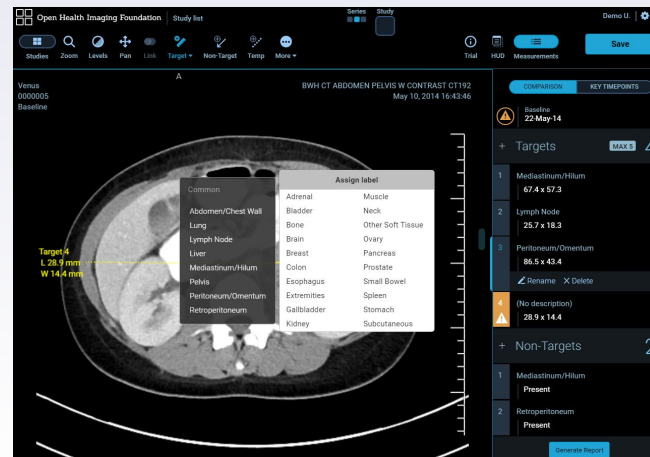


MI4WEB

Elaboration phase

Projeto em Informática - Group 7
LEI / Universidade de Aveiro
2021/2022



Team Roles



Architect

André Freixo
Nº mec 98495



DevOps Master

Daniel Figueiredo
Nº mec 98498



Team Manager

Eva Bartolomeu
Nº mec 98513



Product Owner

Marta Fradique
Nº mec 98469

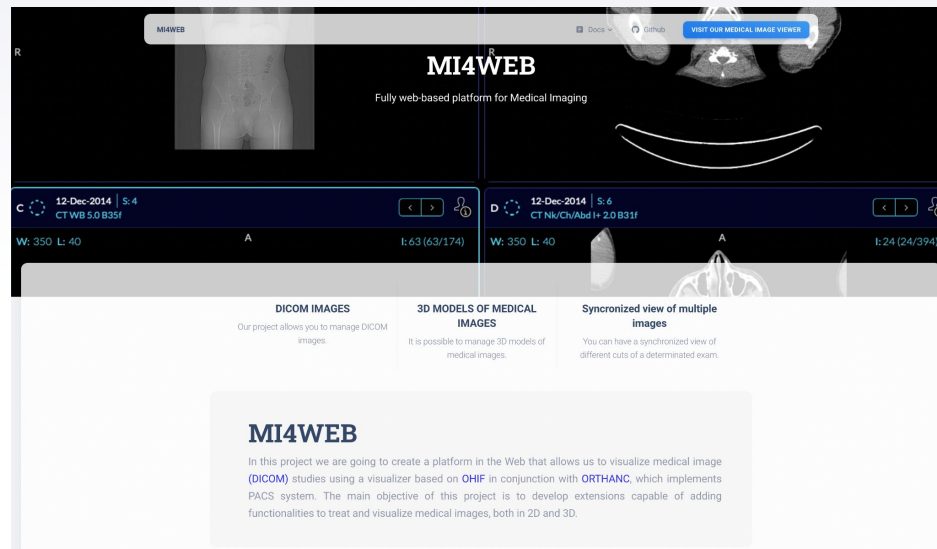


Architect

Pedro Sobral
Nº mec 98491

Website

<https://thescorpai.github.io/>



Requirements gathering

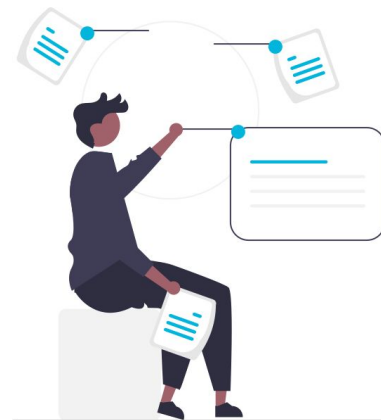
- ▶ Read documentation about medical images.
- ▶ Brainstorming.
- ▶ Research about the state of art in this area.
- ▶ Discussion with coordinators.
- ▶ Decide the system boundaries.
- ▶ OHIF, ORTHANC, DICOM, DICOMWeb.



Context

Technologies are important to govern the heavy dataflows. In this project we are going to:

- ▶ Create a Web platform to visualize medical image studies;
- ▶ Develop extensions to add functionalities to visualize and process medical images.



