



RMIT International University Vietnam

Assignment Cover Page (INDIVIDUAL)

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1. Introduction

In this project, I received a task to design and build a commercial online bookstore in 3 weeks with HTML, CSS, and no external libraries, templates, or frameworks such as Bootstrap and Tailwind. This website should include a home page, category pages, book detail pages, and a contact page and they should all be responsive. To develop this website, I have used all the knowledge about HTML and CSS that I learned in the first two weeks of this course including using HTML elements, attributes, CSS functions, and methods, especially Flexbox.

- Link to my website: <https://tom474.github.io/rmit-asm-1/>
- Source code on GitHub: <https://github.com/tom474/rmit-asm-1>

2. Project Description

My online bookstore has a total of 38 pages, divided into 4 types of web pages which are 1 home page, 4 category pages, 32 book detail pages, and 1 contact page. All those pages have a responsive interface and include a header navigation bar and footer navigation bar.

a) Header & Footer

The Header includes the logo, navigation bar, and hamburger icon:

- Logo: “TMC Bookstore” with “font-family: "Dancing Script", cursive.”
- Navigation bar: including Home, Business, Technology, Children, and Biography. Every navigation item has a hover effect that changes the background to a lighter color. On a desktop, the navigation bar displays horizontally and sticks on the screen by using the JavaScript scroll function. On mobile devices, it displays vertically and has “position: fixed” and “left: 100%” to make it hidden. When users click on the hamburger icon, its position changes to “left: 0”, which means it slides on the screen from the left. I use the JavaScript click function to adjust the position to be “left: 100%” again when users touch on any navigation item.
- Hamburger icon: using hamburger icon from Font Awesome 5. On the desktop, it “display: none”. On mobile devices, it “display: block” and when users click on it, the navigation bar appears, and the hamburger icon changes to the X icon. Users can click on the X icon to close the navigation bar and it changes to the hamburger icon again.

The Footer includes the logo, navigation bar, and Get in Touch section:

- Logo: “TMC Bookstore” with “font-family: "Dancing Script", cursive.”
- Navigation bar: including About Us, Privacy Policy, Terms, Copyright, and Contact Us. Every navigation item has a hover effect that changes the background to a lighter color. On a desktop, the navigation bar displays horizontally, but on mobile devices, it displays vertically. When users click on Contact Us, they will be navigated to Contact Page.

- Get in Touch: including Facebook, Instagram, and Gmail icons. Users can contact me directly by clicking on those icons.

b) Home Page

The home page includes Header, New Release, Category, Media, and Footer:

- New Release: including the book title, a brief description, the “Buy Now!” button, and the book image. I used Flexbox to align the items. The book title has a big font size and uses the “font-family: 'Roboto Serif', serif”. The book description has a smaller font size and uses “font-family: 'Poppins', sans-serif”. On desktop, it displays horizontally, but on mobile devices, it displays vertically with the book image on the top and the content on the bottom.
- Category: there are 4 categories: Business & Money, Computer & Technology, Children’s Books, and Biographies & Memoirs. Each category area has a category heading and a book list. When users click on the category heading, they are navigated to the specific category page. There are 4 book items in the book list, which are positioned by Flexbox. Each item has a hover effect “transform: translateY(-16px); box-shadow: 5px 5px #93bfcf”. When users click on the book item, they will be navigated to the specific book detail page, but because of the limit of time, there are only the book detail pages for Business and Technology books. On a desktop, the book list displays horizontally, but on mobile devices, it displays vertically.
- Media: including the heading and 2 videos. The video list was embedded from YouTube and positioned by Flexbox. On desktop, it displays horizontally, but on mobile devices, it displays vertically.

c) Category Page

There are 4 category pages: Business & Money, Computer & Technology, Children’s Book, and Biographies & Memoirs. Those pages have the same layout as the home page. The only difference is the New Release section on the home page has been changed to the Best Seller section on the category page. On one category page, there are 4 sub-categories and each of them displays 4 books. Because of the limit of time, I can only build the book detail page for Business & Money books and Computer & Technology books.

d) Book Detail Page

The book detail page includes Header, Breadcrumb, Book Display, Book Description, and Footer. **The perfect example is the detail page of the book “The Wisdom of the Bullfrog: Leadership Made Simple (But Not Easy)”**, which is the new release on the top of the home page. The book detail page displays horizontally on desktop and vertically on mobile devices with the book images on the top and book description on the bottom.

