RMIT INTERNATIONAL UNIVERSITY VIETNAM

Static Website Technical Report

Department	School of Science, Engineering and Technology
Course number:	COSC2430
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Location & Campus (SGS or HN) where you study:	SGS
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I declare that in submitting all work for this assessment I have read, understood, and agreed to the content and expectations of the Assessment declaration.

Table of Contents

I. Introduction

The first assignment of the Web Programming (COSC2430) course required me to develop a static website utilizing fundamental programming languages. The ultimate outcome of this assignment was to equip each student with the necessary skills to create their own website. To accomplish this goal, I had to push myself to effectively organize the website's structure, establish links between pages, and enhance user interactivity by applying the provided course material and supplementing it with independent study.

This report will underscore the expertise employed throughout the assignment and further elucidate the website's implementation by drawing on the acquired knowledge and self-directed learning abilities.

Link to the website: https://nhatxminh.github.io/papyrus/index.html

II. Project description

The project primarily relies on programming languages covered in the lectures, as well as techniques acquired through self-learning and research.

1. HTML

The use of HTML in this project mainly focus on these aspects:

- Semantic tags: The tags that provide meaning to an HTML page rather than just representations. (header, main, section, footer.)
- Website layout: The construction and organization of the structure of a basic website (A clear division each section in the body.)
- Form: The form-based user interaction method to gather data. (The Contact Us page).

2. CSS

- Color: The use of different colors and how to mix them together to create an appealing website. (#FFFFFF, #000000 and #E8504D)

- Fonts: The use of styling for the words used on the website to create a concrete design. (Times New Roman for all the texts and different font weight for headings)

- Box model: The use of margin and padding to create appropriate spacing and alignments for the elements.

- Inline-level and block display: The appropriate use of each display (Inline for the checkboxes and its label)

- Position: The use of position to create different layouts and distinctive web designs. (The image in the Book Description)

- Pseudo class hover: Create hovering animation (hover on the menu or headings)

- Visibility: Create animation (Book shopping and favorite features)

- Transform: Create animation when hover (The book image)

- Flexbox: Create structured and precise layout (The book examples section)

- Media Query: Create a responsive website with regard to the width.

3. What I have learnt through this assignment

Throughout the assignment, I not only reinforced my existing knowledge but also encountered numerous new techniques. Firstly, I have become more adept at creating animations for website elements using CSS. Furthermore, my skills in organizing and positioning elements on a page have improved, particularly through the use of display: flex. I also gained new insights while attempting to create innovative animations with the visibility property. This project also marked my first experience with Media Queries, which allowed me to cater to a more diverse user base and further expand my expertise in utilizing this feature.

III. Implementation details

Overall, the website features a black and white color scheme with Times New Roman as the primary font. The design of the website is created to be reminiscent of a book, providing the user the most pleasant experience as they navigate its contents.

The home page of the website is inspired by [1], with many other unique features. First and foremost, the website is created with a comprehensive layout using semantic tags and a clear division of sections (header, hero section, main body, footer). The header of the page is applied position: sticky, so the user can access the menu bar anywhere on the web page. Also, the heading on the navigation bar has the hover animation of #E8504D to increase interactivity and attractiveness to users.
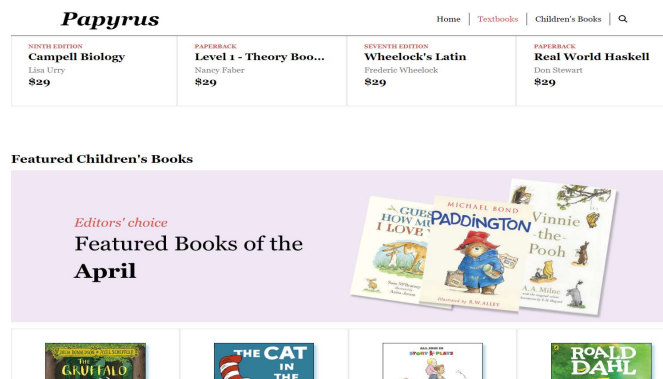

Fig 1. The sticky header + menu hover animation

Secondly, the book examples are divided into four equal parts that makes up the book exhibition place by using display: flex and justify-content: space-between. Also, the text overflow in the title of the book is display as "..." through the use of text-overflow: ellipsis. These combined factors help the layout of the exhibition become more consistent and clearer for better user experience.
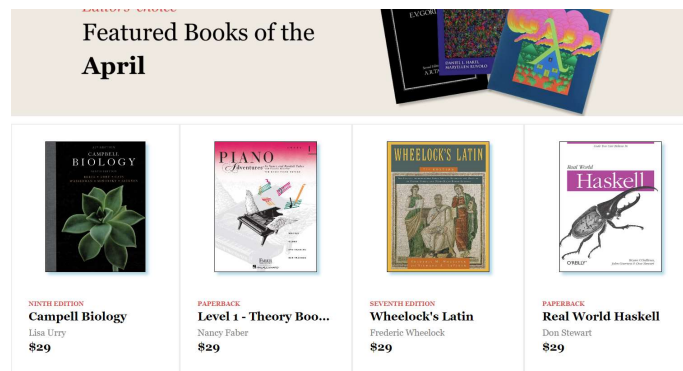

