



Milestone 4 Project Presentation

Diogo Silva 107647 João Andrade 107969 Miguel Cruzeiro 107660 Pedro Pinho 109986 Tomás Victal 109018 Rafael Vilaça 107476

Advisors: Gonçalo Leal

António Alves Nuno Carvalho

Licenciatura em Engenharia Informática Projeto em Informática 2023-2024



- Dynamic information.
- Improves information accessibility.
- Easy management & maintenance.













- Videos iterated statically
- Limited capability
- Client's request: Overhaul entire system.











Events

15/12/2023 - 15/11/2024

Catacumbas

Exposição: 50 objetos de conhecimento 1973-2023

15/12/2023 - 15/11/2024

DETI - Anfiteatro IV
Elon Musk no porquê
de utilizarmos carros
elêtricos



News

Borges, do CICECO, membro da Global Young Academy e do Seminário de Jo





Events

15/12/2023 - 15/11/2024

Catacumbas Exposição: 50 objetos de conhecimento 1973-2023

15/12/2023 - 15/11/2024

DETI - Anfiteatro IV Elon Musk no porquê de utilizarmos carros elêtricos

News

Borges, do CICECO, membro da Global Young Academy e do Seminário de Jo



- Content Management System
- Content Creator Tool (CCT)
- Media Player

Problem





\$11 screen/month



\$12.50 screen/month



16 € screen/month

Personas





Technician in DETI

Name: Rui Age: 37

Occupation: Technician

Nuno aims to **effortlessly share news** and other resources on screens he can add.



Employee

Name: Sara

Age: 30

Occupation: Designer

Sara seeks customizable software that allows her to unleash her creativity and design her own templates.



Student at DETI

Name: Rodrigo

Age: 19

Occupation: Student

Rodrigo anticipates clear and accessible information to remain updated while navigating the campus.

Management



Conditions

Your new code will be clean if: ?

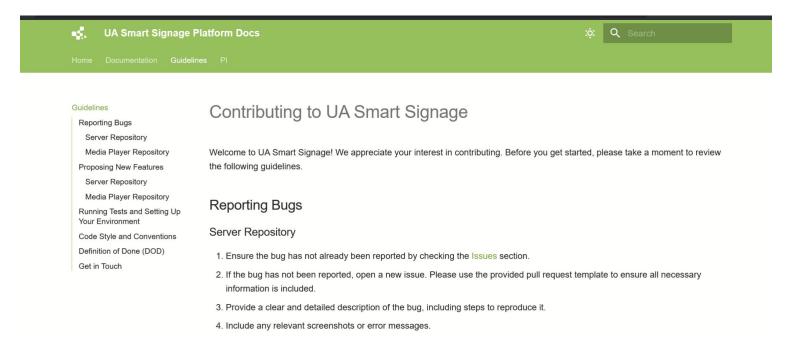
No new bugs are introduced	Reliability rating is A						
No new vulnerabilities are introduced	Security rating is A						
New code has limited technical debt	Maintainability rating is A						
All new security hotspots are reviewed							
New code is sufficiently covered by test	Coverage is greater than or equal to 80.0% ?						
New code has limited duplication	Duplicated Lines (%) is less than or equal to 3.0% ?						

