



deti

universidade de aveiro
departamento de eletrónica,
telecomunicações e informática



Sistema de Gestão de Atividades Profissionais Confiáveis para Formação Médica na UA

M3 - Prototype Phase (MVP)

Grupo 3

Pedro Ponte - 98059

Tomás Brás - 112665

Carolina Silva - 113475

Afonso Ferreira - 113480

Ricardo Antunes - 115243



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CONTEXT



PAIS

Universidade de Aveiro vai abrir curso de Medicina

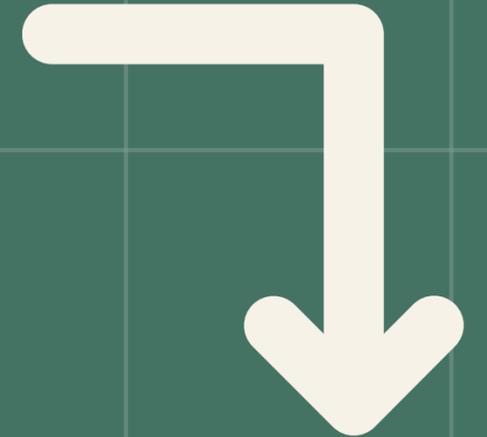
A atual proposta envolve ensino na UA e orientação tutorial clínica em três Unidades Locais de Saúde, designadamente a ULS Região de Aveiro, a ULS Entre-Douro-e-Vouga e a ULS Gaia/Espinho, no âmbito do Centro Académico Clínico Egas Moniz Health Alliance.



New Medicine course at UA

Constant evolution of students

Evaluation on paper



PROBLEM

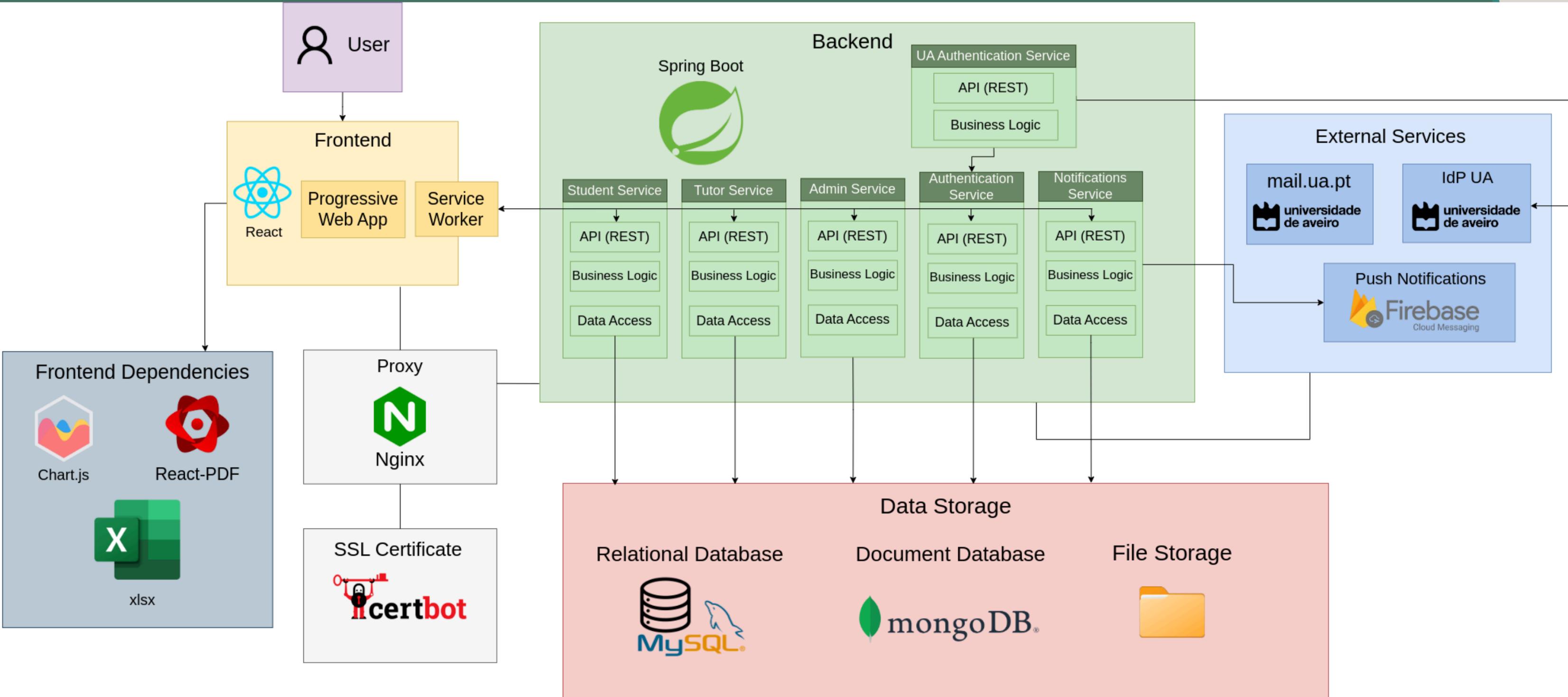
- Too much information on a single sheet of paper
- Difficult organization between student and tutor
- Lack of feedback and statistics



Integrated digital system for managing Entrustable Professional Activities (EPA)



Architecture Diagram



ACTORS

- **Medical Student**
- **Tutor**
- **Administrator**



FEATURES IMPLEMENTED

Student:

- See details about evaluations
- Request reevaluations/feedback
- Filter MECs
- Perform self-evaluation
- View study resources
- Check statistics
- Download PDF with MEC details
- Locate USF



FEATURES IMPLEMENTED

Tutor:

- See details about evaluations
- Answer feedback request
- Accept/Deny reevaluation requests
- Perform USF Evaluation
- Check statistics
- Change between students seamlessly
- Add MECs to planned evaluations



DEMO WEB STUDENT

The screenshot displays the EvalMed web application interface. The browser's address bar shows 'EvalMed'. The page features a dark green sidebar on the left with the following menu items: Home, Estatísticas, Avaliação, Procedimentos, and Calendário. Below these, under the heading 'SUPORTE', are links for Perfil and Ajuda, and a Logout button. The main content area is white and contains a table of exam results, a section for evaluation levels, and a form for submitting a question.

