

# FlexiGather: Event Management System

Maria Abrunhosa, Marta Inácio, Roberto Castro, Sara Almeida, Tiago Gomes

Orientador: Prof. Joaquim Sousa Pinto

Projeto em Engenharia Informática, 3º ano, LEI.

2024

## Abstract

FlexiGather is an integrated event management system. It is characterized for being a domain based system that includes an **event** domain - management of activities and sales, a **medical** domain - management of medical emergencies within the event - and a **theme** domain. The **theme** domain is where we **meet** the **client's expectations** by adapting our system to the event they are looking for. Our main obstacle was to handle large audience streams, in an organized and efficient way.

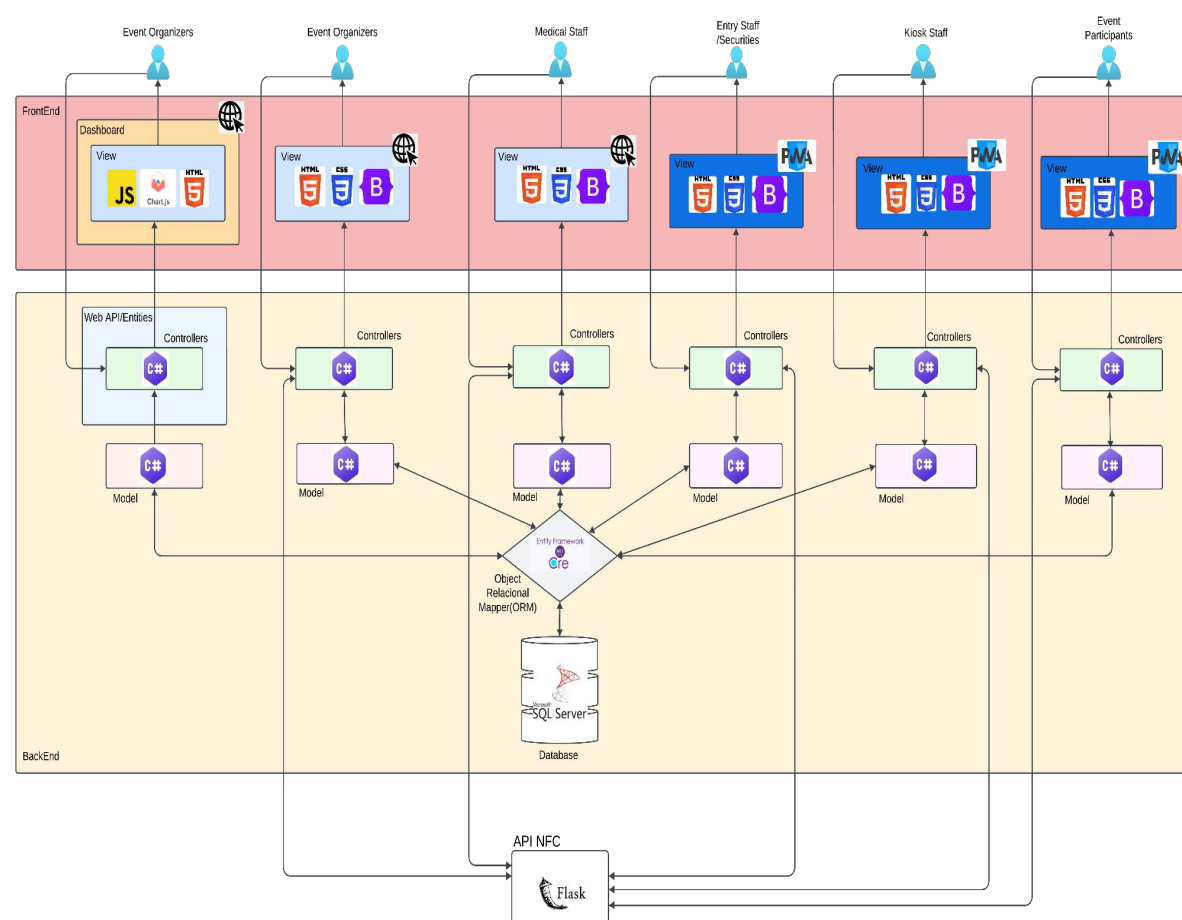


Fig 1 - System Architecture

## Platforms and Functionalities

We have developed six interfaces. The website platforms are the medical and management interface and the dashboard and the PWA's platforms are the kiosk, the access and the user interfaces.

- **Medical interface:** create file treatments and report medical emergencies.
- **Management interface:** check-in the participants and other staff and update stock.
- **Dashboard:** receive real-time information.
- **Kiosk interface:** sell products and load participant's accounts.
- **Access Interface:** registry entries and exits.
- **User interface:** access personal data, account's balance and movements.

