "host"

command: "/usr/bin/helloworld"

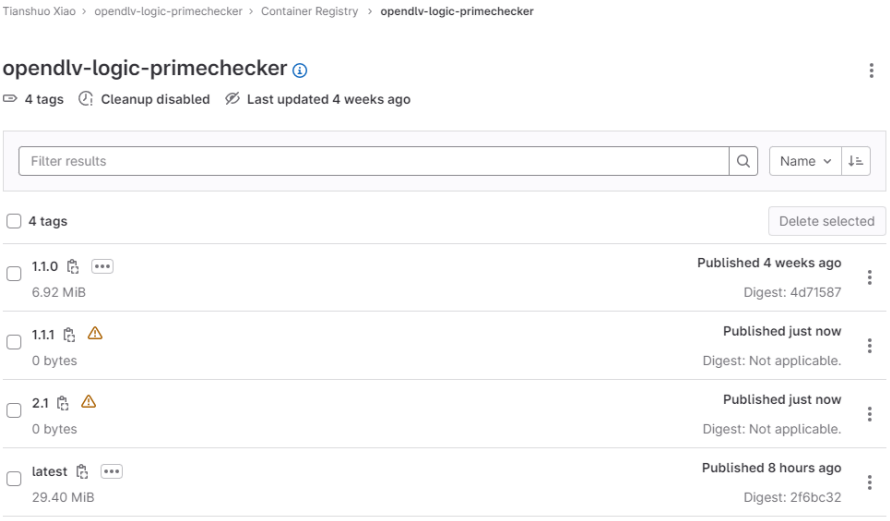
The screenshots as following:

Pipeline



tar file

GitLab container registry



Tianshuo Xiao › opendlv-logic-primechecker

opendlv-logic-primechecker

Project ID: 11034

Star 0 Fork 0

14 Commits 2 Branches 5 Tags 8.1 MB Project Storage

tar file
tianshuo authored 9 hours ago
56e7d779

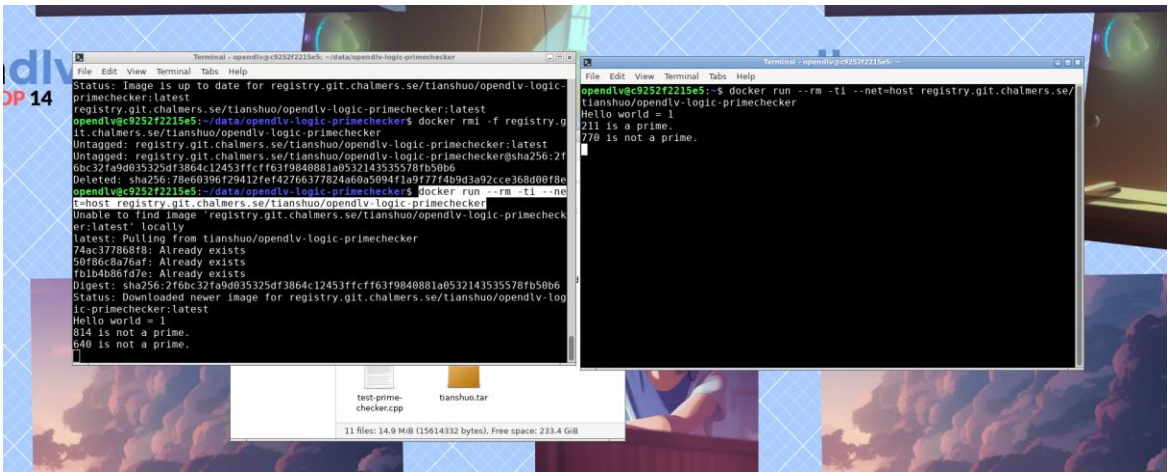
main opendlv-logic-primechecker / Find file Web IDE Clone

README CI/CD configuration Add LICENSE Add CHANGELOG Add CONTRIBUTING
Add Kubernetes cluster Add Wiki Configure Integrations

Name	Last commit	Last update
.gitignore	Initial version	1 month ago
.gitlab-ci.yml	Enabled cross compilation	4 weeks ago
CMakeLists.txt	Initial version	1 month ago
Dockerfile	Adding Dockerfile	2 weeks ago
README.md	Improved documentation	1 month ago
catch.hpp	Initial version	1 month ago
cluon-complete.hpp	Initial version	1 month ago
helloworld.cpp	Removed the need for manual input	1 month ago
messages.odvd	Initial version	1 month ago
prime-checker.cpp	Initial version	1 month ago
prime-checker.hpp	Initial version	1 month ago
test-prime-checker.cpp	Initial version	1 month ago
tianshuo.tar	tar file	9 hours ago

README.md

opendlv-logic-primechecker

A highly useful microservice.

Two terminals' results