**Docker deployment:**

Summary: We are going to deploy both the DB and the GUI server through docker. The GUI server is obtained via “omoponfhir-main-v54-r4” repo on GitHub (<https://github.com/omoponfhir/omoponfhir-main-v54-r4>) and the Postgres DB is obtained via the “OMOP-5.4-PostgresSQL” repo on GitHub (<https://github.com/SmartChartSuite/OMOP-5.4-PostgreSQL>). In order to make sure that the docker deployment are connected and can communicate we must make a docker network and ensure that both deployments run on that network.

1. Make a docker network. In terminal run “docker network create {name of network}” command to create a network.
2. Clone the “omoponfhir-main-v54-r4” git repo to your machine
   1. Go inside the omoponfhir-r4-server sub-folder and edit the POM.xml file
   2. Make sure to add the following dependencies to it:

<dependency>

<groupId>org.apache.logging.log4j</groupId>

<artifactId>log4j-api</artifactId>

<version>2.8.2</version>

</dependency>

<dependency>

<groupId>org.apache.logging.log4j</groupId>

<artifactId>log4j-core</artifactId>

<version>2.8.2</version>

</dependency>

1. For the environment variables you can create a separate file and when you run the container you can call that file or add them to the Dockerfile in the main folder. I have added the environment variables to the Dockerfile.

ENV JDBC\_URL=jdbc:postgresql://omop54-postgres:5432/omop54

ENV JDBC\_USERNAME=postgres

ENV JDBC\_PASSWORD=password

ENV JDBC\_DRIVER=org.postgresql.Driver

ENV JDBC\_DATASOURCENAME=org.postgresql.ds.PGSimpleDataSource

ENV JDBC\_POOLSIZE=5

# And, belows are schema naems for data and vocabulary in the database specified above.

ENV JDBC\_DATA\_SCHEMA=public

ENV JDBC\_VOCABS\_SCHEMA=public

ENV SMART\_INTROSPECTURL=http://localhost:8080/smart/introspect

ENV SMART\_AUTHSERVERURL=http://localhost:8080/smart/authorize

ENV SMART\_TOKENSERVERURL=http://localhost:8080/smart/token

ENV AUTH\_BEARER=12345

ENV AUTH\_BASIC=client:secret

ENV FHIR\_READONLY=False

ENV SERVERBASE\_URL=http://localhost:8080/fhir

ENV LOCAL\_CODEMAPPING\_FILE\_PATH=

ENV MEDICATION\_TYPE=code

ENV TARGETDATABASE=

ENV OMOPONFHIR\_NAME=OMOPFHIRR4

ENV BIGQUERYDATASET=

ENV BIGQUERYPROJECT=

ENV JDBC\_DATA\_SCHEMA=public

ENV JDBC\_VOCABS\_SCHEMA=public

1. Build your GUI server image by running “ sudo docker build -t omoponfhir .”
   1. Might not need sudo.
2. Clone the “OMOP-5.4-PostgresSQL” git repo to your machine
3. Build your DB image by running “docker build -t omop54 .”
4. Run your DB image by doing “docker run --network {your network name} -e POSTGRES\_PASSWORD=password -e CONSTRAINTS=true -e OMOP\_ON\_FHIR=true -v /path/to/your/vocab:/VOCAB omop54
   1. Note if you put your vocab folder in the main folder then “-v ./vocab:/VOCAB” should work
5. Run your GUI server image by doing “docker run --network {your network name} --name omoponfhir -p 8080:8080 -d omoponfhir:latest

**Docker CLI Commands**

\*Might have to use “sudo docker” if docker doesn’t work

docker images = List all Docker images

docker ps = List all running containers

docker-compose up

docker-compose down

docker pull {name}:{tag} = Pull an image from a registry

docker run {name}:{tag} = Creates a container from given image and starts it

docker run -d {name}:{tag} = Creates and runs container in background and prints the container ID

docker run -d -p {HOST\_PORT}:{CONTAINER\_PORT}= Exposes port to host port

docker stop {container} = Stops one or more running containers

docker start {container} = Start one or more stopped containers

docker run --name {name}:{tag} = Assign a name to the container

docker build -t {name}:{tag} = Builds a docker image from a Dockerfile and set name+tag

docker network create {name of network}

**Server Notes:**

**TERMINAL COMMANDS:**

Connect to postgres: sudo docker exec -it {your omop db docker container} psql -U postgres -d omop54

Restart front-end: sudo docker restart omop-on-fhir-student-demo-omoponfhir-1

Check Logs: sudo docker logs -f omop-on-fhir-student-demo-omoponfhir-1

Restart: sudo docker restart omop-on-fhir-student-**demo**-omoponfhir-1

IN omop54 DB:

\dt : View all table

\d table\_name : View info about table

ALTER TABLE f\_person ALTER COLUMN person\_id TYPE BIGINT; : To change person\_id datatype to BIGINT