TECHNOLOGY REPORT HYP 2023/24

OUR WEBSITE
OUR GITHUB REPOSITORY

Group name: 'WE DON'T HAVE A NAME'
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1. Division of Labour in the team

First and foremost, we want to emphasize how the team, initially composed of only Rosita and Francesco who knew each other, came together to work with dedication, freedom, and harmonious camaraderie among all four members. Beginning with practical aspects, Bohan's proficiency in IT played a pivotal role in developing the website, making substantial contributions. Francesco and Rosita also contributed to the website development, striving to emulate the design envisioned by Lucija, the site's aesthetic designer. The usability project was a collective effort among all four team members, with Rosita and Francesco focusing particularly on content and Lucija on design. The implementation of the chatbot function was primarily handled by Bohan, Lucija, and Rosita, while Francesco initially led the content design efforts, culminating in a collaborative final outcome. Pleased with our teamwork, we can confidently state that each member made significant contributions to the project in their respective areas of expertise. Consequently, we collectively agreed to allocate 25% of the total effort required to each member of our group.

2. Short Documentation

Hosting services
We decided to use GitHub pages as our hosting service due to the following reasons:
 1. Free: GitHub offers hosting for static websites completely free of charge
 2. Simplicity: As an integrated part of the service offer by GitHub it requires less effort to understand
 3. Integration: It is possible to create an automatic CI/CD process combining GitHub actions with GitHub pages
 4. Support: GitHub provides extensive tutorials and documentations for troubleshooting with GitHub pages

Rendering mode
For the rendering mode of the website, we decided that Static Site Generation (SSG) would best fit the needs of the website. While the website doesn't contain a heavy amount of contents like images or videos, the large majority of them would not require any changes once published. Accompanied by the fact that we've decided to use GitHub pages as our hosting service, Static Site Generation would be the best choice for our case of use.

Project structure
Pages and link

Page	Url	Description
Home	/	Homepage of the website, with the latest project, the mission of the center, and its history
People	/people	List of all the team members of the center, with their photo, name, and short description
Person	/people/[id]	Detailed information of each team member, with their photo, name, social media links, short description, past experiences, and projects/services they're in charge of
Projects	/projects	List of all the projects of the center, with their name, short description, and photo
Project	/projects/[id]	Detailed information of each project, with their photo, name, short description, person in charge, detailed description, and related projects
Services	/services	List of all the services of the center, with their name, short description, and photo
Services	/services/[id]	Detailed information of each service, with their photos, name, short description, objectives, detailed descriptions, and testimonials by the person in charge of the service as well as others
All activities	/all	List of both all the projects as well as the projects of the center

About us	/about	More detailed introduction of the center
Contact	/contact	Contact information of the center
Donate	/donate	Donation page for the center

Components

We have created two components for the project: the header and the footer. While other elements of the website in different pages could be made into components, we decided to include slight differences while maintaining a similar approach for elements of similar purposes.

Component	Usage	Content
Header	On the top of all pages, with the page content scrolled below	Logo of the center Link to the main sections
Footer	On the bottom of all pages, scrolled along with the page content	Logo of the center Link to the main sections Link to the social media accounts Copyright information

