



Sistema de apoio à criação da Distribuição do Serviço Docente - Milestone 3

Projeto em Informática

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TABLE OF CONTENTS



01 QUICK RECAP

04 ISSUES

02 TASK DISTRIBUTION

05 NEXT STEPS

03 WORK DEVELOPED



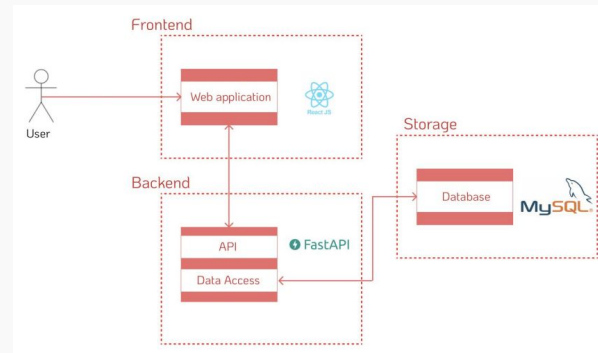
QUICK RECAP

To sum up:

- We had previously shown things like our mock-up, domain module, and system architecture;
- Now we are going to show our progress so far, as well as what is left to be done and what can be improved;



The screenshot displays a web application interface with a complex grid of data. The interface includes a sidebar on the left with navigation links like 'Inteligência Humana', 'Computador', and 'P (2h) TP (2h)'. The main area features a grid with columns for 'DSD', 'Sabáticas', 'Contactos', 'Alterar Siglas', and 'Definições'. Each cell in the grid contains text and small colored icons. At the top, there are search bars and filter dropdowns. The right sidebar shows a user profile for 'Tomás António Mendes Oliveira e Silva' and a list of recent activities or logs.



TASK DISTRIBUTION

- **Interface**

- **Análise de requisitos**

- Apresentação gráfica (esboço da interface) [JT+AG 2d] ✓
 - Funcionalidades [PM+EF 2d] ✓

- **Implementação em React**

- Aprender React [TODOS 3d] ✓
 - Definir estrutura de pastas e layout da homepage [TODOS 1d] ✓
 - Programar Interface [PM+EF 10d] 🔗

- **Testar a interface com utilizadores**

- Testar com colegas/Profs. do Deti/Profs. outros depts. [TODOS 2

- **API**

- Conexão aos containers da interface e BD [JT 1h] ✓
 - Métodos get/post/... [JT+AG 3d] 🔗
 - parâmetros opcionais [JT+AG 3d] 🔗

- **Base de Dados**

- DDL [JT+AG 1d] ✓
 - DML (script) [JT+AG 3h] ✓
 - Queries/UDFs/Views [JT+AG 3d] 🔗

- **Deployment**

- Docker Containers [JT 2d] ✓
 - Configurar VM Azure [JT 2h]

- **Gestão do projeto**

- Atribuir tarefas [JT]
 - Criar milestones [JT]
 - listar dependências de tarefas + Gantt Chart [JT 1d] ✓

- **Relatório e documentação**

- Elaboração [AG+PM+EF 4d]

CALENDAR PROGRESSION

MILESTONE 1	MILESTONE 2	MILESTONE 3	MILESTONE 4
22/03/2022	05/04/2022	03/05/2022	21/06/2022
✓	✓	✓	⌚
Context & Calendar Lifecycle Objectives & Website	Project Architecture & Requirements Analysis	Product development & Initial prototype	Complete development of all functionalities & Technical Report
			Product release & Some fixes

Already done to today's date:

- Started development of Interface;
- DB implementation;
- Docker containers
- API development;

WORK DEVELOPED

Frontend

- Cells sorted by color and capacity (TP, P, T, ...);
- Information from the API;
- Detailed information of uc and teachers;

ACE	Aplicacionais para ciencias e engenharia	NBC 80	2 50	CCB	
ACA	Arquitectura de computadores avançada	JCP 80			
ARA	Arquitectura de redes avançadas	ICO 80	2	ARN	2 25
AC1	Arquitetura de computadores i	IOU 80	2 25	JLA	

WORK DEVELOPED

Backend

- Creation of data tables, as well as the population with relevant data (based on the DSD from the previous year)
- Queries, UDFs and views to allow for the organization of data