State-of-Art

- ▶ OHIF
- ▶ DICOOGLE
- ▶ ORTHANC

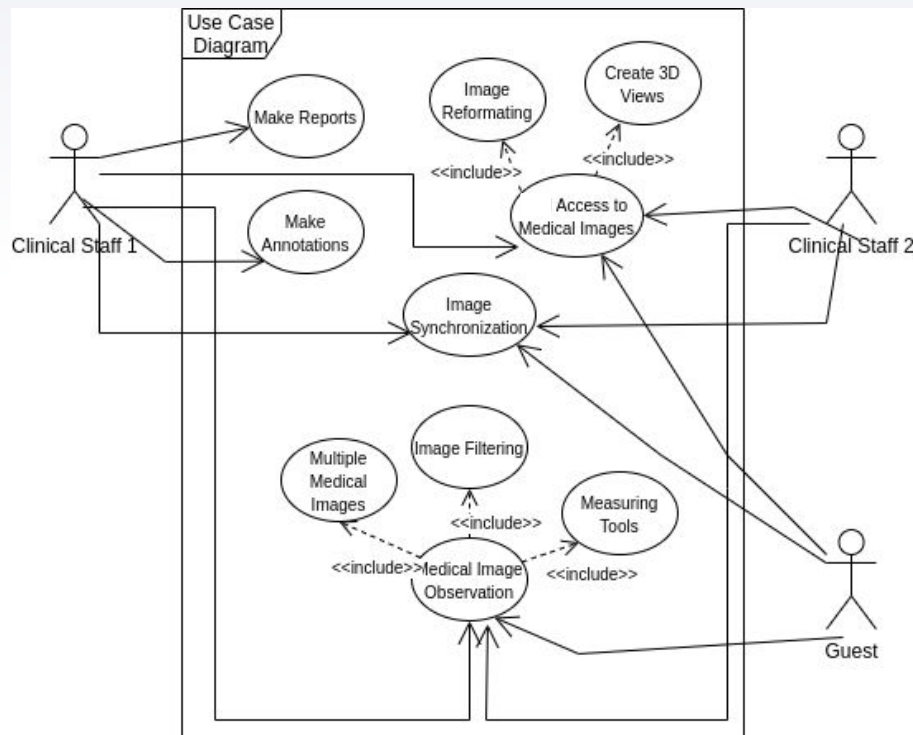
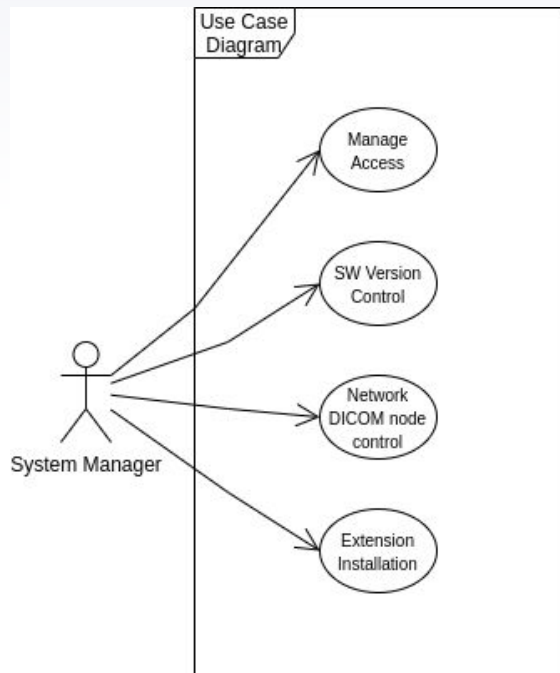


▶ Actors

- ▶ Clinical Imaging Staff 1
- ▶ Clinical Imaging Staff 2
- ▶ Guest
- ▶ System Manager

