

Getting started with the common data model with OMOP on FHIR

David Yue, Samsung NEXT, Senior Data Engineer

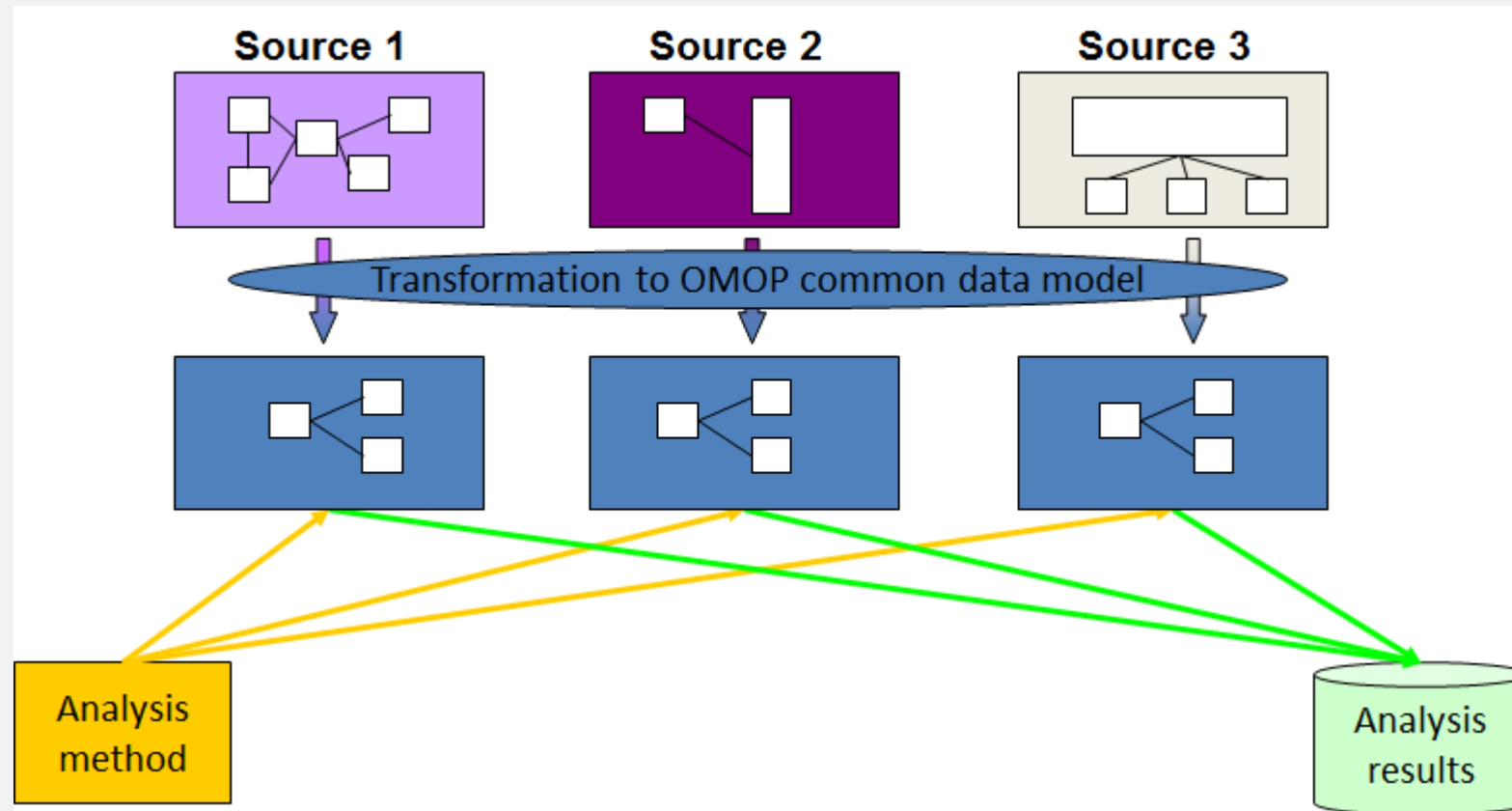


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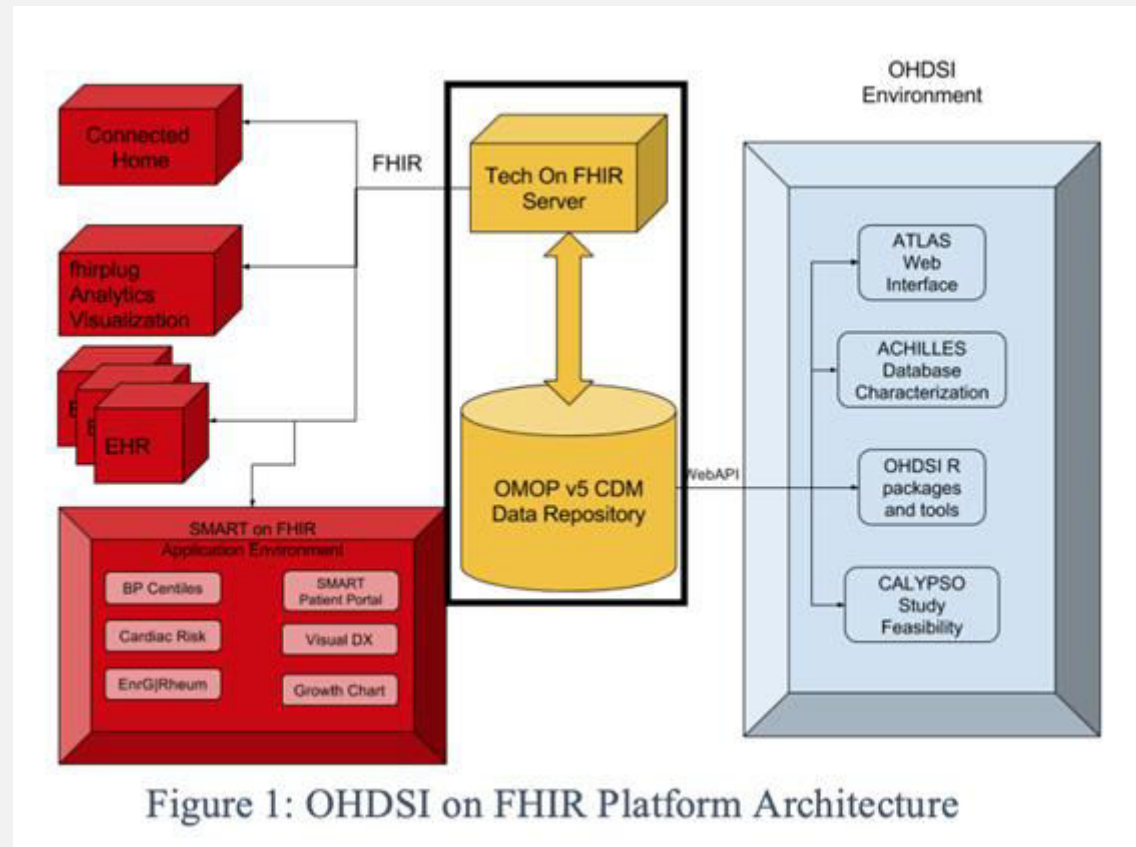
Outline for Exercise

- Docker environment setup
- Stand up relational database with Postgres with sample data
- Start Tester UI interface for exploring with RESTful API endpoint
- Query data with pgAdmin

OMOP Common Data Model



OMOP on FHIR project from Georgia Tech Whitepaper



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Git Repos to clone

- <https://github.com/gt-health/smart-platform-docker/tree/hdap-devops>
- <https://github.com/gt-health/GT-FHIR2>

Files of interest

`./smart-platform-docker/smart-postgresql/docker-compose.yml`

`./smart-platform-docker/smart-postgresql/Dockerfile`

`./smart-platform-docker/smart-postgresql/create_user.sql`

`./GT-FHIR2/omoponfhir-stu3-server/src/main/webapp/WEB-INF/web.xml`

`./GT-FHIR2/Dockerfile`

Postgres database with OMOP v5 schema

```
git clone https://github.com/gt-health/smart-platform-docker.git
```

```
cd smart-postgresql
```

```
docker-compose up
```


GT-FHIR2 Project

```
git clone https://github.com/gt-health/GT-FHIR2.git
cd GT-FHIR2
vi Dockerfile

# Uncomment ENV and update with connection string for JDBC
connection
# ENV
JDBC_URL=jdbc:postgresql://host.docker.internal:5438/postgres
JDBC_USERNAME=omop_v5 JDBC_PASSWORD=i3lworks
```

Configure web.xml readOnly flag

Modify `GT-FHIR2/omoponfhir-stu3-server/src/main/webapp/WEB-INF/web.xml`

```
<init-param>  
    <param-name>readOnly</param-name>  
    <param-value>False</param-value>  
</init-param>
```