- Breadcrumb: including Home, Category, and the book name as anchor tags. Users can navigate to the home page if they click on Home and the same as category navigation.
- Book Display: including the image showcase and image selector. I set the data-id for each image and then I used the JavaScript slideImage function so that when users

click on the image selector, the image showcase will slide to the image that has the correct data-id.

- Book Description: including the book title, author, description, rating, price, quantity, and “Add to cart” button. The book title has a big font size and uses the “font-family: 'Roboto Serif', serif”. The others have a smaller font size and use “font-family: 'Poppins', sans-serif”.

e) Contact Page

The Contact Page includes Header, Page Heading, Contact Form, Contact Info, and Footer. This page is displayed horizontally on desktop and vertically on mobile devices with the Contact Form on the top and Contact Info on the bottom.

- Page Heading: a big heading in the center of the page.
- Contact Form: including Contact Purpose, Name, Email, Phone Number, Contact Preference, Weekly Newsletter Request, and the Message (or Notes). I used the “select” form and created 2 options for the Contact Purpose. I also use the input type text, email, tel, checkbox, radio, and a text area to make other sections. In every input element, I put the name, id, placeholder, and required attributes, and make the Weekly Newsletter Request check “Yes” automatically.
- Contact Info: including the Email Address, Phone Number, Facebook, and Location. For the icons, I used Gmail, Phone, Facebook, and Map icons from Font Awesome 5. I also embedded the RMIT University location from Google Maps as an example.

After this project, I gained lots of useful knowledge and experience such as how to design the website layout, how to use flexbox to create a responsive website, and how to solve the problem that I might have during the progress. I learned how to make a responsive navigation bar and image slider on YouTube, how to use Font Awesome 5 and CSS tricks on Stack Overflow, and to utilize all the knowledge provided from RMIT lecture slide on a real-world project.

3. Implementation Details

At the beginning of this project, I created a workspace with an index.html file as my homepage, a README file, a “pages” folder to store other pages, and an “assets” folder to store all of the CSS files, images, and favicons. After a few times struggling with my workspace, I finally know how to make it well-organized so that my work can run smoothly.

Before building this website, I had to create favicons, choose theme colors, and font families and know how to use icons from Font Awesome 5. I went to favicon.io to create a favicon for my website with a light blue rounded background and the letter “C” in the middle. Then, I searched for blue color palettes on Color Hunt and chose 4 main colors which are #6096B4, # 93BFCF, # BDCDD6, and # EEE9DA. After that, I got some popular fonts family such as Poppins, Roboto Serif, and Dancing Script from Google Fonts so that I could embed those into my HTML files then. For icons, I used Font Awesome 5 by

embedding the Font Awesome 5 CDN and getting the icon classes from its official website. All of those were quite easy because I had practiced several times in tutorial sessions, except Font Awesome 5 that I had to learn on Stack Overflow.

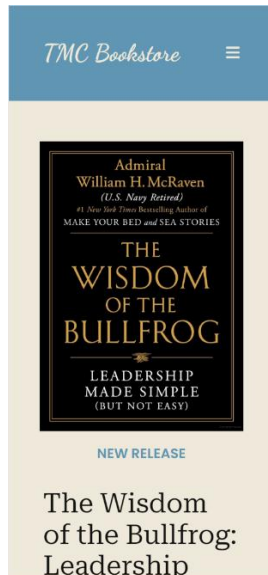
To prepare for the book resource for my website, I spent an hour visiting Amazon Book Store and I saw that they have the new release section on the home page and the best seller section on the category page so I decided that my website will have those sections too. I also chose 4 popular categories in Amazon Book Store to appear on my website which are Business & Money, Computer & Technology, Children's Books, and Biographies & Memoirs.

After finishing those tasks, I started coding in an index.html file to build a homepage. I decided to build a header and footer first because I would reuse those on every page of my website. The header includes a bookstore logo, a navigation bar, and a hamburger icon to make the navigation bar responsive. I used Flexbox to align items center and make a space between the logo and navigation bar. Moreover, I used a JavaScript function that I had learned from Coding Nepal YouTube Channel to make the header stick on the screen so that users can use the navigation bar more conveniently.