SonarCloud Quality Gate

Management 10

Management



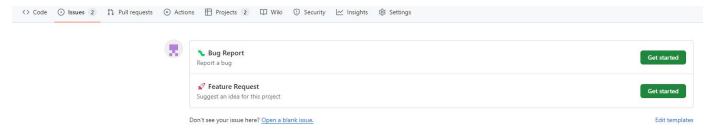


Project Guidelines

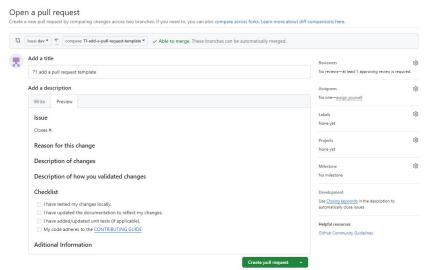
Management



Issues Page



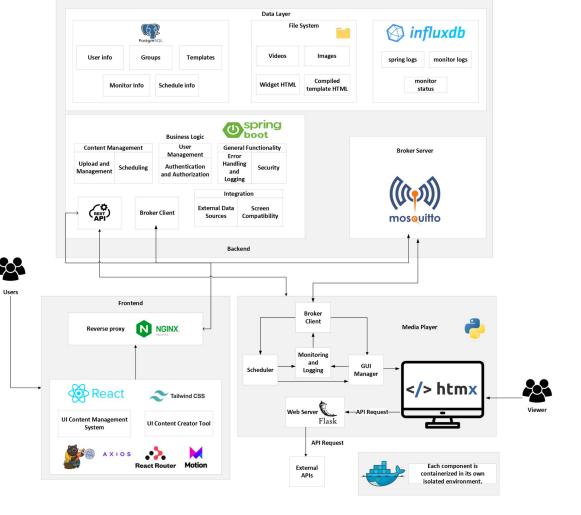
Pull Request Template



Management 12

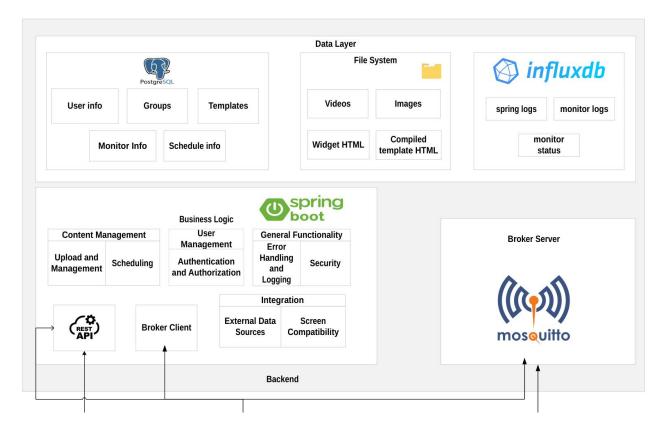
Architecture

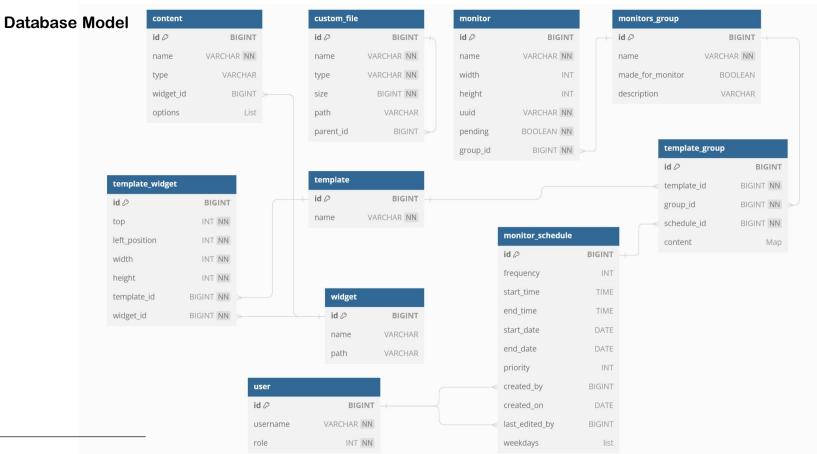




Backend Architecture









Backend Development





Endpoints



Documentation



Integration

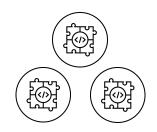


User Authentication

Backend Development







Unitary Tests

Integration Tests

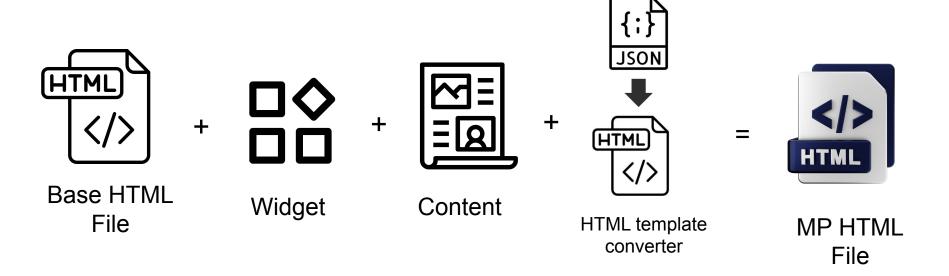
uasmartsignage

Element	Missed Instructions	Cov.	Missed Branches	· Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
# deti.uas.uasmartsignage.Services		80%		52%	89	177	141	708	4	76	0	9
# deti.uas.uasmartsignage.Controllers		84%		68%	22	103	30	202	5	71	0	10
# deti.uas.uasmartsignage.Models		79%	1	0%	17	168	27	81	13	164	1	13
Total	902 of 4 774	81%	123 of 274	55%	128	448	198	991	22	311	1	32

Tests Coverage

Backend Development