+ Opções

uc_acronym	uc_name	component	class_hours	availability_percent	prof_acronym	prof_name
AA	ALGORITMOS AVANÇADOS	T	2	100	LFA	Luis Filipe Mesquita Nero Moreira Alves
AA	ALGORITMOS AVANÇADOS	T	2	50	PC	Pedro Miguel da Silva Cabral
AMS	ANÁLISE E MODELAÇÃO DE SISTEMAS	P	2	25	AP	Armando José Formoso de Pinho
AMS	ANÁLISE E MODELAÇÃO DE SISTEMAS	P	2	100	AGC	António Guilherme Rocha Campos
ACE	APLICACIONAIS PARA CIÊNCIAS E ENGENHARIA	T	2	25	JM	Joaquim João Estrela Ribeiro Silvestre Madeira
ACE	APLICACIONAIS PARA CIÊNCIAS E ENGENHARIA	T	2	50	CCB	Carlos Alberto da Costa Bastos
ARA	ARQUITECTURA DE REDES AVANÇADAS	P	2	100	JFR	José Rodrigues Ferreira da Rocha
ARA	ARQUITECTURA DE REDES AVANÇADAS	T	2	100	ARN	António José Ribeiro Neves
ARA	ARQUITECTURA DE REDES AVANÇADAS	P	2	25	ML	Mário José Neves de Lima
AC1	ARQUITETURA DE COMPUTADORES I	P	2	50	APS	Adão Paulo Soares da Silva
AC1	ARQUITETURA DE COMPUTADORES I	P	2	25	JLA	José Luis Costa Pinto Azevedo
CBD	COMPLEMENTOS DE BASES DE DADOS	P	2	25	EVM	Ernesto Fernando Ventura Martins
CV	COMPUTAÇÃO VISUAL	T	2	25	AG	Atílio Manuel da Silva Gameiro
E	ELECTRÓNICA	T	2	25	JLC	José Luis Vieira Cura
E	ELECTRÓNICA	P	2	50	JAF	José Alberto Gouveia Fonseca
EP	ELECTRÓNICA DE POTÊNCIA	T	2	50	ARB	António Rui de Oliveira e Silva Borges
EP	ELECTRÓNICA DE POTÊNCIA	P	2	25	FMS	Filipe Miguel Teixeira Pereira da Silva
E1	ELECTRÓNICA I	T	2	100	IOU	Ioulia Sklarova
E1	ELECTRÓNICA I	P	2	50	PG	Pétia Georgieva Georgieva

```
{
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      "uc_name": "ALGORITMOS AVANÇADOS",
      "component": "T",
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      "availability_percent": 100,
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      "prof_name": "Luis Filipe Mesquita Nero Moreira Alves"
    },
    {
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      "uc_name": "ALGORITMOS AVANÇADOS",
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      "prof_name": "Pedro Miguel da Silva Cabral"
    },
    {
      "uc_acronym": "AMS",
      "uc_name": "ANÁLISE E MODELAÇÃO DE SISTEMAS",
      "component": "P",
      "class_hours": 2,
      "availability_percent": 25,
      "prof_acronym": "AP",

```

WORK DEVELOPED API

GET / Read Root



GET /v1/classes/ Get Classes



GET /v1/departments/ Get Departments



GET /v1/professors/ Get Professors



GET /v1/dsders/ Get Dsders



GET /v1/courses/ Get Courses



GET /v1/ucs/ Get Ucs



GET /v1/wishlists/ Get Wishlists



GET /v1/assigned_classes/ Get Assigned Classes



DOCKERS

- For reasons of ease of development, debugging and for being the recommended method in the official docker documentation, we decided to create a dedicated container for each service.
- Regarding performance losses in this approach, docker is extremely efficient because, unlike traditional VMs, it only creates an isolated filesystem and uses the host OS kernel.

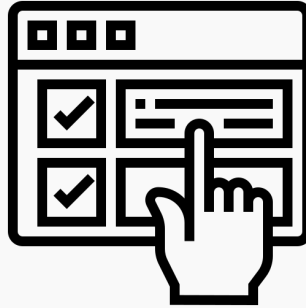
```
root@36fe9eff1255:/backend/api# ping 172.18.0.4
PING 172.18.0.4 (172.18.0.4) 56(84) bytes of data.
64 bytes from 172.18.0.4: icmp_seq=1 ttl=64 time=0.067 ms
64 bytes from 172.18.0.4: icmp_seq=2 ttl=64 time=0.058 ms
64 bytes from 172.18.0.4: icmp_seq=3 ttl=64 time=0.057 ms
64 bytes from 172.18.0.4: icmp_seq=4 ttl=64 time=0.077 ms
64 bytes from 172.18.0.4: icmp_seq=5 ttl=64 time=0.044 ms
64 bytes from 172.18.0.4: icmp_seq=6 ttl=64 time=0.045 ms
```

