User groups:

Healthcare organizations: Including hospitals and doctors offices, this group may host the end points for healthcare workers to login. A healthcare worker needs to be a part of a validated healthcare organization on the network to participate in the private ledger. This is an additional measure of verification and security for customer data.

Healthcare workers: each individual healthcare worker would have their own account. This group includes nurses, doctors, physicians, or other individuals who need access to patient data.

Patients: every upload containing patient information needs to come from a healthcare worker and be sent to the patient. The patient will then control the information, and healthcare workers who did not author the data will not have permission to query that patient’s records. A request for information can be sent to the patient for them to review. Alternatively, the request for information can be sent to the healthcare worker who uploaded the initial information. If the request is granted, the healthcare worker who sent the request will be given permission to query the patient’s data they requested.

User Stories:

As a healthcare organization, I want to be able to register and verify employees on the blockchain.

An employee who is verified should get permission to send requests for information, and upload information regarding patients.

As a healthcare organization, I want to be able to remove an employee when they leave and remove their permissions to view patient information.

When an employee leaves the organization, they should not be able to view patient data.

As a healthcare worker, I want to be able to send requests for specific patient data to other healthcare workers.

The status of the request can be viewed as accepted, denied, or processing.

As a healthcare worker, I want to be able to accept or deny requests for patient data sent by other healthcare workers.

Healthcare worker should receive an alert or notice if they have a pending request for data access.

As a healthcare worker, I want to be able to submit patient data to the blockchain.

As a patient, I want to be able to query my health information.

A patient should be able to query information regarding their own account by viewing transactions with their account. A patient should not be able to view the data of other patients.

As a patient, I want to be able to accept or deny requests for my data sent by other healthcare workers.

The status of the request can be viewed as accepted, denied, or processing.

Iroha Model:

Domains: Healthcare Organization

Roles: Healthcare worker, Patient

Stores data: Medical records and Patient information