Link git.hub:

**https://github.com/Leamrn/exam\_HI**

Screenshot of the result:

1. Create a route ('/') that outputs HTML and shows a grid of images as a table with 4 images per row, include annotations of Patient ID, Date, and Age

Une image contenant texte, capture d’écran, Graphique, diagramme

Description générée automatiquement

Une image contenant capture d’écran, texte

Description générée automatiquement

Une image contenant capture d’écran, texte

Description générée automatiquement

1. Create a filterable route that outputs HTML and shows all patients images ('/patient/<patient\_id>')

Une image contenant texte, capture d’écran

Description générée automatiquement

Une image contenant capture d’écran, cercle, Caractère coloré

Description générée automatiquement

1. Create a Webservice with a first route ('/api') to serve all DICOM metadata as JSON. At least include Patient ID, Date, Age, Link to image on disk. You do not need to make this data interoperable

Une image contenant texte, capture d’écran, logiciel, nombre

Description générée automatiquement

1. if you had to make it interoperable, how would you go about it? Which tools and which FHIR resources would you use?

To make the DICOM data interoperable, we can utilize FHIR resources and tools.

1. Convert DICOM metadata to FHIR resources:
   * Use a DICOM to FHIR converter tool/library to transform the DICOM metadata into corresponding FHIR resources.
   * For example, convert DICOM PatientID, StudyDate, PatientAge, etc., into FHIR Patient resource attributes like identifier, birthDate, etc.
   * The converted FHIR resources will follow the FHIR data model and structure.
2. Utilize FHIR server:
   * Set up a FHIR server that supports storing and serving FHIR resources.
   * The FHIR server will handle the storage and retrieval of the converted DICOM metadata as FHIR resources.
3. Map DICOM attributes to FHIR profiles:
   * Define mappings between DICOM attributes and FHIR profiles/elements.
   * Ensure that the DICOM attributes are properly mapped to the corresponding FHIR resources and elements for accurate data representation.
4. Use FHIR APIs and libraries:
   * Use FHIR-compliant APIs and libraries to interact with the FHIR server and perform CRUD (Create, Read, Update, Delete) operations on the FHIR resources.
   * These APIs and libraries provide standardized ways to access, query, and manipulate FHIR resources.

c) Create a route ('/api/patient/<patient\_id>') that filters the images based on a patient's id

Une image contenant texte, capture d’écran, logiciel, Page web

Description générée automatiquement

1. Which cues can you find in both image names and metadata to help solve this problem?

Patient ID, Study/Series Description, Study/Series Instance UID, Image Dates

1. Which image names do not match their metadata? Please provide code to avoid this problem in the future.

Une image contenant texte, capture d’écran, logiciel, Page web

Description générée automatiquement

Une image contenant texte, Police, nombre, capture d’écran

Description générée automatiquement

Please provide code to avoid this problem in the future.

Une image contenant texte, capture d’écran, Police, document

Description générée automatiquement

1. Can you fix the image names, which of them were wrong and what needed to be changed?

Une image contenant texte, capture d’écran, Police, nombre

Description générée automatiquement