



# UA Smart Signage

Diogo Silva, João Andrade, Miguel Cruzeiro, Pedro Pinho, Rafael Vilaça, Tomás Victal

Orientador: Prof. Nuno Borges, Gonçalo Leal, António Alves

Projeto em Engenharia Informática, 3º ano, LEI.

2024



## Resume

Digital signage provides a contemporary, efficient and engaging alternative to conventional methods of communication and information display.

UA Smart Signage is a sophisticated **open-source** digital signage system specifically designed for DETI, centralizing content management across multiple screens.

It boasts an **intuitive interface** that facilitates **effortless content updates**, scheduling and the ability to designate which group of monitors will display the content.

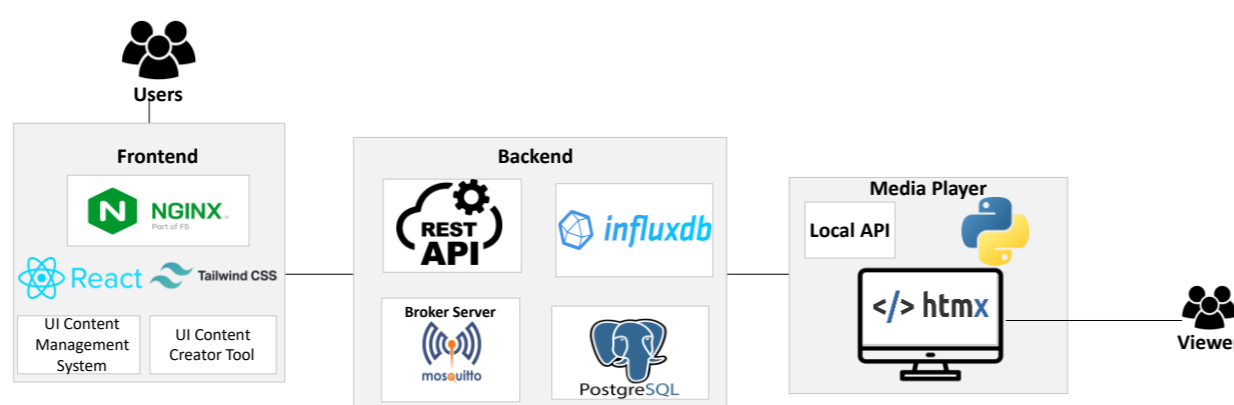


Fig 1- UA Smart Signage's architecture

## Functionalities

UA Smart Signage offers a comprehensive set of tools to streamline the management and display of digital content:

- **Content Creation Tool:** This tool allows users to create and edit templates by choosing widgets and determining their placement, facilitating a customized and engaging display setup.
- **Content Management System:** Users can upload files, add screens to specific groups, edit and schedule the content for each group, ensuring organized and timely content delivery.
- **Media Player:** This component displays the templates sent by the server on any screen connected to a Raspberry Pi, ensuring content presentation across all screens.