Fig 2. The book exhibition section

Furthermore, I have also added extra features to the website compared to the requirements. The preview description on the book exhibition will reveal a shopping cart and favorite icon when being hovered into. This effect is created by making use of visibility: hidden and the pseudo class :hover. The image will also become magnified when being hovered into, making it bigger and interactive.
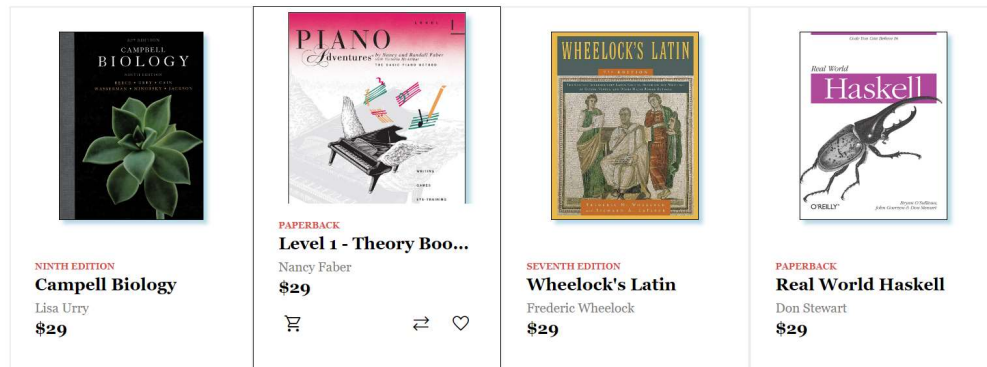

Fig 3. The animation when hover on the book

The book detail page is inspired by [2] with the main focus to further elaborate and marketing the book. The link to the detail page is in the first book of each category (textbooks, children's books). The book image is designed using position absolute, sitting in the middle of the black and white segment to create an artistic effect for the whole page. Meanwhile, the three small images is kept on the side of the large image by using justify-content: center for a better users' view.
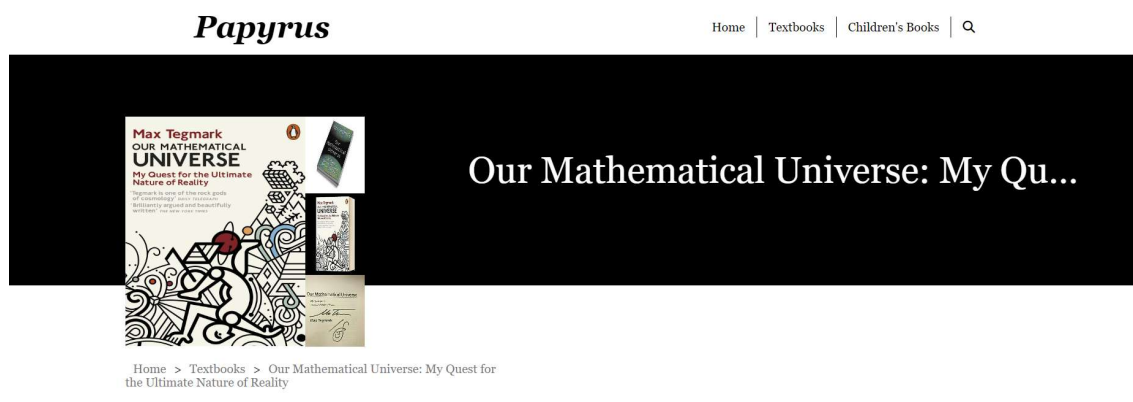