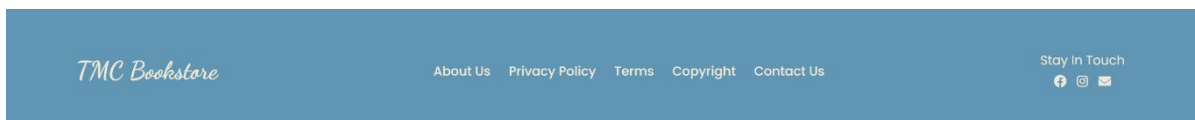
To make the logo, I used the font family "Dancing Script", a handwriting font family to make it basic, attractive, and unique.

The header navigation bar includes Home, Business, Technology, Children, and Biographies which are inside anchor tags with a hover effect so that when users click on one of those, they will be navigated to the specific position. This navigation bar is displayed horizontally on a desktop, and when this website is opened with mobile devices, it will be displayed full screen and vertically. I added "position: fixed" and "left: -100%" to make the navigation bar hidden, but its position will be adjusted to "left: 0" when users touch the hamburger icon so that it will slide on the screen from the left. I also applied JavaScript to make the position of the navigation bar to "left: -100%" again when they press one of the navigation items or the "X" icon.

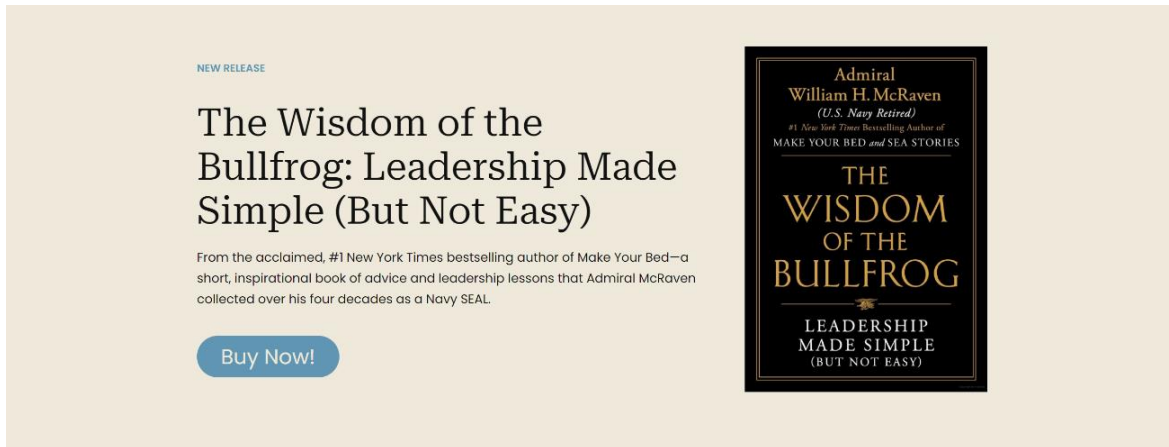
The hamburger icon display is hidden when users use desktops, but when they use devices with a screen width lower than 960px, it will display as a block. When users touch it, the navigation bar is shown, and the hamburger icon will be changed to the "X" icon. For those icons, I used Font Awesome 5 and got the classes for the hamburger icon and the "X" icon.