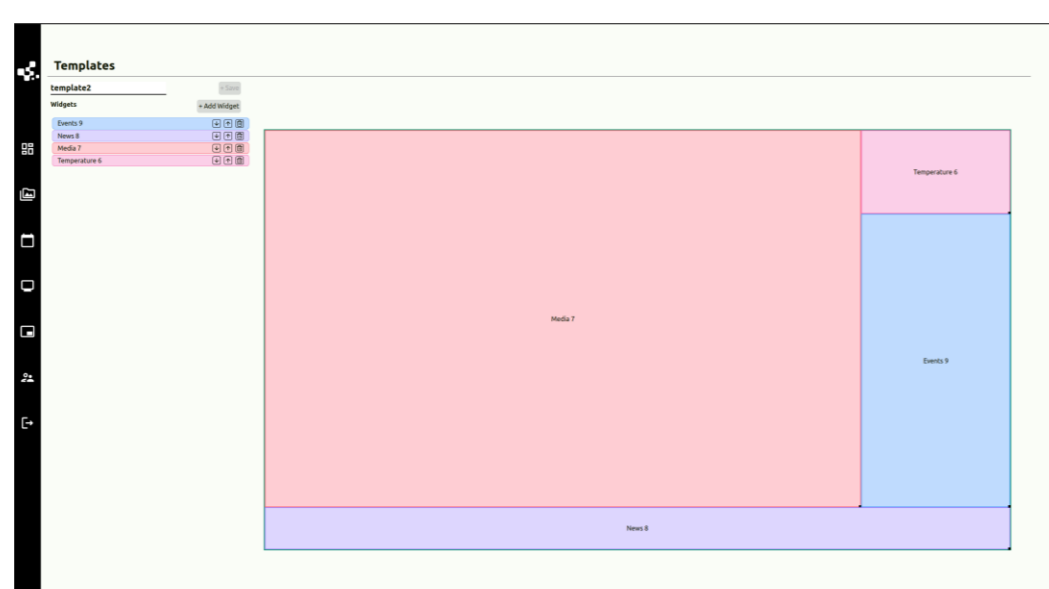


Fig 2- UA Smart Signage's Creator Tool



Fig 3 UA Smart Signage's Schedule

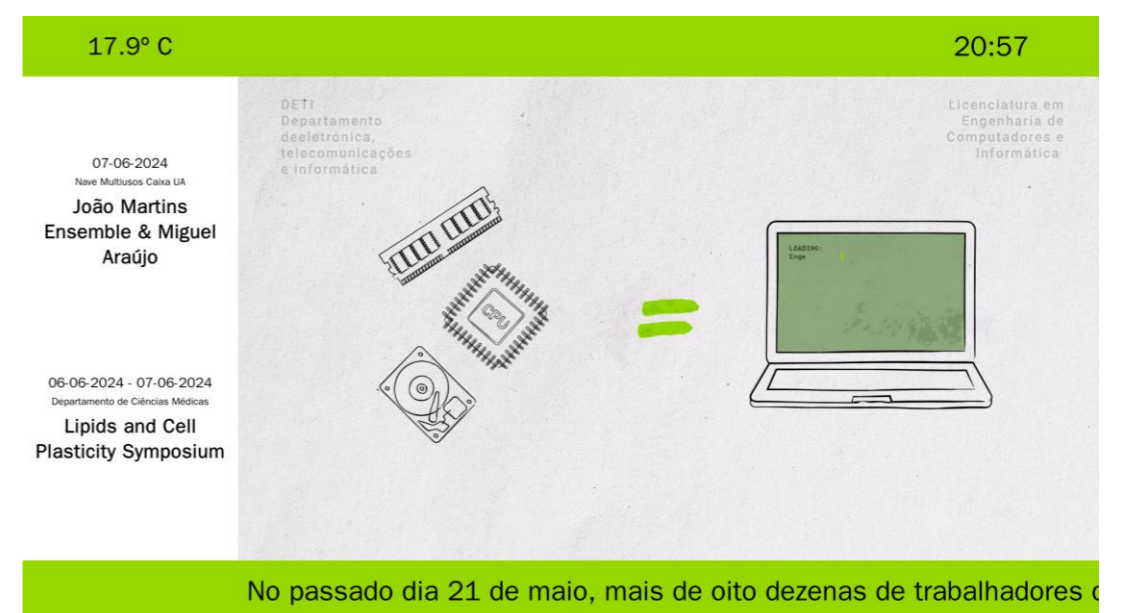


Fig 4- UA Smart Signage's Template.

## Setup

Setting up UA Smart Signage requires:

- **Single-board computer:** A low-power computing device like a Raspberry Pi serves as the processing unit for the signage system.
- **Display:** A visual output device (monitor, TV, etc.) to present the signage content.
- **Server:** A centralized server provides data and management functionalities for the signage network.
- **Mobile device:** A smartphone or tablet facilitates initial configuration of the signage system.

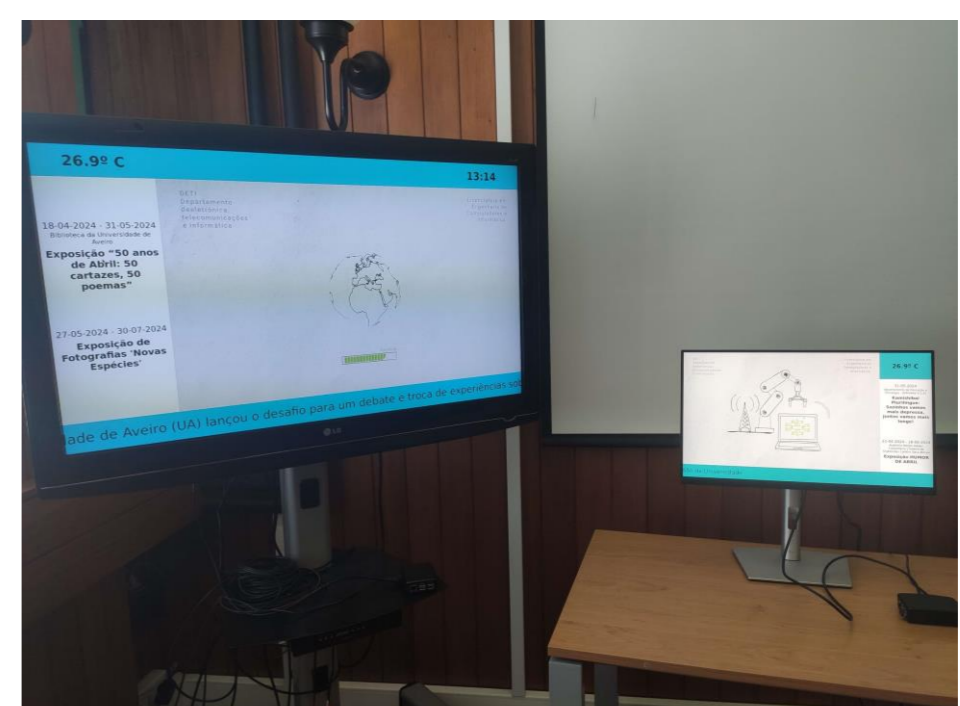


Fig 5- UA Smart Signage's Setup