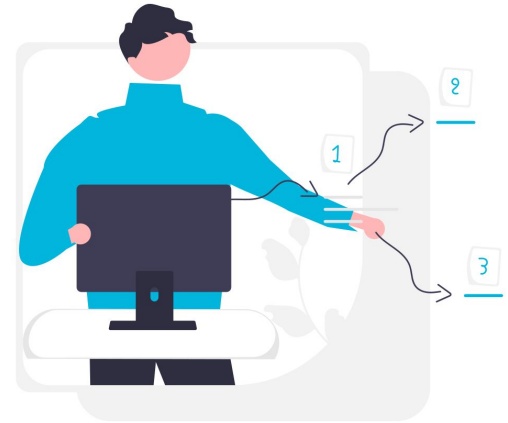


Use Cases



Functional Requirements

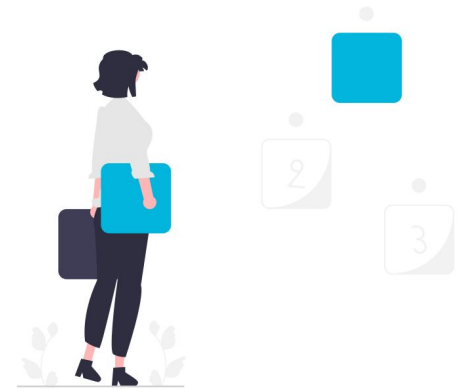
1. Business Rules
2. Administrative functions
3. Authentication



Functional Requirements

6. Regulatory Requirements

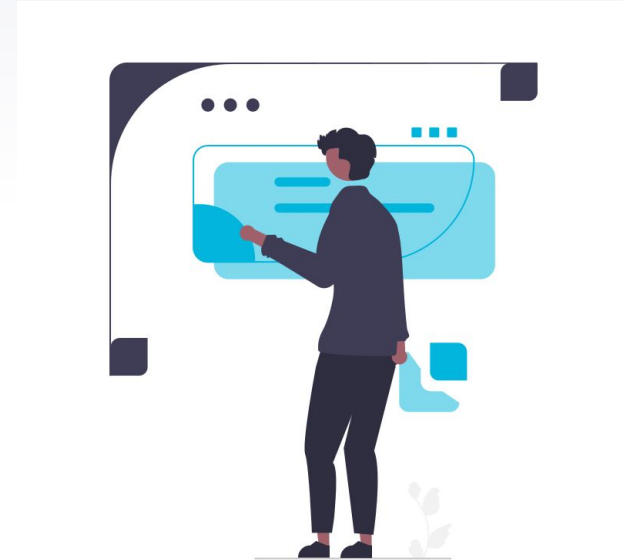
- ▶ Login
- ▶ Requests to the ORTHANC server through the DICOMWeb API.
- ▶ DICOM image import and export.
- ▶ All the images that are retrieved from the server can be accessed through the application.



Functional Requirements

6. Regulatory Requirements

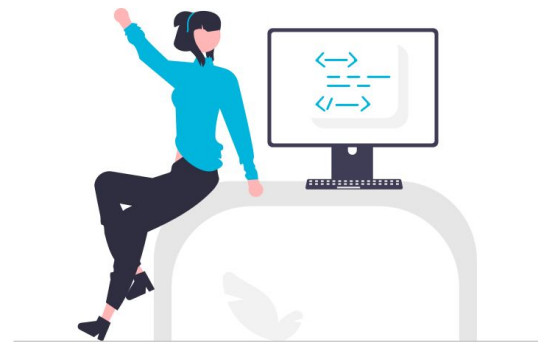
- ▶ Image segmentation tools.
- ▶ Admin interface.
- ▶ CS1 should be able to edit, make annotations and store those images.
- ▶ 3D display tools such as plugins and 2D display functionalities.



► Non-Functional Requirements

High priority requirements:

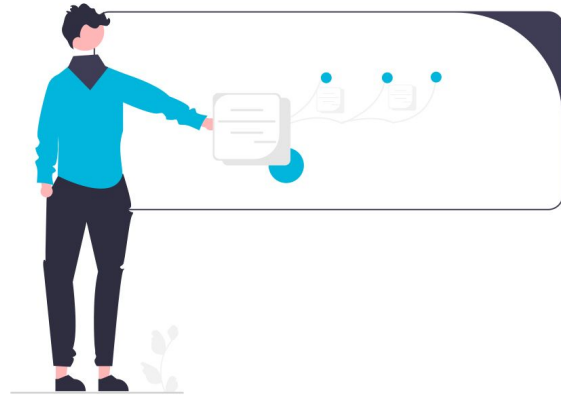
- ▶ Usability
- ▶ Reliability
- ▶ Security
- ▶ Interoperability
- ▶ Availability
- ▶ Performance