EVAl MED

Bem-vind@ **Ricardo Antunes!**

15. Exame objetivo do joelho	N2	N3
16. Exame objetivo da coluna lombar	N1	N3

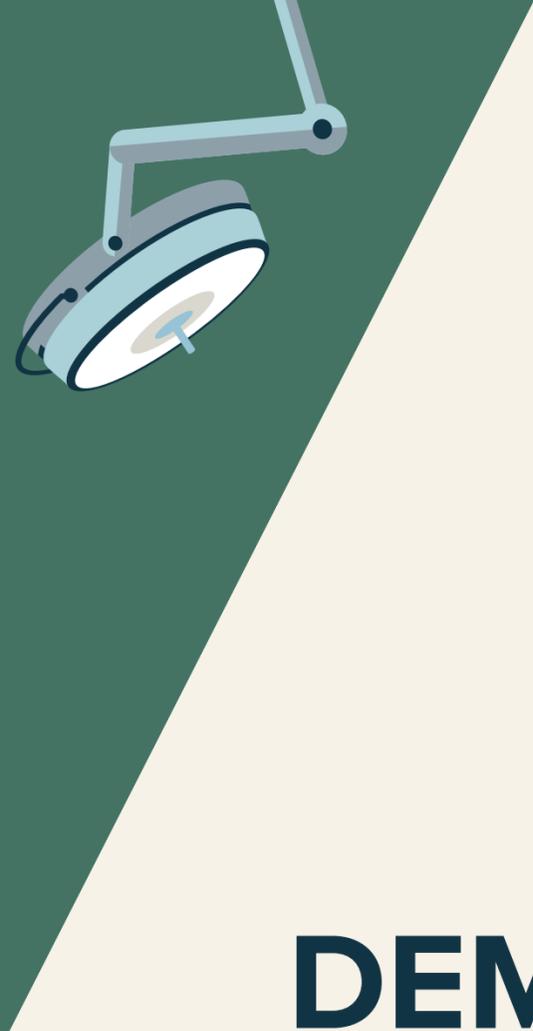
Níveis de avaliação
N1 - O estudante observa a execução e discute-a com o seu tutor;
N2 - O estudante realiza com supervisão direta;
N3 - O estudante realiza com supervisão indireta, com tutor disponível.

Descreve o problema:

Escreva a sua pergunta para ser respondida pelo tutor

SUBMETER RESPOSTA

The bottom of the image shows a Windows taskbar with various application icons including Firefox, File Explorer, VLC, LibreOffice, a terminal, VS Code, settings, a medical application, Chrome, SSD, and Recycle Bin.



DEMO APP TUTOR

 **Bem-vindo Afonso Ferreira!**
Tens 0 notificações 

Aluno Selecionado:

 Ricardo Antunes NºMEC: 115243 Medicina Clínica I 

Local: Não definido

MEC	Auto-Avaliação
EPA: 1. Realização de consulta médica Sub-EPA: 1.2 Realização de exame físico geral 1.2.3 Medição da pressão arterial	  
EPA: 1. Realização de consulta médica Sub-EPA: 1.2 Realização de exame físico geral 1.2.9 Medição do perímetro abdominal	  
EPA: 1. Realização de consulta médica Sub-EPA: 1.4 Realização de exame neurológico 1.4.4 Avaliação da acuidade visual no adulto	  

 Avaliação  MECs  Home  Calendário  Perfil

WORK DONE

BACKEND

- Backend services logic enhanced
- Scan official documentation about MEC procedures and turn them into MongoDB documents
- Creation of JWT tokens for authentication and for API requests where users can only ask for their related information
- Future-Oriented logic implemented

FRONTEND

- Authentication working on localhost
- PWA downloadable on localhost
- All Student / Tutor pages finalized, calling backend API
- Most Admin Components have been started and are connected missing organization

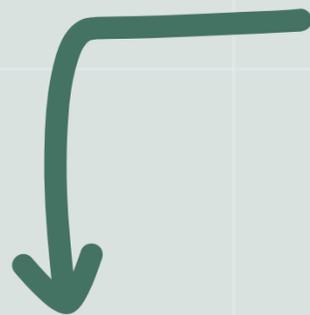
CHALLENGES

UA's IdP only allows certain callback URL's

INVALID REQUEST

`invalid_callback`
Registered callback does not match with the provided url.

To counteract this we tried to use Nginx and map the callback url to the localhost allowed port.



HTTPS and deployment has been delayed until we are given more permissions from STICs



For Push Notifications we need HTTPS so while they are implemented they aren't working yet

Future Work

- **Deployment**
- **Nginx and HTTPs Certificates**
- **Improve administrator functionalities**
- **Multi-Language**
- **Push/Email Notifications**
- **Usability / Performance Tests in Real Scenario**
- **PDF Generation**
- **Add MECs**





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Thank you!

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Does anyone have any questions?

Follow the project updates on:
<https://github.com/bio-informatics/EPA>



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