Server endpoints

To access the data in the database, we have created 4 server endpoints for data access:
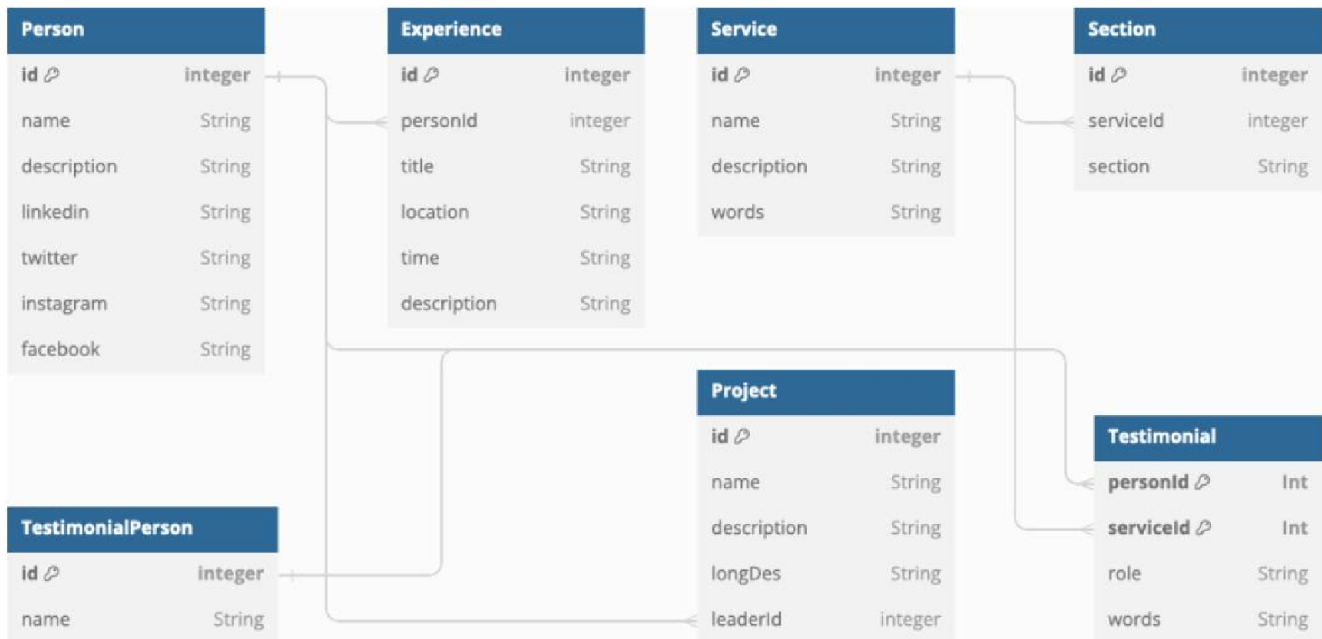
Url	Description
/api/people	Returns the full list of the team members of the center
/api/people/[id]	Returns the person of the team with the id, or the name of the person not of the center but provides testimonial for the services
/api/projects	Returns the full list of the projects of the center
/api/services	Returns the full list of the services of the center

All of these server endpoints return in strings, either in json format or in literal string in case of testimonial person's name.
While the additional server endpoints such as "/api/projects/[id]" and "/api/services/[id]" seems useful, all the pages of the website where these two endpoints might be of use already call "/api/projects" and/or "/api/services", rending the implementation of these two endpoints redundant.

Database

Our data is stored in a sqlite database, with data written and read by Prisma OSM. We have created 6 tables for the data:

Person			Experience			Service			Section	
id	integer		id	integer		id	integer		id	integer
name	String		personId	integer		name	String		serviceId	integer
description	String		title	String		description	String		section	String
linkedin	String		location	String		words	String			
twitter	String		time	String						
instagram	String		description	String						
facebook	String									

Project			Testimonial	
id	integer		personId	Int
name	String		serviceId	Int
description	String		role	String
longDes	String		words	String
leaderId	integer			

TestimonialPerson	
id	integer
name	String

To simplify the access of data, we have created three services inside /server/database, as well as a JavaScript file (/server/database/database_init.js) that is used to initialize the data of the database.

Accessibility

Accessibility is an important focus during the development of our website. We have focused on the following points to make sure that our website is available to the widest group of people:

- Alternative text: We've included informative and descriptive alternative texts for all the images and form fields of our website.
- Structural elements: We've provided web pages with clear structure elements inside, including different levels of headings, to ensure easy navigation and facilitate a better experience with accessibility applications.
- Tab navigation: The website is entirely navigable with tab key and arrow keys. We've designed a path of the elements inside each page so that all links and important title texts would be directly focused one by one with tab key, and made sure that the same element transition would be displayed for focus as a cursor hover.