► Non-Functional Requirements

Medium priority requirements:

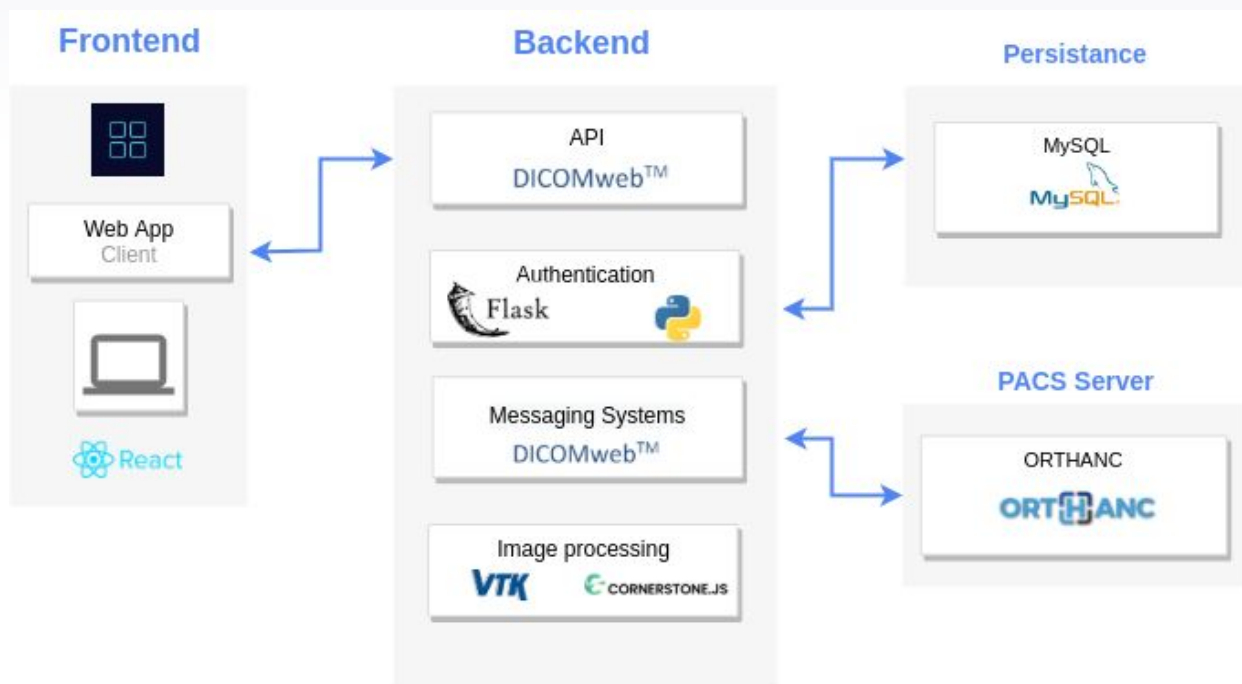
- Scalability
- Portability
- Maintainability