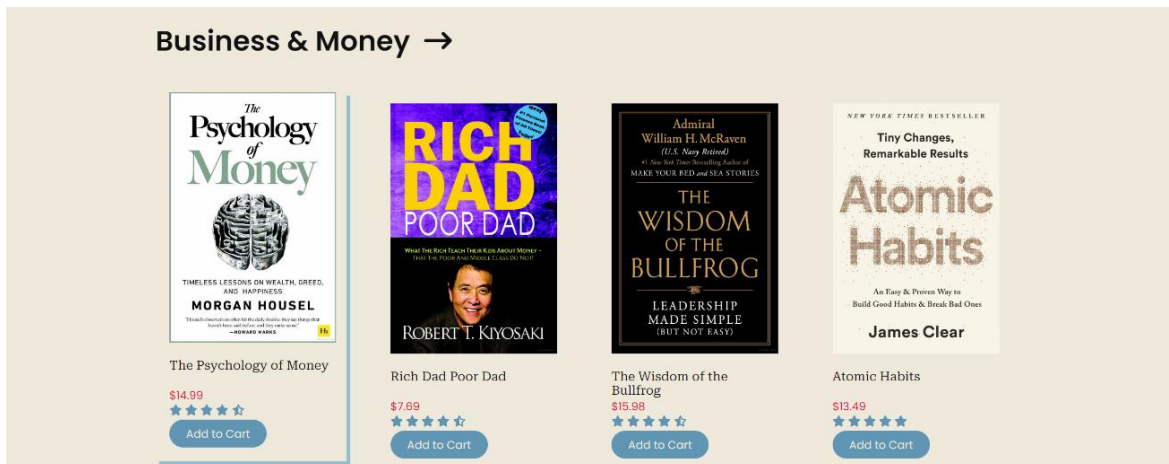
The footer is similar to the header. It contains 3 sections: Logo, Navigation Bar and Stay in Touch. I also use Flexbox to set the position of those sections to be centered and have a space between them. The navigation bar includes About Us, Privacy Policy, Terms, Copyright, and Contact Us that I also used Flexbox to align those navigation items and added a hover effect. In the Stay in Touch section, I used Facebook, Instagram, and Gmail icons from Font Awesome 5 with anchor tags so if users want to directly contact me, they are welcome to click on those icons. The footer is also displayed horizontally on desktops and vertically on mobile devices.



After completing the header and footer, I started designing the layout of my website. The homepage includes 6 sections which are Header, New Release, Business, Technology, Children, Biographies, Media, and Footer. I found the book “The Wisdom of the Bullfrog: Leadership Made Simple (But Not Easy)” was a new release book on Amazon so I took it. I created the New Release section with “display: flex” and made the book description on the left and the book image on the right. Users can click on the “Buy Now!” button or the book image to get more information about the book. I also added media queries and “flex-direction: column-reverse” so that on mobile devices, this section displays vertically.



In the next step, I built the Business & Money section and I had to make sure it was perfect because I would reuse its layout to build other sections. First, I added the category heading with an h2 tag inside the anchor tag so that when users click on it, they will be navigated to the Category Page. Then, I chose suitable books from Amazon and put those in the flexbox under the category heading. Those book items were put in anchor tags, justified with space-evenly, and have a hover effect is “transform: translateY(-16px); box-shadow: 5px 5px #93bfcf”. I spent 30 minutes building this section’s interface on a desktop and another 30 minutes making it responsive on mobile devices. After finishing the Business & Money section, my job was to copy and paste the source code and replace the book information to build other categories.



The final thing that I had to do on the home page was the media section. I wanted to inspire people to read books, and I found 2 videos on YouTube that suit my ideal, so I embedded those videos into my website and added CSS to modify their position, width, and height and make the media section display vertically on mobile devices.

