Politécnico de Viseu
Tecnologia e Gestão Viseu

Aplicações para a Internet I

Practical project

Creation of an static website

Riveiro's Coffee Website

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Ano 2º Semestre 1º Ano Letivo 2025/2026

1. Project Definition and Context

The objective of this project was to develop a static functional website based on a modern coffee shop web page.

The theme was selected because it could represent a day-to-day page, also allowing us to apply all the technologies and concepts learned in the course, including navigation structure and user interaction.

From the beginning, the objective was to ensure that it was functional and intuitive but also creating a visually pleasant website.

2. Analysis Phase

Target Audience and Its Characteristics

The target audience defined for the website consists mainly of young adults, university students and tourists visiting the city. Users who are familiar with digital platforms and are used to browsing websites on a daily basis.

We wanted to do a simple website easy to understand avoiding the use of confusing elements and extras.

For the compatibility of the website with different screen sizes we used a responsive design by the use of flexible container, percentages and CSS techniques.

User Needs, Tasks and Expectations

Most users want to quickly access important information, such as the menu, opening hours or location. They also expect simple actions like calling the coffee shop or making a reservation to be easy and convenient.

Therefore, this website features a clean and concise navigation system with intuitive indexes that link directly to the most important sections. The contact and membership forms are also designed to be simple and clear, with explicit confirmation information to ensure users can complete them smoothly.

Project objectives

The main objective of the project was to develop a complete and functional website that realistically represents a coffee shop and provides useful information to its visitors. These objectives are mainly qualitative, focusing on usability, clarity and user experience.

However, some objectives can also be evaluated quantitatively. For example, the number of contact messages stored in localStorage and the number of reservations submitted through the reservation form can be used as indicators of user interaction and engagement.

Website ttitude

We decided that the website should have a friendly, calm and trustworthy attitude. The intention was to reflect the relaxed atmosphere of a coffee shop so users feel comfortable while browsing.

This attitude was gained through a clean layout, simple language and the avoidance of aggressive colors or complex visual elements.

Sensations to be transmitted to the user

We tried to transmit comfort, warmth and proximity. The goal was to make users feel welcome and encourage them to stay on the website and explore its content.

These was achieved withthe use of warm colors, balanced spacing, readable typography and smooth interactions, such as hover effects and transitions.

Dominant Colors

The analysis identified brown, beige and white as the dominant colors for the website, commonly associated with coffee, pastries and warm environments.

They were consistently applied across all pages to reinforce the identity of the coffee shop and create a coherent visual experience.

Desired Functionalities and Content

Based on the analysis, several key functionalities were identified as essential for the website, including an image slider on the main page to enhance visual appeal, a navigation menu with submenus for better organization, a contact form implemented in React and a reservation form implemented in JavaScript.

Additionally, we implemented a continuous display of the current date and time on all pages to ensure the project requirements and provide real-time information. Also thelocation image was made interactive by linking it directly to Maps, allowing users to quickly access the coffee shop’s location.

Measuring Website Success

The success of the website can be measured by observing how users interact with it. The number of messages submitted through the contact form and stored in localStorage provides an objective measure of user engagement.

Similarly, the number of reservations submitted through the reservation page allows evaluating whether users find the website useful and easy to use. These metrics make it possible to assess whether the project objectives were successfully achieved.

Brief conclusions after analysis

This analysis phase played a fundamental role in guiding the entire development process. All design and implementation decisions were made based on the answers to these questions, ensuring that the final website is coherent, functional and aligned with user expectations.

3. Navigation Map and Structure

Before implementation, a navigation map was defined to organize the content logically, simple and hierarchical, helping users understand where they are and how to move between pages, including a home page, a submenu section, a reservation page and a contact page. This structure ensures clarity and ease of navigation.

4. Layout and Design Decisions

The layout of the website was implemented using wrappers and modern layout techniques such as Flexbox and CSS Grid. Tables were not used for layout purposes.

The design prioritizes the use of relative units such as percentages to ensure flexibility and responsiveness. Fixed pixel units were used only for visual details such as padding, border radius and shadows.

An effort was made to maintain a balance between graphical and functional components. The website is visually appealing without being overloaded, while still offering relevant and useful functionalities.

5. Technologies Used

The website was implemented using the technologies required by the project guidelines such as HTML5, which was used to create a semantic structure, making use of tags such as header, nav, main, section and footer.

Also we used CSS3 to style the website, define the layout and ensure responsiveness across different screen sizes.

Another technology used was JavaScript, this one for implementing dynamic functionalities such as the image slider, interactive navigation menus and the real-time display of the current date and time.