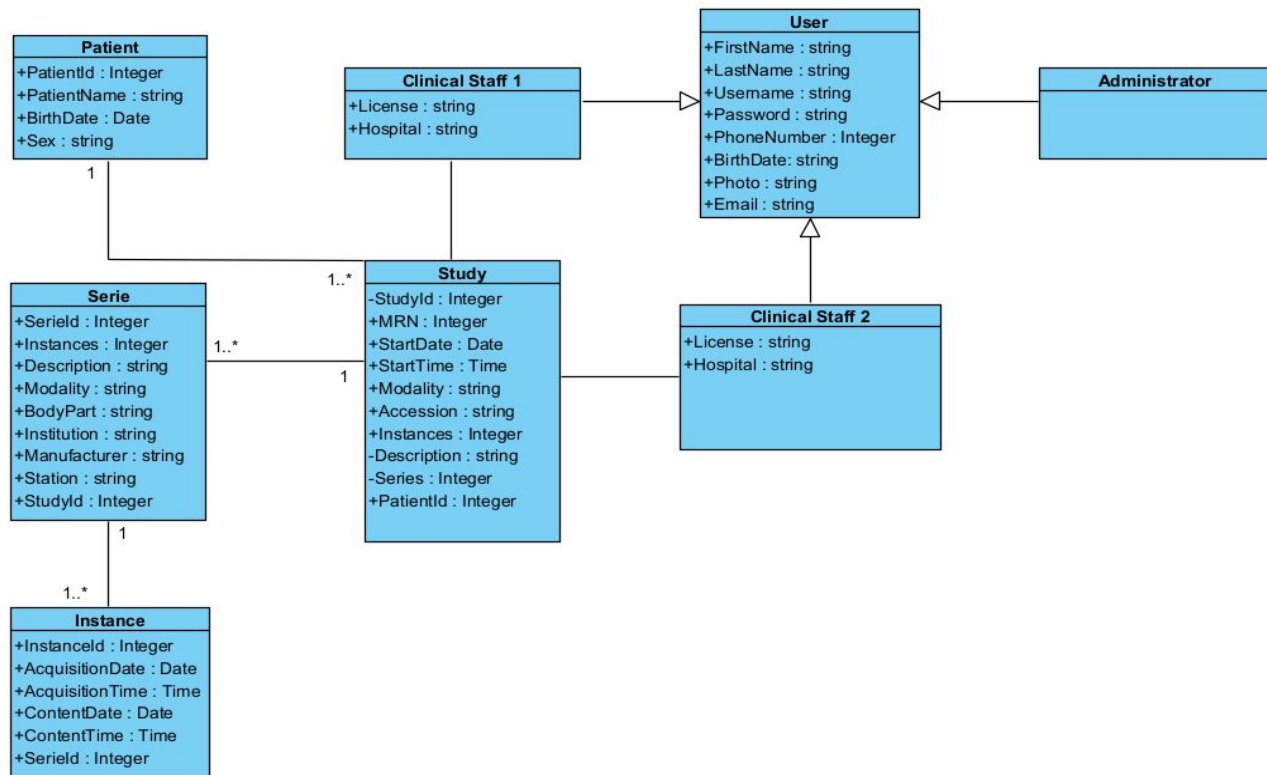
► Assumptions and dependencies

- ▶ Knowledge about the functioning of medical image
- ▶ Internet connection
- ▶ The system must run on any operating system and in any browser