You Should Watch These Videos

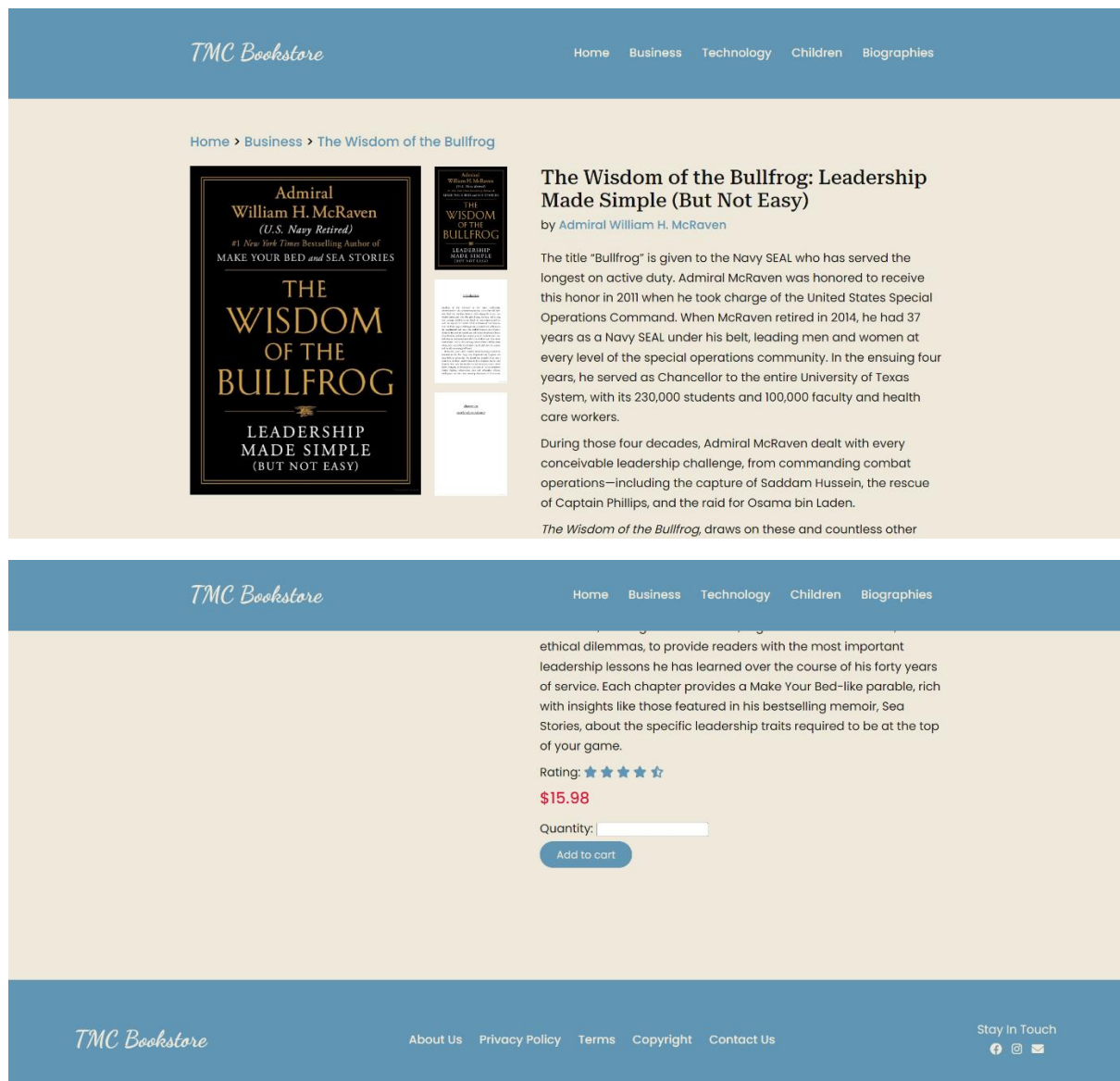


My design for category pages was the same as the home page so after I completed everything on the home page, I copied its source code and pasted it into 4 category pages. Each of my category pages has the best seller section and 4 sub-categories, and each sub-category displays 4 books. Those book items also have a hover effect and when the user clicks on it, it navigates to the specific book detail page. Then, I spent a whole day collecting books from Amazon and put those in my category pages.



After I finished 4 category pages, I started designing my first book detail page. The book I chose was the new-release book on the home page because users are likely to get information about the new book. The book detail page includes a breadcrumb, a book display area, book information, and an “Add to cart” button. I created a breadcrumb on the top of the page which has Home, Category, and Book’s name as 3 anchor tags. Then, I wanted to make a book display area where when the user clicks on the small images, the book showcase will change to that image, but I didn’t know how to do it. I searched on the internet and found a tutorial video on YouTube that could solve my problem. It taught me how to use the data-id