Lastly, React was used to develop a stateful contact form component that manages user input, validates data and stores submitted messages in the browser’s localStorage.

6. Implemented Functionalities

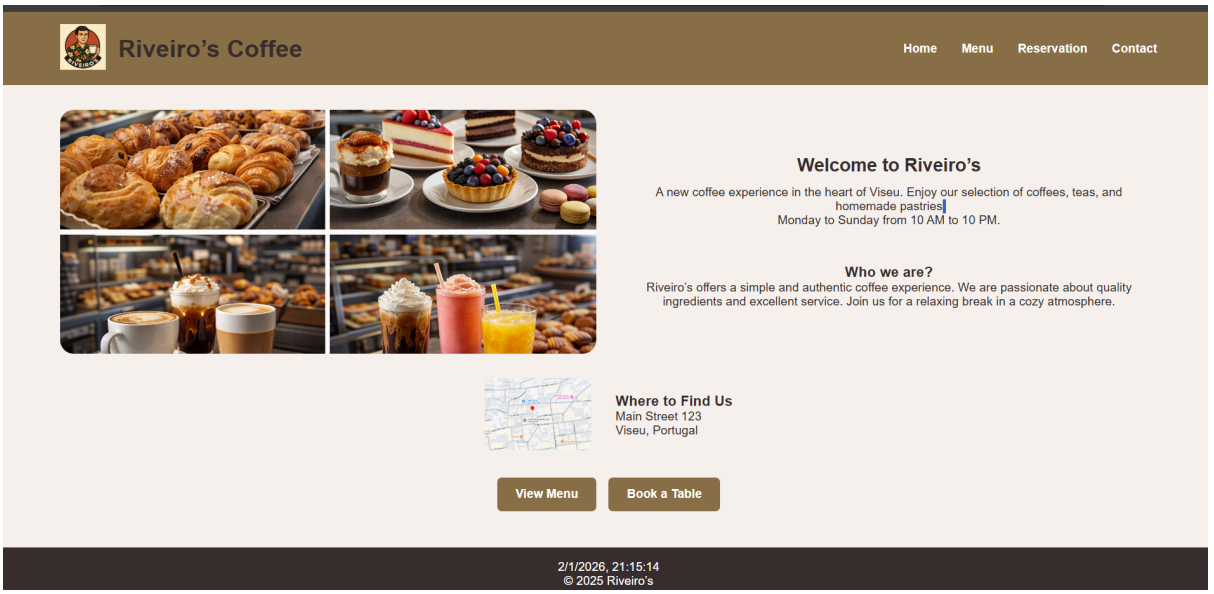
On the main page, an automatic image slider with at least three images was implemented using JavaScript which changes images according to a predefined time interval, also we used this for the implementation of the current date and time on all pages.

The navigation menu includes submenus and interactive effects implemented using CSS and JavaScript, improving usability and visual feedback.

With React we implemented the contact form as a stateful component, allowing users to enter their name, reason for contact, email, phone number and message. All fields are validated for format and obligatoriness, and the submitted data is stored in localStorage.

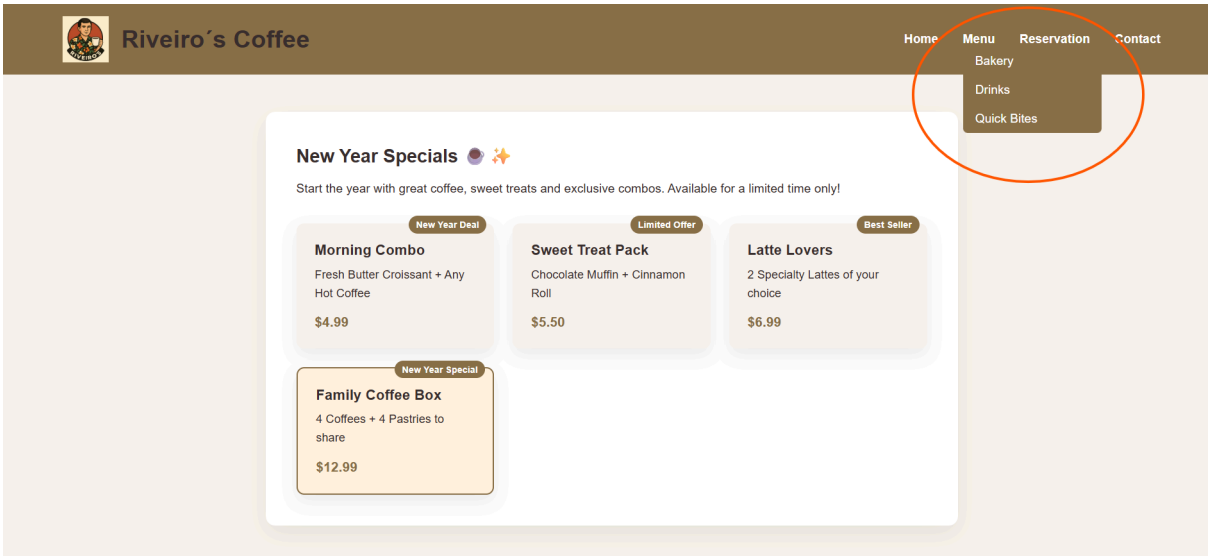
A reservation form was also implemented using JavaScript, including validation and user feedback upon successful submission.