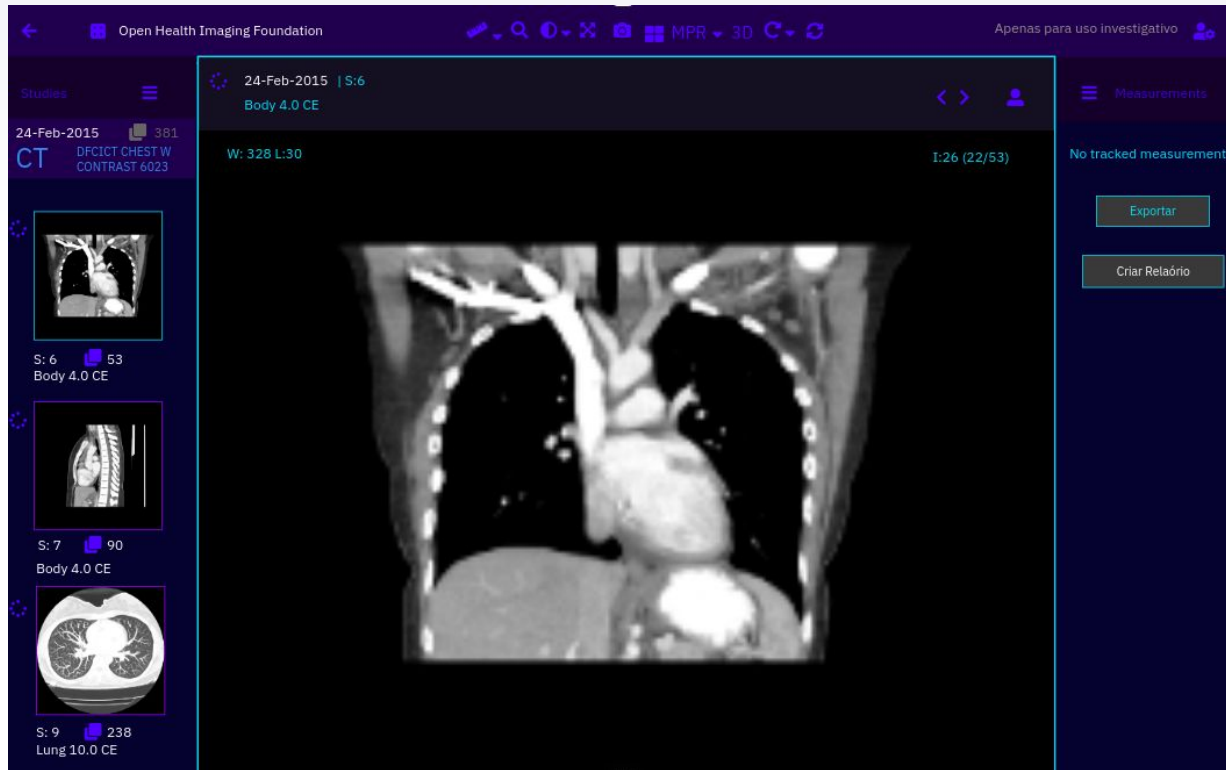
System Architecture



Domain Model



Design mock-ups



Open Health Imaging Foundation

MPR 3D

Apenas para uso investigativo

Studies

24-Feb-2015 381

CT DFCICT CHEST W CONTRAST 6023

S: 6 53
Body 4.0 CE

A

S: 7 90
Body 4.0 CE

B

S: 9 238
Lung 10.0 CE

A 24-Feb-2015 | S:6
Body 4.0 CE

W: 328 L:30 Coronal View I:26 (22/53)

B 24-Feb-2015 | S:7
Body 4.0 CE

W: 328 L:30 Sagittal View I:26 (22/53)

