Parents Association Management

Project in Informatics | February 2020

Context

The domain of the problem.

Context

- Parents in a school can work together to improve their children's education.
- Parents associations defend and promote the interests of their members regarding the education and environment of their children.

2. Problem

What are we trying to solve

Problem

- Everything stored on paper
- Inefficient ways to communicate between members
- Lack of platforms for managing payments / storing and tracking associations' data



3. Goals

Critical requirements

Goals



Open-source

Free and open-source to allow its easy adoption by parents associations, that operate in low budgets.



Instruction manual

For the end-user to know how to install and setup the system. This also allows us to decide how the configuration files work.



Script configurable solution

To allow a quick installation of the software with the needs of each kind of association.



Easy quota payments

Allow the payment of quotas through MB Way.



Export data

In some cases, it may be necessary to share or clear some online data, so users can keep it externally if needed.



Management of children's issues

To association's members get to know issues happening with children and communicate those issues to the school board.



Modules and members assignment

Tasks

Database (Edgar and André)

- 1. Conception of database model
- 2. Design database model (entities, relations, ...)
- Database configuration scripts
- 4. Assess free hosting solutions

Front-end (Alexandre and André)

- 1. Assess UI sections needed, the flow between them, and their information
- 2. Create first UI prototype
- 3. Build the final prototype
- 4. Assess app development solutions

Tasks

Back-end (Edgar and Francisco)

- Edgar: Assess and implement operations for communication between front-end and back-end
- 2. Francisco: Research FaaS solutions
- 3. Edgar: Token login mechanism.

MB Way payments (Francisco)

- 1. Investigate MB Way integration;
- Implement the payment of quotas via MB Way.

Expected Results

State of the final product

Expected Results

- A free web application that meets the requirements
- Implementation of every major functionality proposed
- Deployment of an open-source platform with functionalities suited to Parents Associations.



Related Work

Some bases for our work

Related Work

Our work will be based on:

- Some aspects of CRM systems
- How other systems integrate MB Way payments

However:

 No free focused and configurable solution in the market

Project Calendar

Tasks and workflow planned

Épico	FEV	MAR	ABR	MAIO	
✓ Calendarização					
Definição de objetivos					
Analisar soluções semelhantes					
Levantamento de atores e CaU					
Arquitetura					
Decidir o modelo da BD (relacional, documentos,)		@			
Avaliar as interfaces necessárias, a sua informação e fluxo entre elas					
Primeiros protótipos/mockups da UI		8			
■ Investigar integração com MB Way		1	0		
Desenho da BD		4	@)		
■ Investigar funcionamento da BD no Firebase					
Scripts de estruturação da BD			8		
Scripts de população da BD			P		
Averiguar operações necessárias		€ }			
Investigar Google Cloud Functions					
■ Implementar operações (functions)				8	
Investigar mecanismo de autenticação (com tokens)					
▼ Implementar autenticação com Firebase					

Épico	FEV	MAR	ABR	MAIO
Protótipo funcional				0
Investigar funcionamento do Flutter			0	
Implementar e testar integração MB Way				0
Primeiro protótipo da app				8
Deploy do protótipo no Firebase				
Protótipo do script de instalação				0
Finalização do script de instalação				0
Deploy das operações no Firebase				8
Deploy da DB no Firebase				
Demo para o Students@DETI				
Poster para o Students@DETI				
Relatório técnico				
Manual de utilização				

Communication Plan

Tools for organization

Communication and organization plan



Thanksl

Any questions?