7. Screenshots and explanations

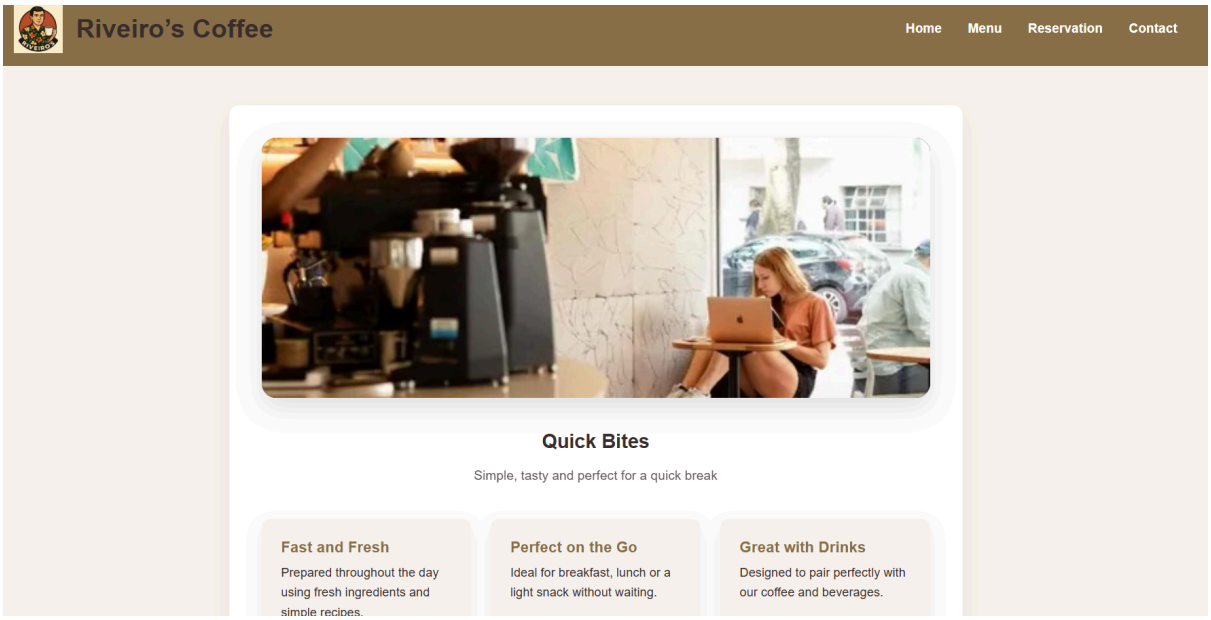


This screenshot shows the home page of the website. An automatic image slider implemented using JavaScript is displayed, with images changing at a fixed time interval. The navigation menu and the current date and time are also visible, fulfilling the project requirements.