NEXT STEPS

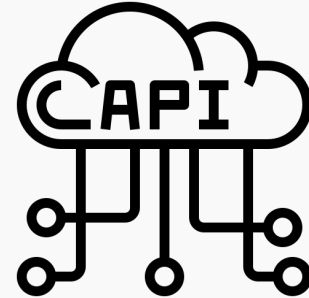
What is left to do:



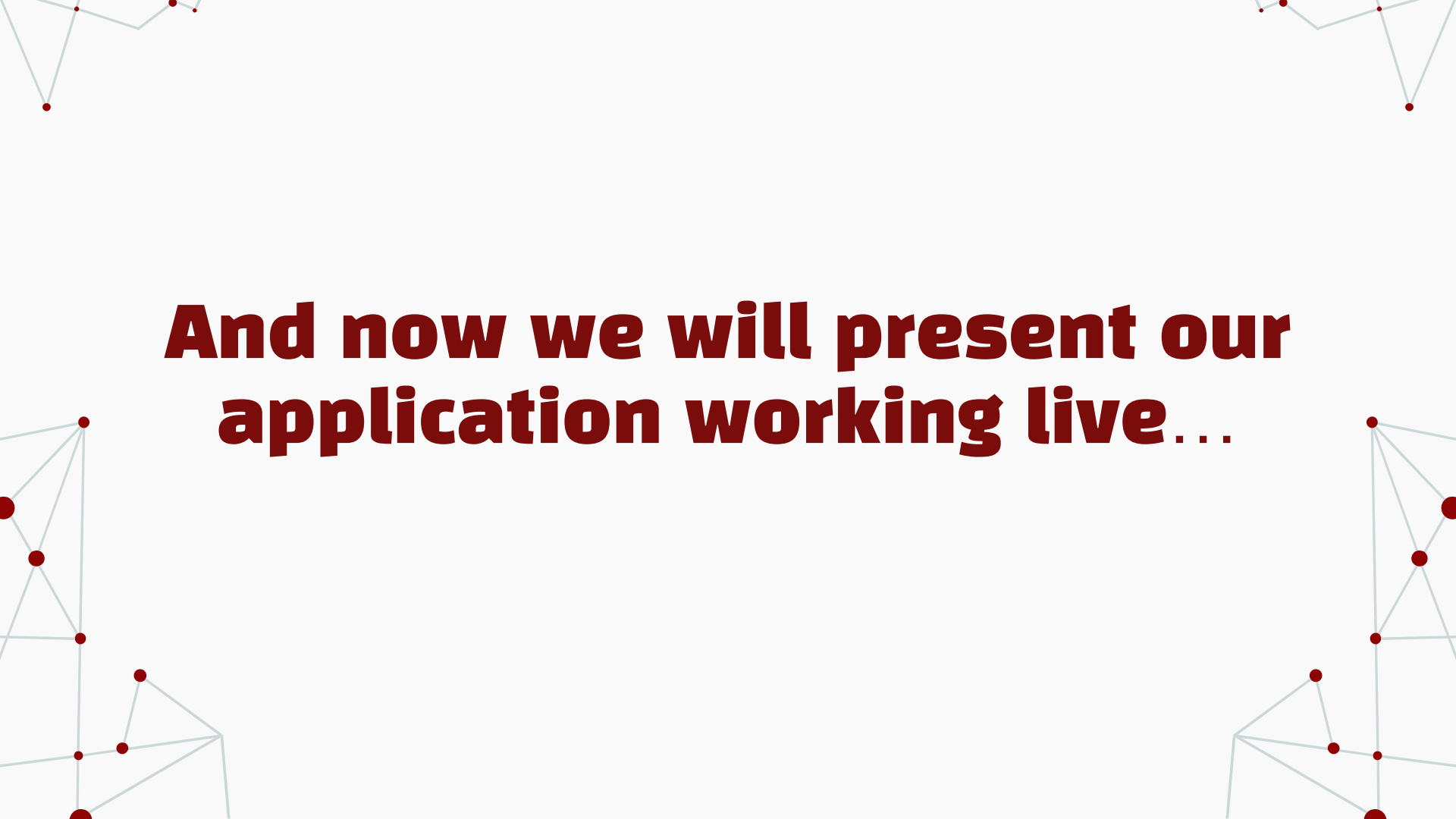
Configure Azure VM



Finish Interface and
export DSD



Implement new
API methods



**And now we will present our
application working live...**