FLEXIGATHER

universidade de aveiro

Event Management System

M3: mid-term presentation; prototype

Roberto Castro - 107133
Rafaela Abrunhosa - 107658
Marta Inácio - 107826
Tiago Gomes - 108307
Sara Almeida - 108796

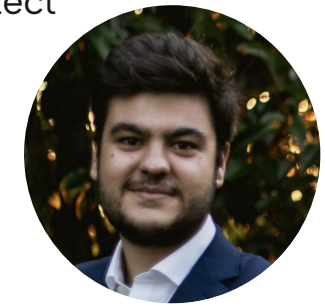
Projeto em Informática 2023/24

Our team

Marta Inácio
Software Architect

Sara Almeida
Team Manager

Rafaela Abrunhosa
DevOps Master



Tiago Gomes
Product Owner

Roberto Castro
DBA / DevOps

Guiding Teacher

Joaquim Sousa Pinto

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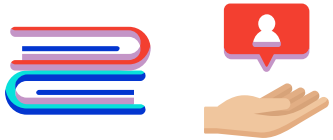
01

Context

The event management industry faces constant challenges.



Develop an integrated management system for the events: Participants info, medical info, entry and exit system, etc ...

Capable of handling large volumes of audiences in an organized way.

01

State of The Art

	360 CITY	eventify	cvent	FLEXIGATHER
Access Management	✓	✓	✓	✓
Balance Management	✓	✗	✗	✓
Payment Methods (QR Code)	✓	✗	✗	✓
Roles Management	✓	✓	✓	✓
Purchase Products via QR Codes	✓	✗	✓	✓
Account Loading for Cashless Transactions	✓	✗	✗	✓
Medical Atention Management	✗	✗	✗	✓

01

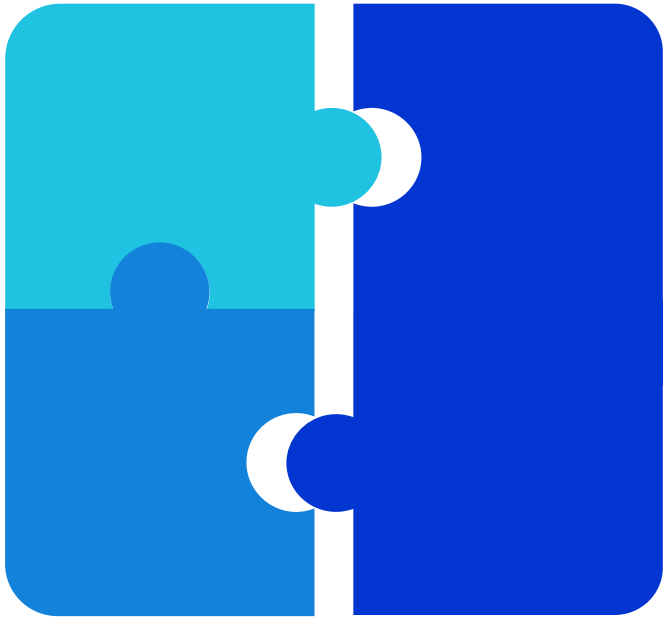
Our modular system

Medical Center

With pre-filled medical files to better attend **emergency** situations.

Events

Access and Kiosks logistics common to all this kind of events.



Theme

The theme of the event can be changed to **meet** the client **expectations** (i.e Scouts Event)

01

Goals

1

Participants Identification

2

Advanced Technology Integration

3

Specialized Access Management

4

Support for Cashless Operations

Goals

5

Improved Participant Experience

6

Strengthening Safety and Health

7

Data Analysis and Reports

01

Actors

Participants

Sales Staff

Medical Staff

Entrance Staff

Administration

01

Functional Requirements

Participants

- Access personal data
- Enter and leave the premises
- Add money to theis accounts

Medical Staff

- Access medical information
- Create treatment files
- Access treatment files history

Administration

- Allow registration of participants
- Update product stock
- See the event participants flow