Navigation menu with submenus

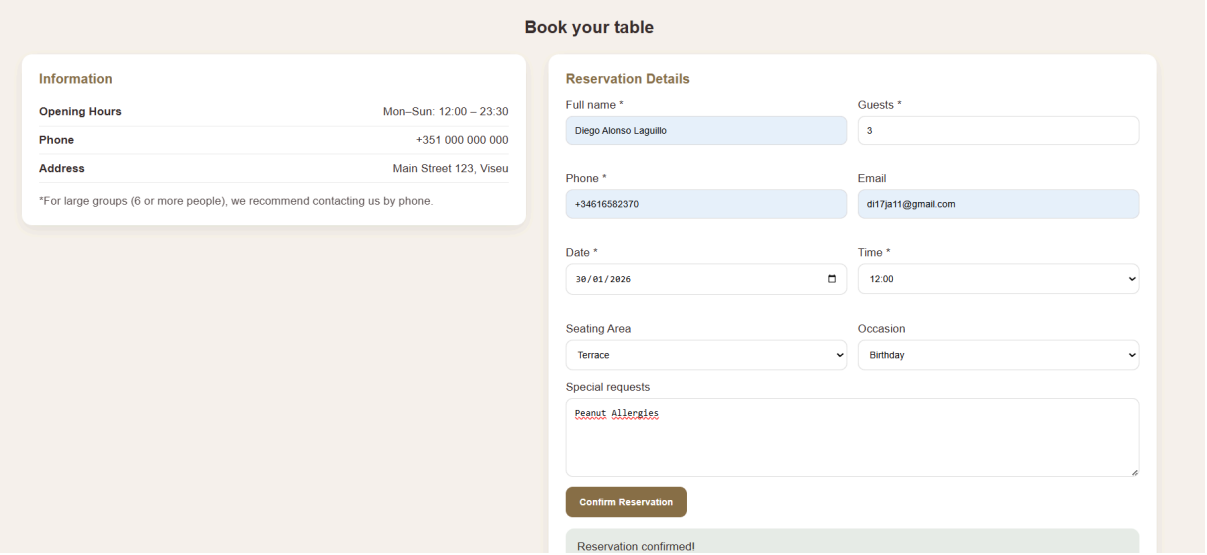


This screenshot presents the navigation menu with submenus. Hover effects and interactive behavior were implemented using CSS and JavaScript to improve usability and user experience.



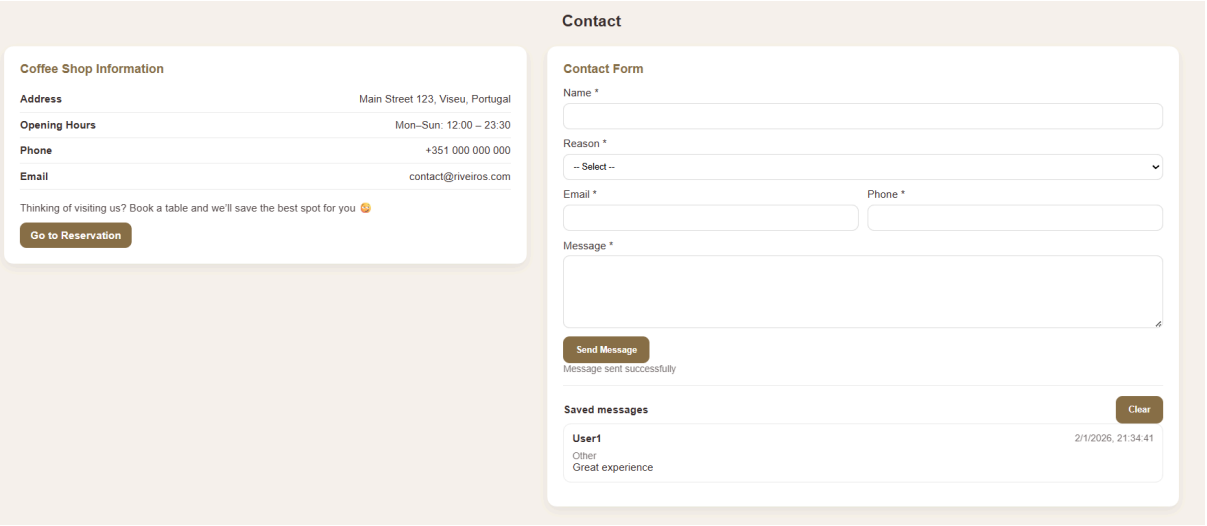
This screenshot shows one of the menu sections. The layout was implemented using flexible CSS containers and Grid, allowing the content to adapt to different screen sizes.

Reservation page



This screenshot displays the reservation page. The form was implemented using JavaScript and includes validation of required fields, providing feedback to the user upon submission.

Contact page (React form)



This screenshot shows the contact page, where a stateful React component was implemented. The form validates user input and stores submitted messages in the browser's localStorage.

8. Conclusion

The development of the website allowed the practical application of all the concepts taught in the Web Applications I course.

All requirements defined in the project guidelines were respected, including the use of mandatory technologies, flexible layout design, semantic HTML and the implementation of dynamic functionalities using JavaScript and React.

The final result is a coherent, functional and user-friendly website that meets the objectives established during the analysis phase.

9. Bibliography

The following resources were consulted during the development of this project:

Youtube CSS and JS courses :

CSS https://www.youtube.com/watch?v=TlJbu0BMLaY&t=4218s

JS https://www.youtube.com/watch?v=Z34BF9PCfYg

React https://www.youtube.com/watch?v=7iobxzd_2wY

React Official Documentation

Inspiration taken from starbucks web page

W3Schools