Media Player Architecture Broker Client Media Player Monitoring and Logging Scheduler **GUI** Manager Viewer **Web Server** API Request-Flask **API Request** The MediaPlayer is hosted inside a RaspberryPi **External APIs** Media Player 19

Media Player Structure









MQTT Client



Scheduler

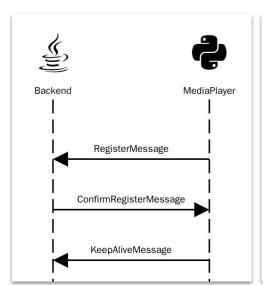


Web Server

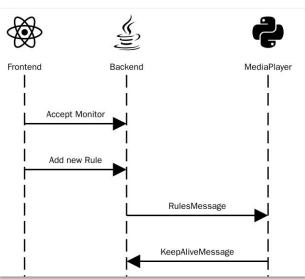
Message Protocol



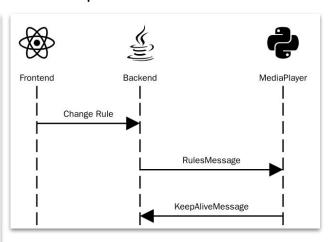
Registration



Accept Monitor and Create Rule



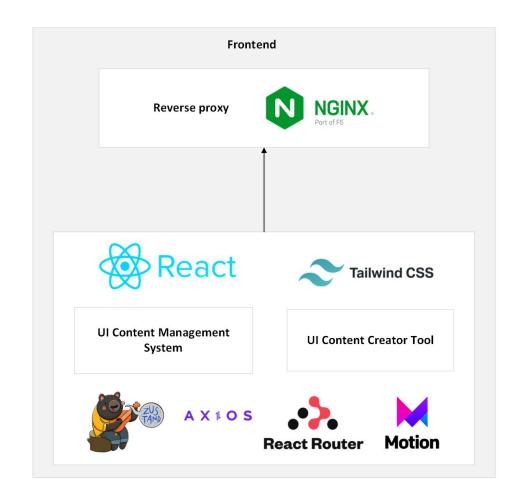
Update or Delete Rule



Normal Order

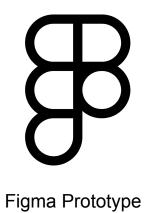
Frontend Architecture





Frontend Development CMS











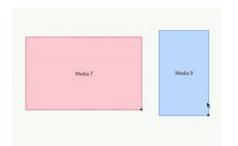
Api Integration

Frontend Development CCT





Testing Framer motion



Making Divs Interactive





Prototype and Api Integration

Frontend Nginx





- MQTT websockets
- API and Frontend same port

Work Results



initially designed pages:

- Dasboard
- Media
- Schedule
- Monitors
- Monitor
- Content Creature tool

Implemented pages:

- Media
- Schedule
- Monitors
- Monitor(less features)
- Templates
- Template editor
- Login
- Users







Modular



Desktop only



ua-smart-signage-platform.github.io/Documentation-Website/

