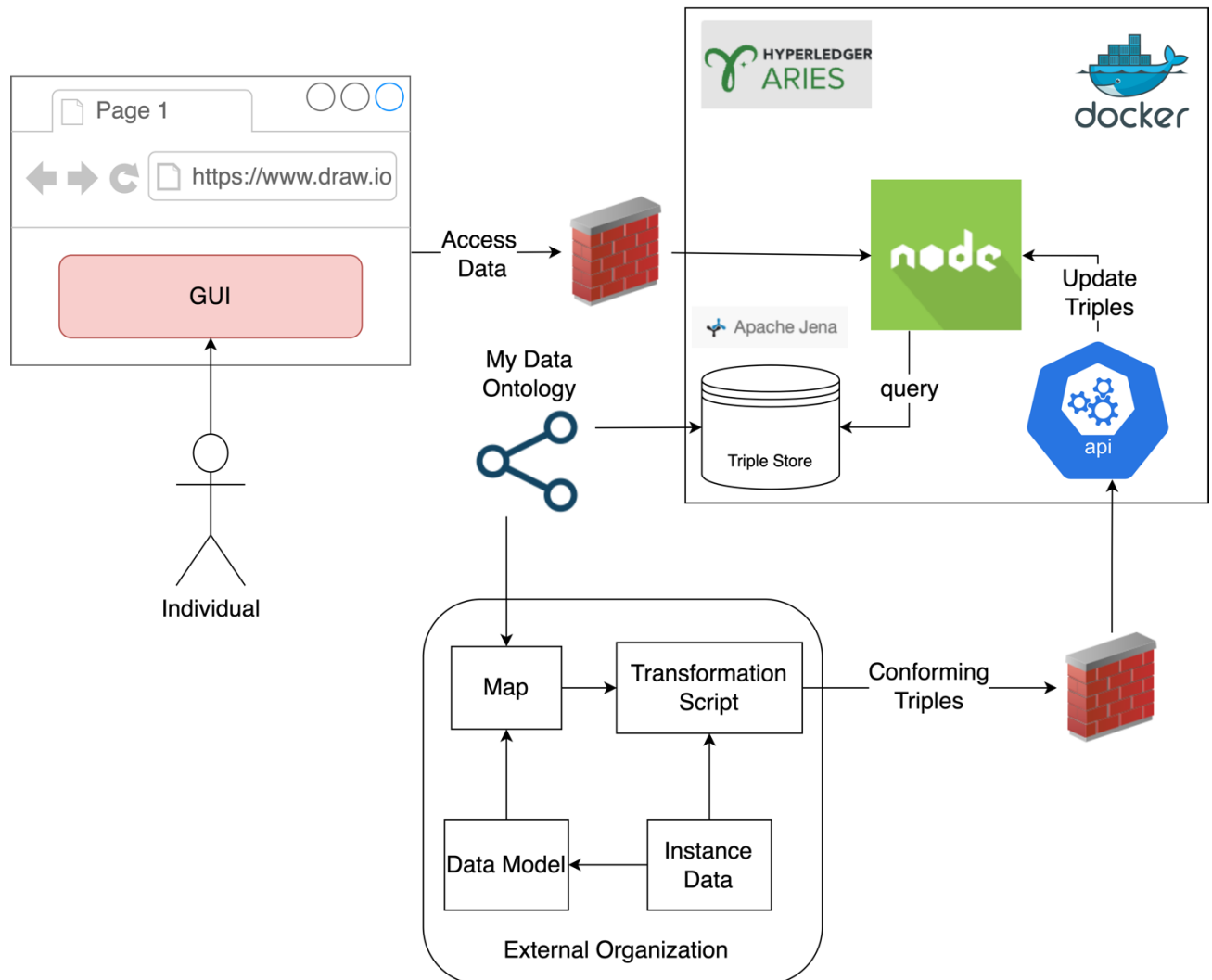


I-AM Project (KGL)

Aries-Personal Data Store Architecture

13 May 2022

Casey Rock



Task for Developers

1. Create a Docker Container with Apache Jena Fuseki (triple Store) installed
 - a. Link to download Fuseki <https://jena.apache.org/documentation/fuseki2/>
 - b. Requirements
 - i. Pull From the LTS Ubuntu container https://hub.docker.com/_/ubuntu
 - ii. Use docker-compose and allocate volumes for the triples store
 - c. Tests
 - i. Make sure we can read/write triples to the Fuseki server
2. Create a GUI using a frontend framework (React, Angular)
 - a. The GUI must allow individuals the ability to query their data.
3. Install Hyperledger Aries onto the container and create unique credentials for the individual
4. Create a node server to the host the Frontend. Also, create an API that allows existing organizations to update a person's data.
5. Create a transformation script that takes the mapping model and the instance data and outputs triples that conform to the "My Data Ontology."
6. Create a UFW firewall for the docker container
 - a. Allow Port 8080 (Node server)
 - i. Allow inbound
 - ii. Allow outbound
 - iii. Forward
 - b. Drop all other input and output (no one can access the triple store from outside the container)
7. Find Existing Data Models that the organization uses to store PII. Create a registry of data models.
8. Pentest the design
 - a. Provide a security audit on the design

