Figure 1:

POLITECNICO DI MILANO
COMPUTER SCIENCE ENGINEERING

Hypermedia Applications

Technology Report - ByYourSide
`https://byyourside.vercel.app`

Students

Demiraj Arbi - 10683403

Fiano Michael - 10676595

Palumbo Francesco - 10711027

Emails

arbi.demiraj@mail.polimi.it

michael.fiano@mail.polimi.it

francesco1.palumbo@mail.polimi.it

Academic Year 2023-2024

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Chapter 1

Introduction

Group Name: HyperMic

Technical documentation for the project of the 2023/2024 course "Hypermedia Application (Web and Multimedia) of Politecnico di Milano, degree in Computer Science Engineering.

Group Members

- Demiraj Arbi
- Fiano Michael
- Palumbo Francesco

Links

Github Repository: `https://github.com/arbidemiraj/Hypermedia_2024_Demiraj_Fiano_Palumbo`
Website Link: `https://byyourside.vercel.app/`

Chapter 2

Work Breakdown

Initially, common guidelines were defined and despite of the fact that each member was able to work on every aspect of the development, the particular focuses were:

Demiraj Arbi	Components, Pages
Fiano Michael	ChatBot, Pages
Palumbo Francesco	Pages, CSS, Database queries

Chapter 3

Documentation

3.1   Chosen Theme

The website that we implemented is dedicated to a social center "ByYourSide", which aim is to support, protect and help women who are suffering any kind of violence or abuse from men in any field (domestic, social, or professional).

3.2   Technologies and Motivations

- **Server Side:** we opted for **Nuxt Nitro API Endpoints**;

- **Hosting:** the choice was **Vercel** hosting service;

- **Database:** we selected **Supabase** SQL database, which is based on PostgreSQL;

- **Rendering:** we opted for **Server Side Rendering (SSR)** option to render pages on the server side. This choice allows web crawlers to better index the website, resulting in better ranking in search results

- **Script:** we decided to implement our application through **JavaScript**, inserting the useful script into the page itself;

3.3   Project Structure

This section aims at describing in details the structure of our project, starting from the pages organization to the compoments list.

3.3.1 Pages and Links

Here is the complete list of the pages included in the website that come with their url and a brief description.

Page	URL	Description
Home	/	Website's homepage, containing a summary of all of its contents and elements, providing links to every page
About Us	/aboutUs	Description of the mission, history and information on how to reach the center
Contact Us	/contactUs	Help Form, phone number and email address
Activities	/activities	Page containing 3 top projects and services, with the links to reach the group pages
Projects	/activities/projects	Contains all the projects with their description and a logo
Services	/activities/services	Contains all the services with a brief description and an image
Project	/activities/projects/[id]	Single project with its full description and responsible
Service	/activities/services/[id]	Single service with its full description, responsible and testimonials
Team	/team	Full team presentation with profile pictures and names
Person	/team/[id]	Single person presentation with full personal information and managed activities (if present)

3.4 Components

We decided to implement some components in order to light up the code and maximize its reusability, especially for the elements that were repeated throughout the pages and within one page. Following, the various components implemented:

- **ChatBot**

  This is the component that handles the chatbot interface and logic

- **Header**

  This is the default navigation bar which is positioned on top of each page, containing the transitional links to all of the topics

- **Footer**

  This is the default footer present on the bottom of all pages, it is a fixed component and it is responsive for mobile devices.

- **FaqItem**

  This is the item used to display a question and the answer in the home page faq section

Prop	Type	Notes
question	String	the question to display
answer	String	the answer to display

- **Loader**

  This is the default loader component.

- **Project**

  This is the card used to show the main information for a project

Prop	Type	Notes
title	String	the title of the project
image	String	the url of the project's logo
description	String	the description of the project
id	/	Number	the id of the project

- **Service**

  This is the card used to show the main information for a service

Prop	Type	Notes
title	String	the title of the service
icon	String	the name of the service's icon
description	String	the description of the service
id	Number	the id of the service

- **TeamMemberCard**

  This is the card used to show the main information for a person in the team section

Prop	Type	Notes
id	Number	the id of the displayed person
name	String	the name of the person
surname	String	the surname of the person
image	String	the url of the person's profile picture

- **ScrollToTop**

  This is the component that handles the scroll back to the top feature

Prop	Type	Notes
tabIndex	String	the title of the service
ariaLabel	String	the name of the service's icon

3.5   Modules and Libraries

Here is the list of the official nuxt 3 modules we have decided to import.

Module	Description
@nuxtjs/supabase	A wrapper around supabase-js to enable usage and integration of supabase DB within Nuxt.
nuxt-icon	This module gives us access to modern and standard icons
vue3-carousel-nuxt	This module integrates the Vue 3 Carousel component with Nuxt 3 allowing us to use the carousel component for showing the projects
nuxt/fonts	This module is used to import fonts inside the application

3.6   Best Practices

All the principles of accessibility have been followed correctly. Here are some of the measures adopted:

- Short descriptions of non-text content (such as images) are provided

- Labels for form controls, input, and other user interface components are provided

- Headings, lists, input fields, and content structures are marked-up properly

- Foreground and background color combinations provide sufficient contrast-ratio

- Images of text are avoided

- Pages have clear titles and are organized using descriptive section headings

- There is more than one way to navigate between relevant pages

- The purpose of a link is evident

- Buttons, links, and other active components are large enough to make them easier to activate by touch

From the **SEO guidelines** point of view we developed with attention to SEO score.
In addition to what is listed above, all pages have been provided with appropriate meta tags.

All the pages of the website have been analyzed with Google Lighthouse: all Performance, Best Practices and Accessibility tests have been successfully passed with an average between 90 and 100.