Fig 4. The display of the image in Book detail

The buttons and the book information is also being kept opposite to each other by the display: inline block. Thanks to that, the contents of the two parts are not mixed together. The buttons also have their hover animation of pressing down by being applied transform: translateY(-5px).
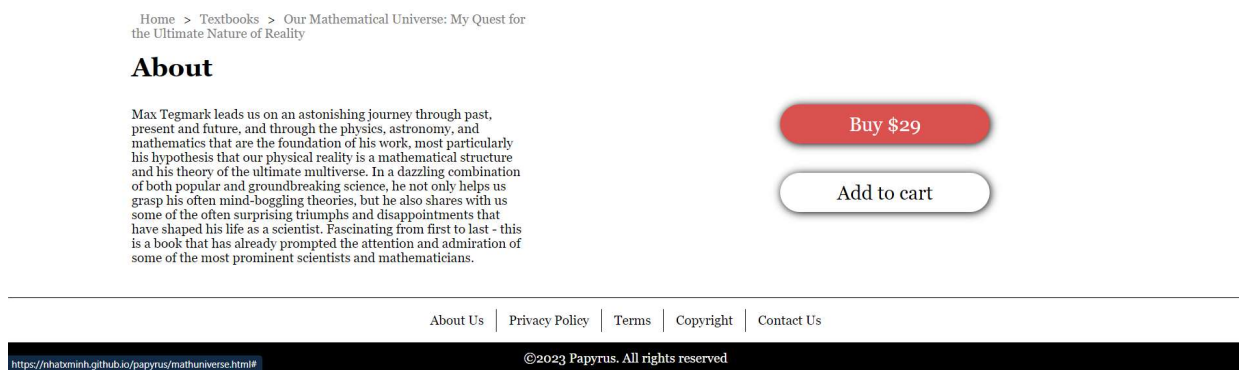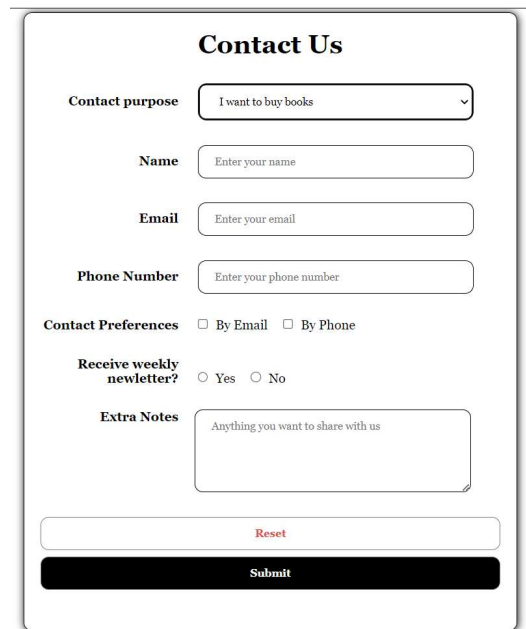

Fig 5. The button location and animation.

On the contact page, the interaction style is the form-based interaction which relies solely on users' input. The input field of the form has its border bold when being chosen by the pseudo class :focus. The form is also highlighted by its shadow created by box-shadow:

Fig 6. The Contact form.

The website also has responsive features to accommodate the diverse user groups. On the mobile platform, the horizontal navigation changes into the vertical navigation bar by changing the inline-block display into blocks. Also, the books in books exhibition on Home page take the full width of the screen on the Home page as the book container no longer use display: flex.
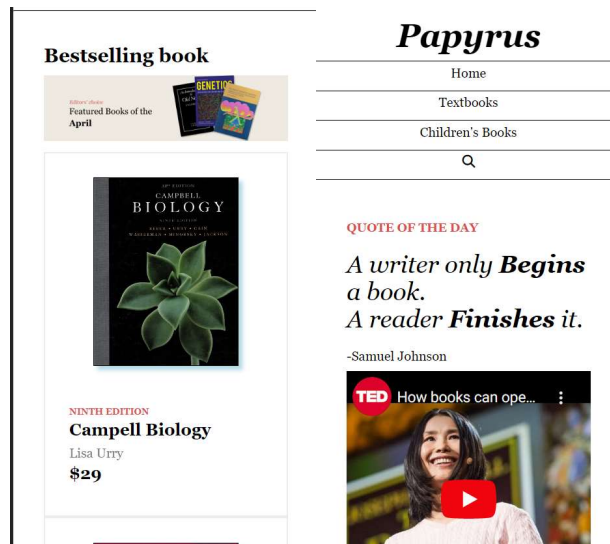

Fig 7. The Home page on mobile devices

In the Book detail pages, the price and buy buttons of the book is placed higher than the information of the book by using display: flex and flex-direction: column-reverse.

Fig 8. The Book detail page on mobile devices.

IV.   Conclusion

Having to build a website from scratch for the first time, I encountered several flaws and errors during this project. Firstly, constructing the website without a template led to some inconsistencies in the design. As I lacked the expertise of professional web designers, I did not have a color palette or established standards for design choices, resulting in minor contrasts. Additionally, the code I implemented was not as efficient as it could have been, with some parts being unnecessary or unoptimized, primarily due to my inexperience. Furthermore, ensuring the website's responsiveness proved challenging, as there were inconsistencies across different platforms.

In future projects, armed with the knowledge gained through this experience, I will be better equipped to organize the tasks required for website creation. This project has also served as a reminder for me to conduct more research and hone my skills in code optimization and responsive layout design.

V.   References

[1] "Bookworm - Bookstore & Bookshop eCommerce HTML Template," Download New Themes, [Online]. Available: https://www.downloadnewthemes.com/2020/05/bookworm-bookstore-bookshop-ecommerce.html. [Accessed 21 Apr 2023].

[2] "iPad App for Readers & Writers," dribble, [Online]. Available: https://dribbble.com/shots/2552544-iPad-App-for-Readers-Writers. [Accessed 21 Apr 2023].