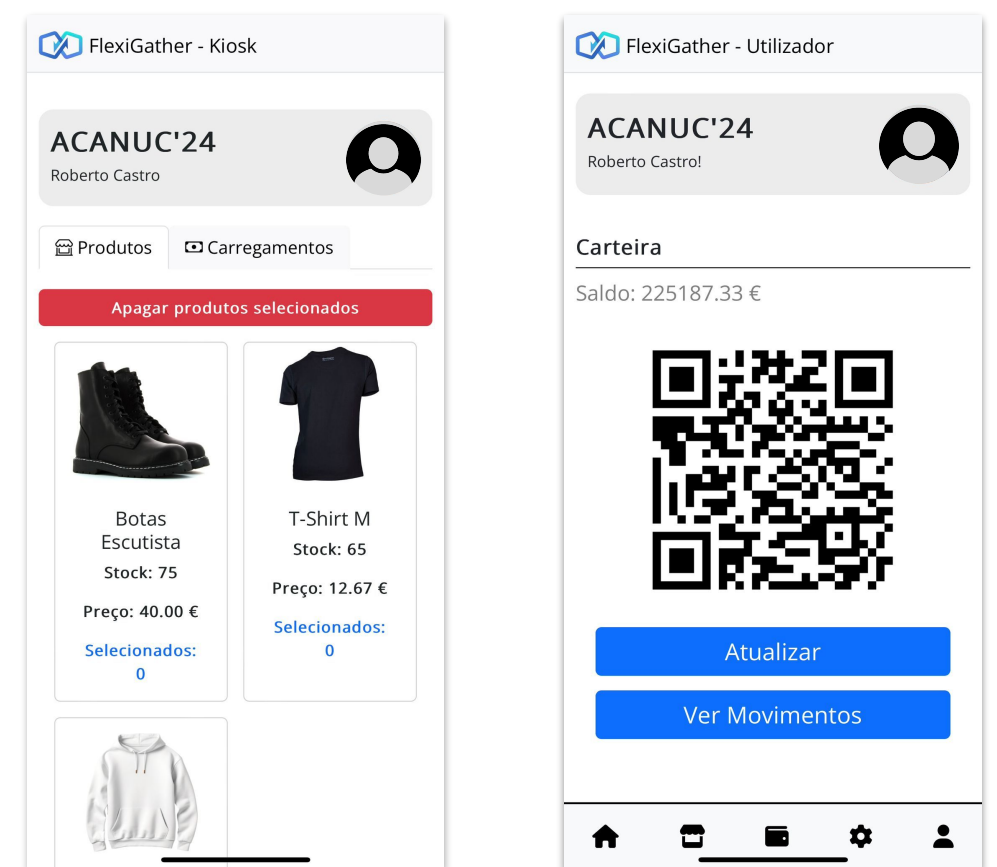


Fig 2 - Kiosk Interface and User Interface

All participants have their **identification** that can be by:

- NFC bracelets
- QR Codes



Fig 3 - NFC Bracelets for user identification

## Results

We developed a centralized database and six functional platforms to support our Scouts Event, which will host **1500 to 2000 participants**. To ensure the system's reliability and availability, we decide to conduct load test to verify that the system can handle large audiences across all interfaces.

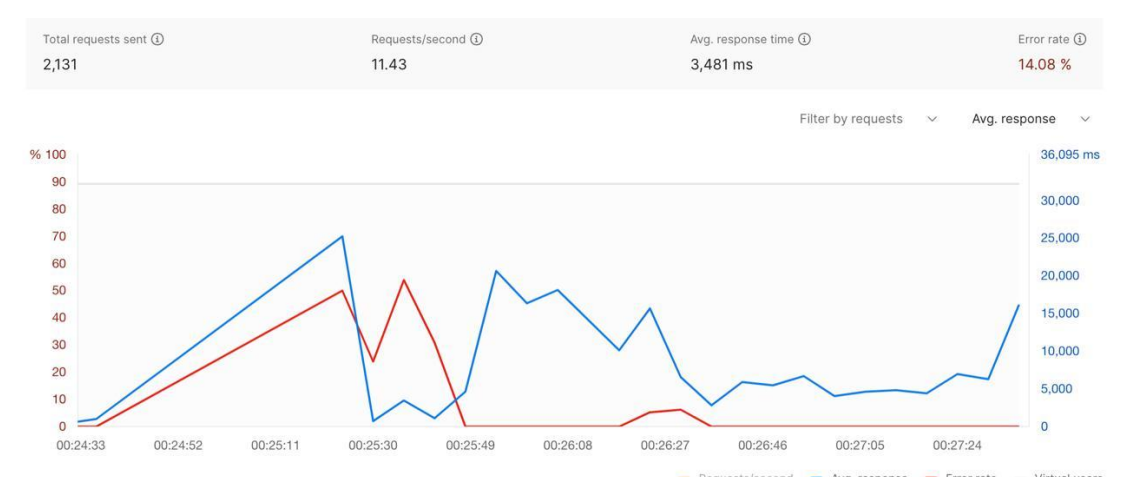


Fig 4 - Loading test stats: **100** users simultaneously requesting the system