- Registration of sales
- Allow money to be load into participants accounts

Sales Staff

- Record entries of the participants
- Record exits of the participants

Entrance Staff

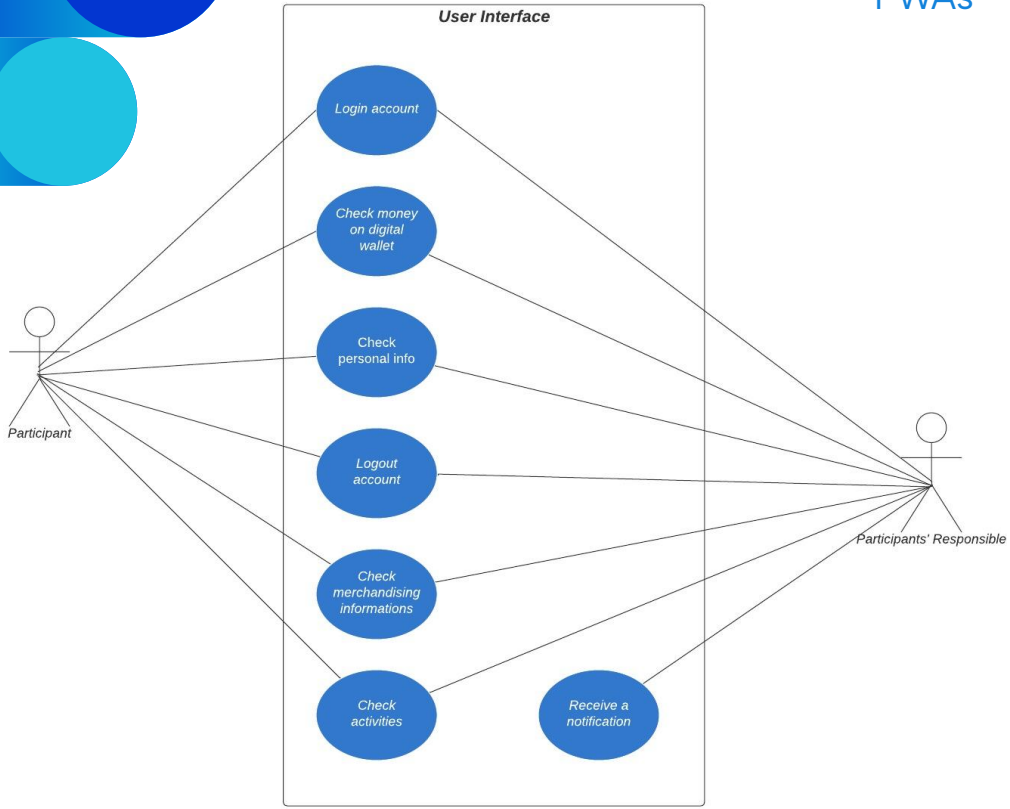
01 Non-functional Requirements

Functionality	Performance	Security	Availability
The system should be able to read QRCodes/NFCCodes.	The system should handle large volumes of audiences (data capacity).	Only medical and administration staff can have access to the medical center area.	All the interfaces (except the kiosk) should be available 24/7, this including during the night.
The system should allow the use of more than one browser.	After a money top-up/load, the money must be available in the participants' account in less than 5 seconds (throughput).	Only medical and administration staff can have access to the participants health information.	If the system crashes, the data should not be lost.
	The system should warn the responsibles chiefs in less than 3 seconds whenever a child on their charge entries in the medical center (response time).	Only sales staff can make a sale or exchange.	