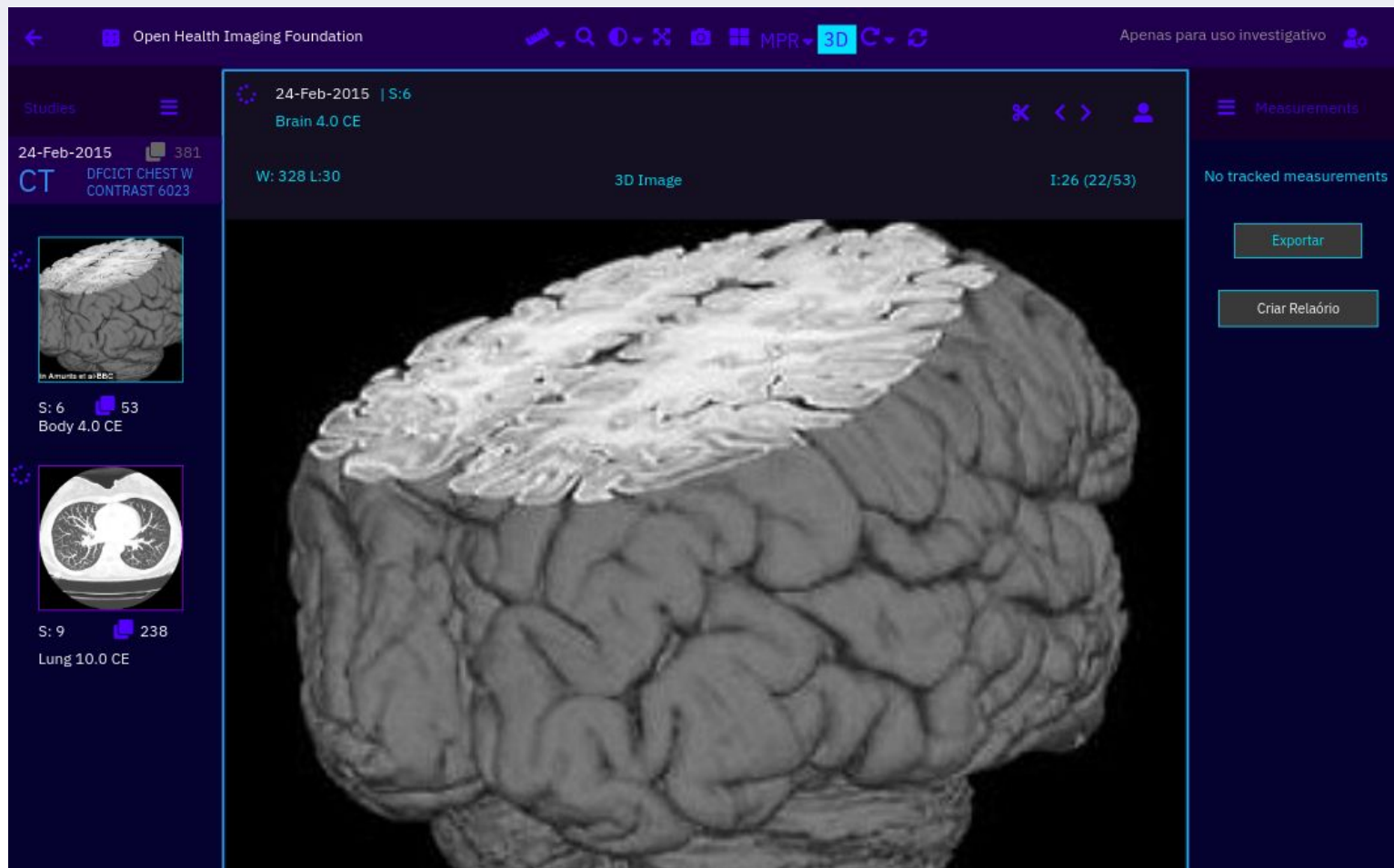
Axial
Coronal
Sagittal

Measurements

No tracked measurements

Exportar

Criar Relatório



System Manager Dashboard

Dashboard

Manage Access

SW Versions

DICOM nodes

Extensions Installation

Manage Access

Request Accounts Current Accounts

Virgílio Mendonça

Hospital: Hospital da Luz

Num Licença: 23546753567

Email: virgilio@io.p

Accept Decline

Pedro Proença

Pedro Silveira

André Luisa

Vera Silva

Ana de CT Sobral

Diana Freixo

Evangelina Rosália

Page 1 Previous Next

System Manager Dashboard

Dashboard

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Request Accounts Current Accounts

Virgílio Mendonça

Hospital: Hospital da Luz

Num Licença: 23546753567

Email: virgilio@io.p

Eliminate

Activate

Deactivate

Pedro Proença

Pedro Silveira

André Luisa

Vera Silva

Ana de CT Sobral

Diana Freixo

Evangelina Rosália

Page 1 Previous Next

Dashboard



Manage Access



SW Versions




DICOM nodes



Extensions
Installation



DICOM nodes

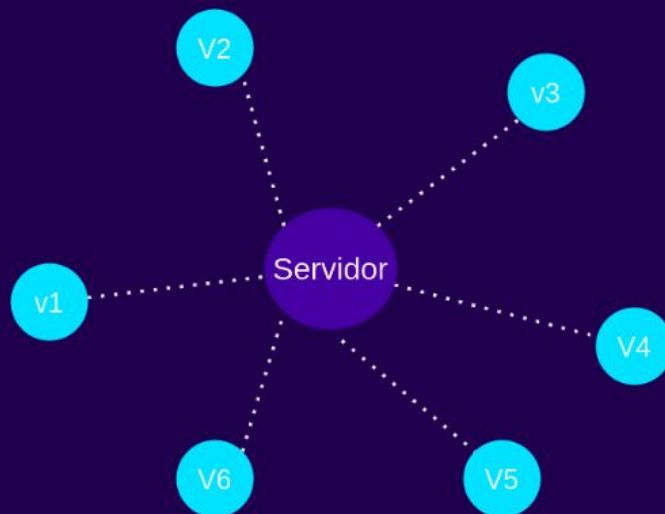
Description: cute node 

AE title: nodezinho

Hostname: hostinho

Port: 11111

Usage type: Storage



THANKS!

Any questions?