Start GT-FHIR2

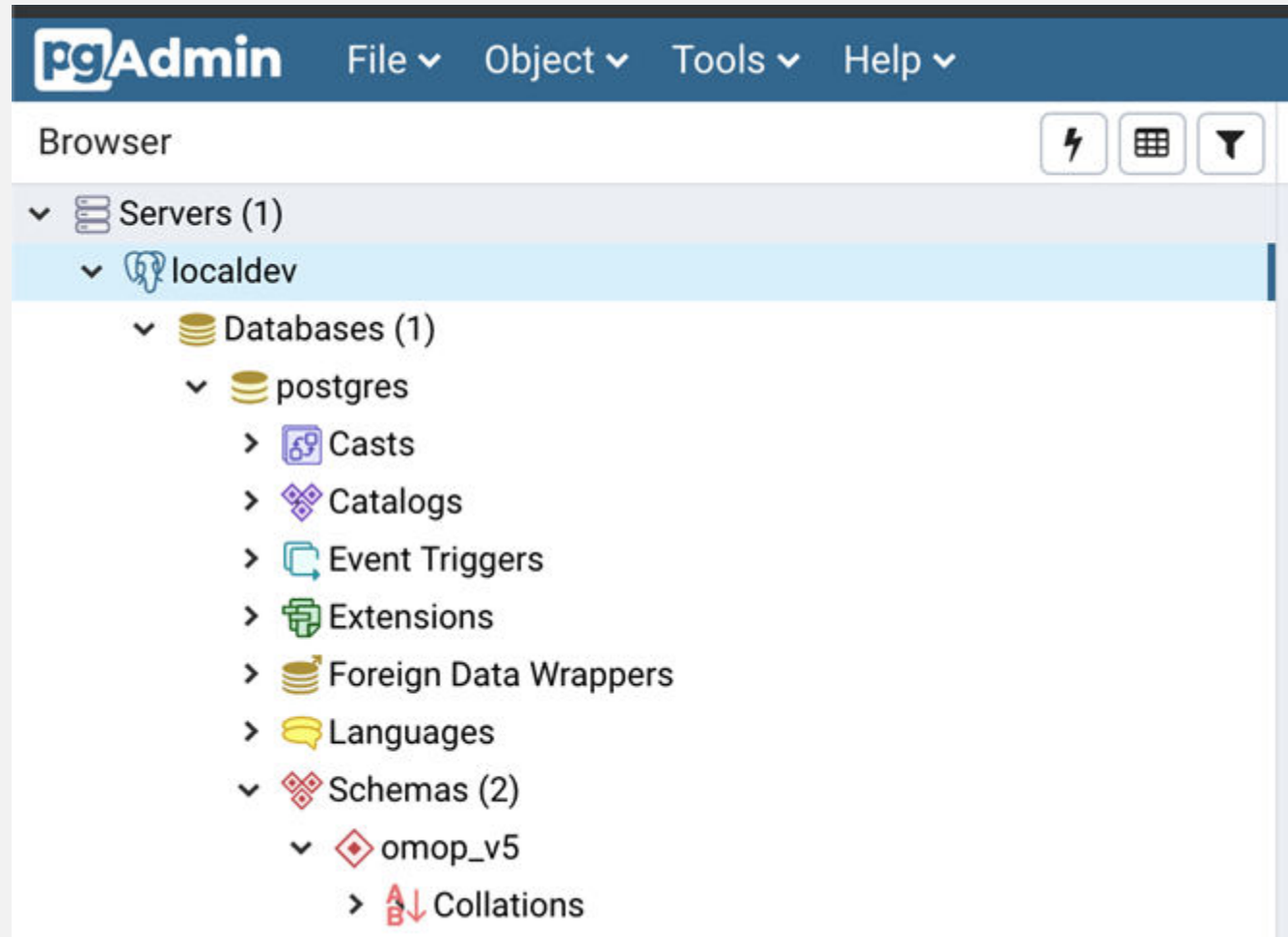
```
cd GT-FHIR2  
docker-compose up --build
```

Launch local Tester Utility and local API endpoint

UI - <http://localhost:8080/gt-fhir/tester/> (be sure to include trailing “/”)

API - <http://localhost:8080/gt-fhir/fhir>

Connect to underlying database



Sample Query in Postgres

```
SELECT
    p.person_id,
    fp.family_name,
    fp.given1_name
FROM omop_v5.person p
JOIN omop_v5.f_person fp
ON p.person_id = fp.person_id;
```

Thank You

Additional Information

Status: Details available in <http://omoponfhir.org/>

Contributors:

- Lead: Myung Choi
- DevOp/Deployment: Eric Soto
- Docker/VM Management: Michael Riley