01

Use Cases

PWAs



01

Use Cases

PWAs

01

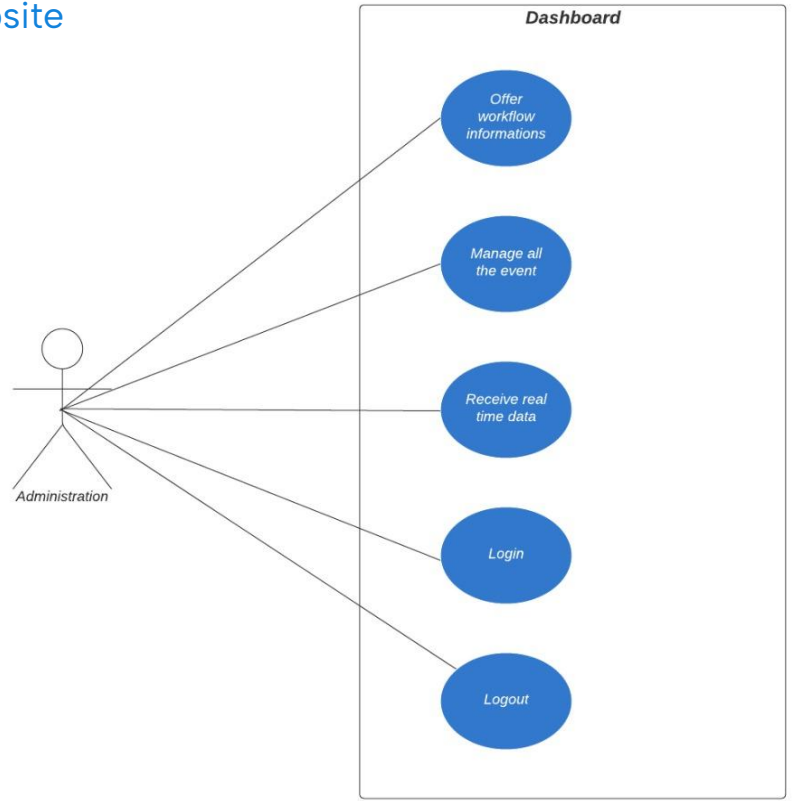
Use Cases

Website

01

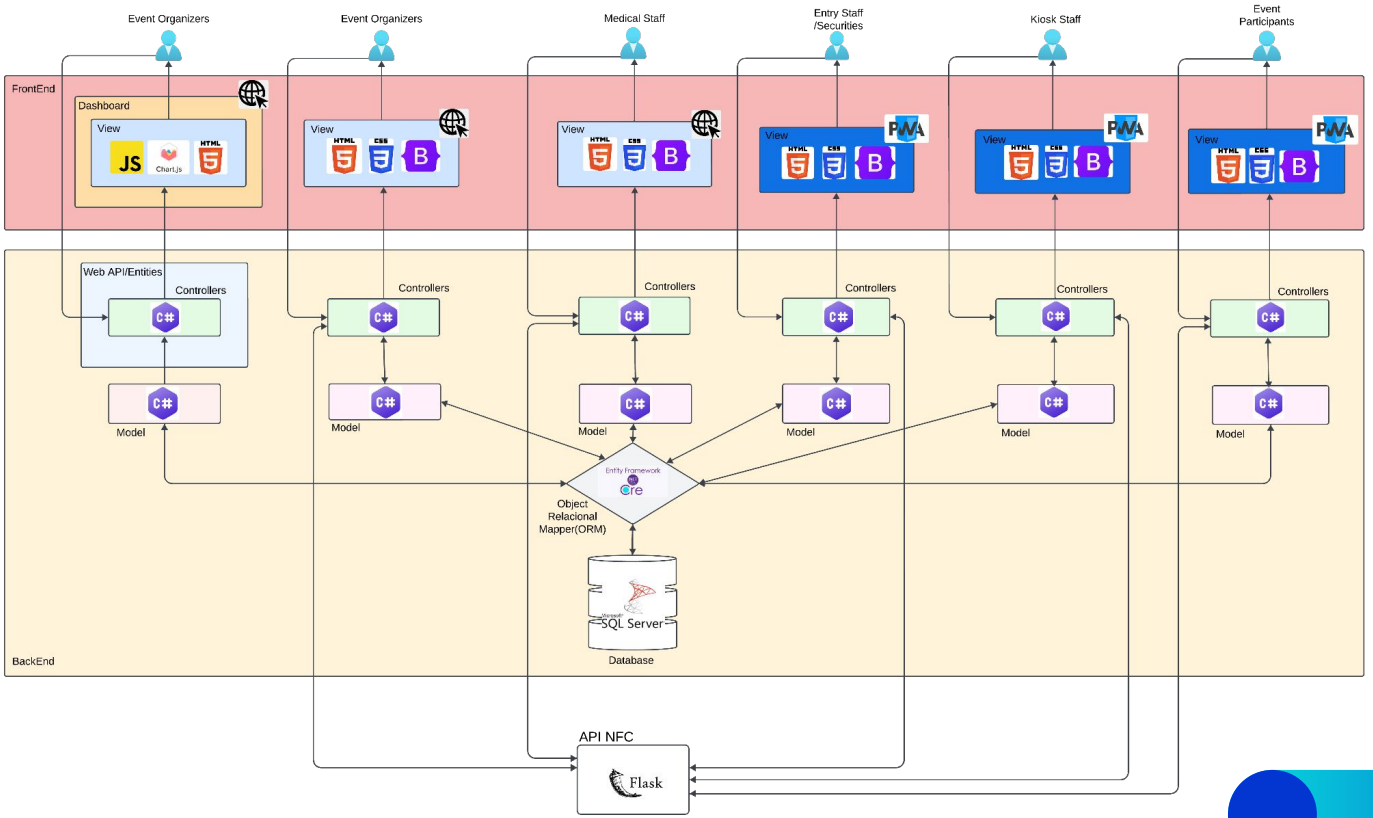
Use Cases

Website



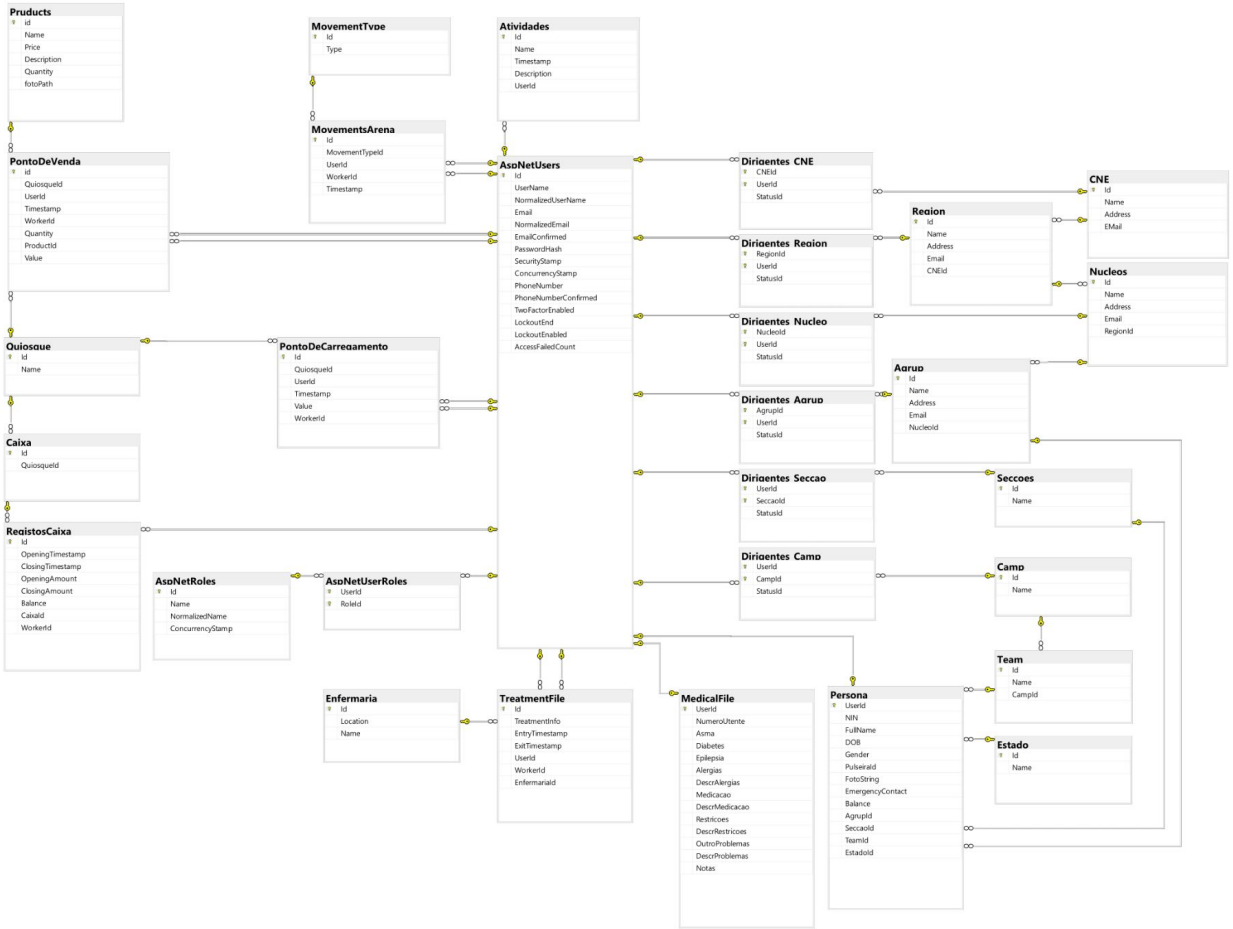
01

System Architecture



01

Data Model



Calendar Changes

02

Frontend	Interface Development		Rafaela Abrunhosa Sara Almeida Tiago Gomes Marta Inácio	March 19, 2024	April 15, 2024	To-do

Backend Frontend	Kiosk Interface Development (PWA)		Rafaela Abrunhosa	19 de março de 2024	15 de abril de 2024	In progress
Backend Frontend	Access Interface Development (PWA)		Marta Inácio	19 de março de 2024	15 de abril de 2024	In progress
Backend Frontend	User Interface Development (PWA)		Roberto Castro	19 de março de 2024	15 de abril de 2024	In progress
Backend Frontend	Dashboard Development (Website)		Sara Almeida	19 de março de 2024	15 de abril de 2024	In progress
Backend Frontend	Medical Center Interface Development (Website)		Tiago Gomes	19 de março de 2024	15 de abril de 2024	In progress
Backend Frontend	Management Interface Development (Website)		Tiago Gomes Roberto Castro Sara Almeida	19 de março de 2024	15 de abril de 2024	In progress