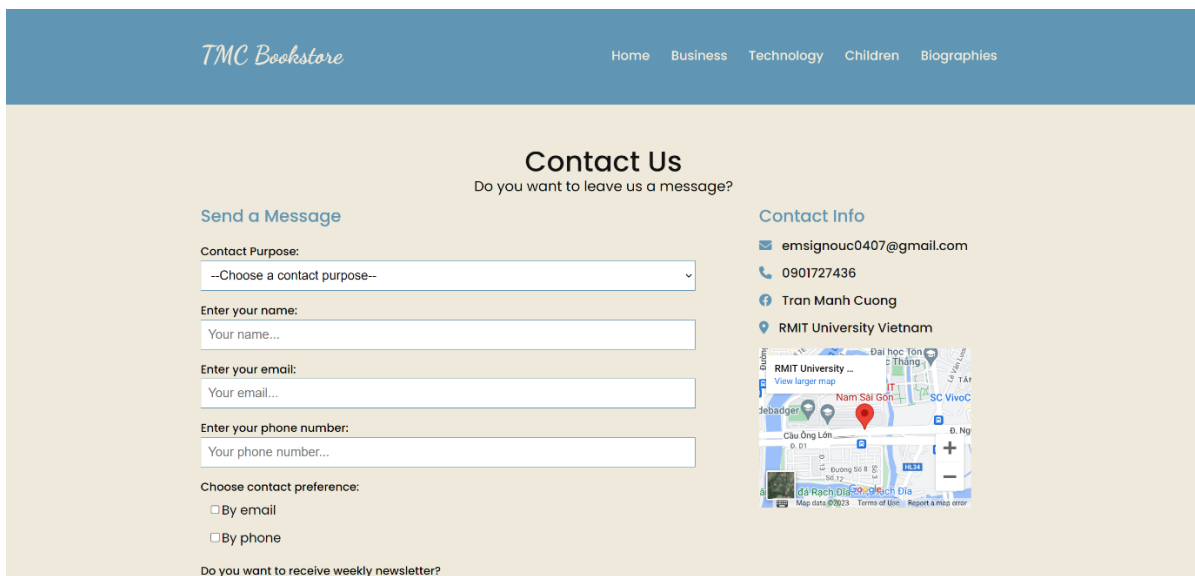
attribute on HTML tags and use the JavaScript slideImage function to make my book showcase change the image when I click on the image selector. The book display area took me lots of time, but it helps me to improve the user experience. I put the book display area on the left and book information on the right, chose good font sizes, font families, and colors for the book title and description, and add the quantity selector and “Add to cart” button for users to input how many items they want to buy. Finally, I made this page’s layout to be vertical on mobile devices and adjusted the image size and font size to fit the screen.



My first plan was to copy this page to 64 book detail pages, which means every book on my website has its detail page, but because of the limit of time, I could only finish 32 pages of Business and Technology books. I also found a problem that different books have

different sizes so that in some pages, the layout is not as accurate as the original page. I will try to fix this bug in the future.

The last page I had to build is Contact Page including 2 main areas: Contact Form and Contact Info. I put all the Contact Form requirements into this section including contact purpose, name, email, phone, contact preference, receiving a weekly newsletter, and extra notes using the correct input type, name, id, placeholder, and required attributes. On the bottom of the form, there are “Send” and “Reset” buttons. In case users want to contact me directly, I put some of my contact information and my location in the Contact Info area. Finally, I used “flex-direction: column” to make it display vertically on mobile devices.



After completing all those pages and linking them together, I check all of them again to make sure I completed all project requirements. Although the requirement of this website is supporting 2 types of devices mobile with width $\leq 960\text{px}$ and desktop with width $> 960\text{px}$, I made this website to be responsive with 9 different screen sizes: 1300px, 1240px, 1080px, 960px, 800px, 700px, 650px, 600px, and 500px to improve the user experience from a 24inch screen desktop user to iPhone SE user. I also put my effort into improving the user experience by creating 32 book detail pages, developing some extra features such as a New Release section on the home page, the Best Seller section on the category pages, Book Showcase on the book detail page, and Contact Info on the contact page.

4. Conclusion

In conclusion, I finished the “TMC Bookstore” in 3 weeks with 1 home page, 2 category pages, 32 book detail pages, and 1 contact page. This project was a wonderful opportunity for me to improve my programming skills and gain more knowledge and experience. After building my e-commerce website, I know how to design a website, obtain more programming knowledge and techniques, and most importantly, gain motivation to improve my skills and learn how to make a professional website. In the future, I will spend more time testing this website and trying my best to find and fix bugs. Moreover, I might apply some JavaScript libraries and create a backend system for this website to make it work as a real e-commerce website.

5. Reference

- Color Hunt: <https://colorhunt.co/palettes/blue>
- Font Awesome: <https://fontawesome.com/v5/search>
- Favicon: <https://favicon.io/>
- Google Fonts: <https://fonts.google.com/>
- How to Create Responsive Navigation Bar using HTML and CSS: <https://youtu.be/oLgtucwjVII>
- Product Detail Page Design with Image Slider: <https://youtu.be/1BHKhGuEItc>
- How to use Font Awesome Icons in HTML: <https://stackoverflow.com/questions/71146319/how-to-use-font-awesome-icons-in-html>
- Amazon Book Store: <https://www.amazon.com/b?node=283155>
- Google Book: <https://books.google.com/>