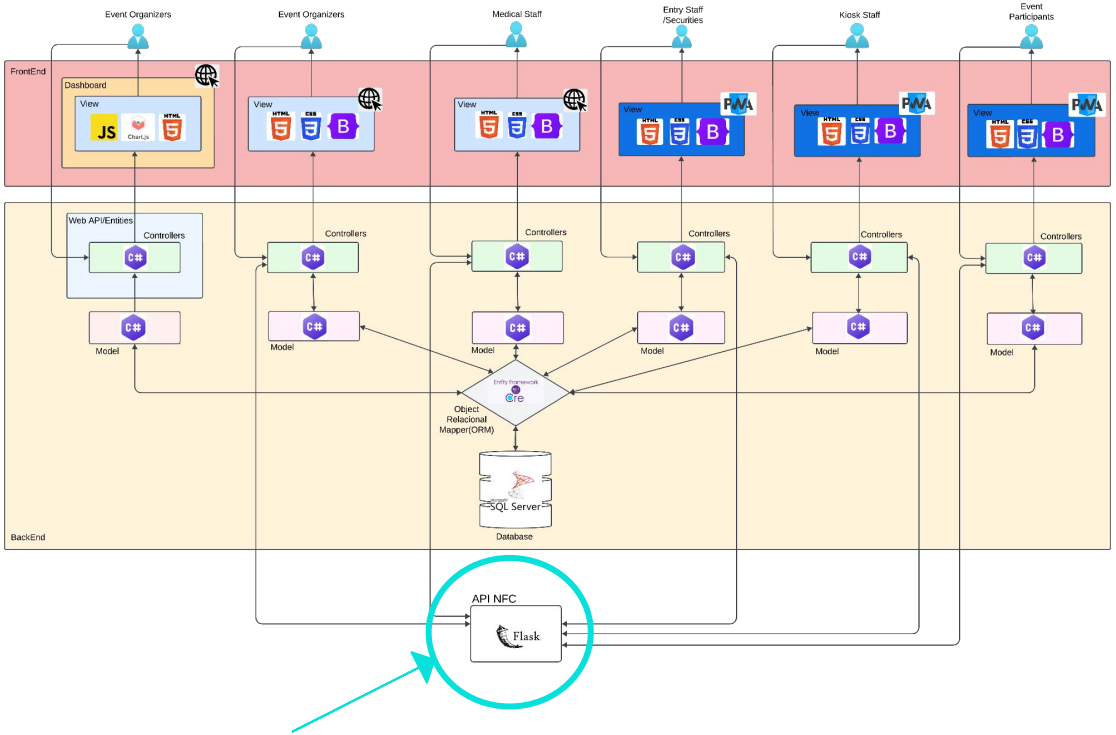
Challenges

03

NFC Integration

New API development

GET: /api/nfc/read



Challenges

03

PDF Generation

For treatment files download, in case a participant needs to head to the hospital

DB Changes

Throughout the development process we improved our DB

Space for images

The images identifying the participants need space to be stored.

A big number of participants is expected.

04

Future Work

Frontend

Improve the frontend according to usability tests

Usability Tests

Scouts will test our system so we can improve some frontend features

Integration and Unit Testing

Tests to the functioning of our project

Dashboard Graphs

Graphs with information about the kiosks status, for example

04

Future Work

QR Codes Reading

Reading of the QR Codes, as an alternative to the NFC bracelets

Notifications

Notifications for those **Responsible** for the participants

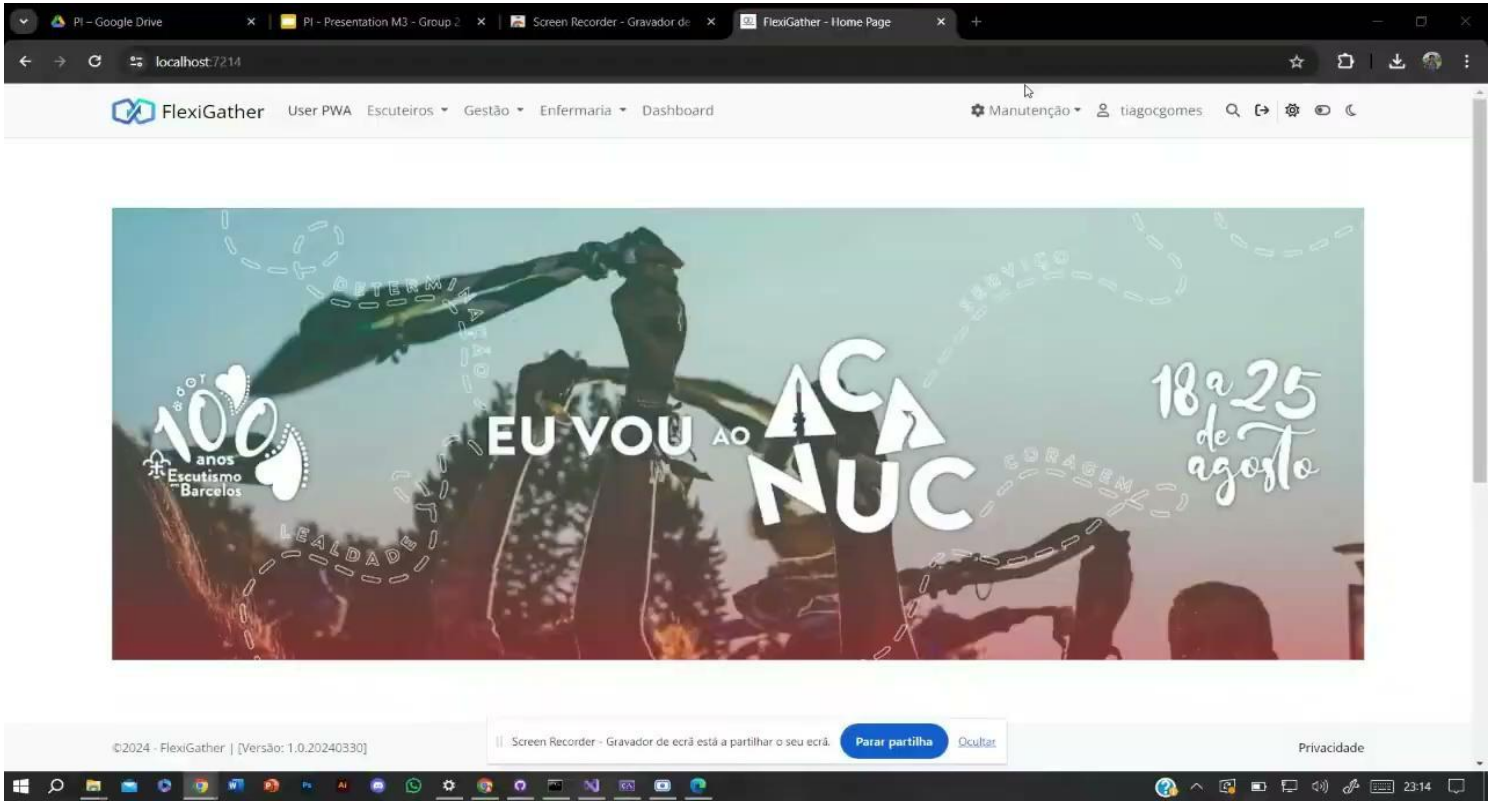
Images outside DB

The images should not be kept directly in the DB

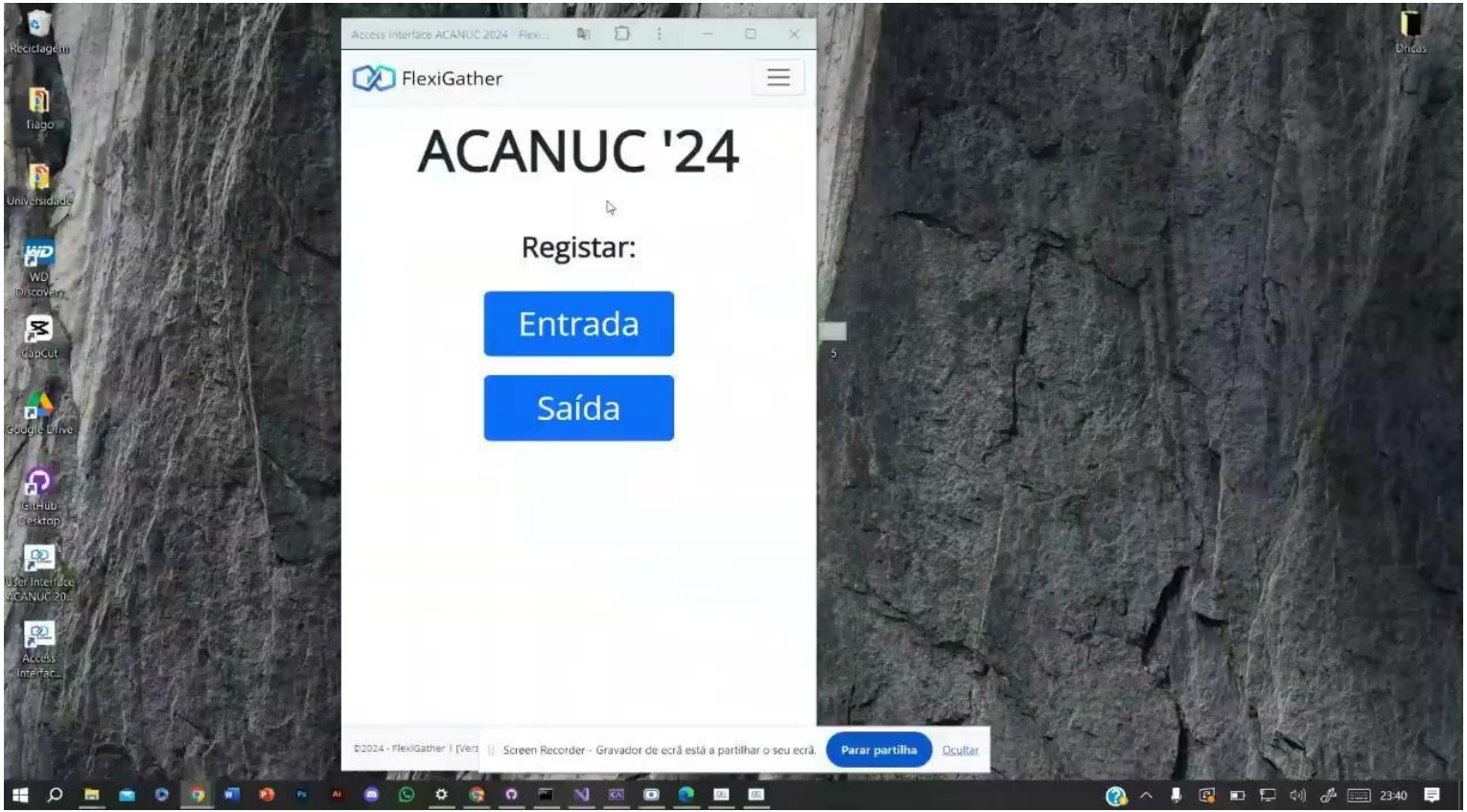
DEMO

DETERMINAÇÃO
SERVIÇO
CORAGEM
LEALDADE
100 anos Escutismo em Barcelos
EU VOU AO ACNUC
18 a 25 de agosto

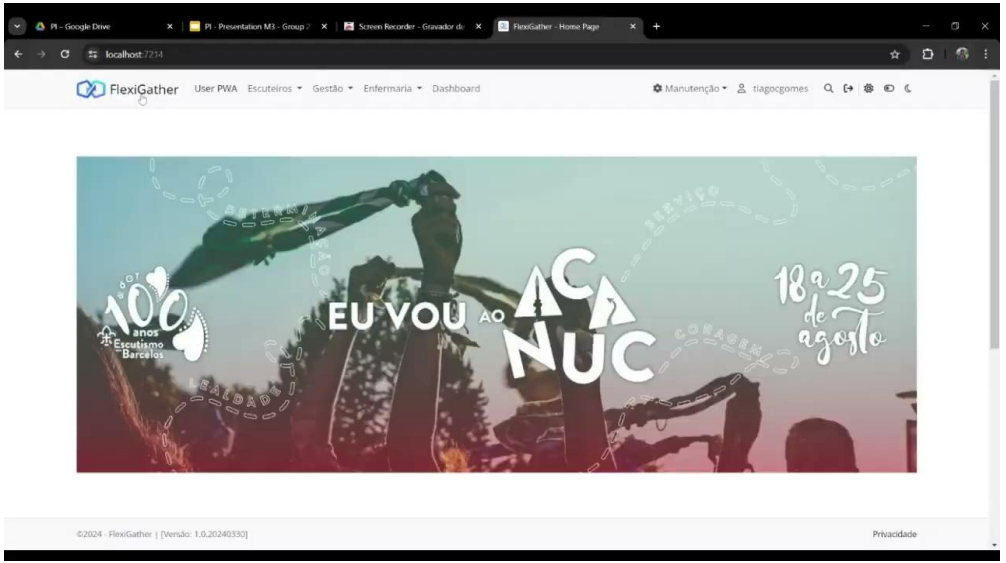
User Interface



Access Interface



Medical Interface and Dashboard



Thanks!

https://flexigather.github.io/comunication_website/