School of Science, Engineering and Technology

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Technical Report of

"Peje Bookstore" website

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TABLE OF CONTENTS

I. Introduction

The purpose of this report is to outline the process of designing and developing a static website for a bookstore, with a focus on the technical aspects of the project. The website aims to provide an online presence for the bookstore, allowing customers to access information about the business and its products, as well as to showcase the store's brand and identity.
The report will begin with an analysis of the requirements for the website, followed by a detailed description of the development process, including the technologies used, coding methodologies, the implementation of the website's features and functionality, and the testing and deployment procedures. The report will also cover any challenges encountered during the development process and the solutions that were implemented to overcome them.
The ultimate goal of this project is to create a user-friendly and efficient online bookstore that meets the needs of both the customers and the business., while also providing a positive user experience for visitors.

II. Project Description

The website is a static online bookstore that consists of several pages, including a homepage, category pages, a book details page, and a contact us page. It is designed to be user-friendly and intuitive, allowing visitors to easily navigate through the website and access the various pages and features that it offers. The website utilizes HTML, and CSS for its front-end development.
The homepage features a hero section with a banner image and three highlighted book recommendations. It also includes a navigation bar with links to the Home, Category, Blog, About Us, and Contact Us pages. The right navigation contains a search bar, a shopping cart icon that visitors can click to view their cart and checkout, and a sign-up button. The homepage also features bestsellers section and main category section where users can browse through different categories such as Fiction, Non-fiction, Children's Books, and more.
The Category page lists the sub-categories available within that category and displays the list of books that belong to those sub-categories.
The book details page contains a book cover image, title, author, and description. It also typically includes a "Buy Now" button and an "Add to Cart" button that allows visitors to add the book to their shopping cart and proceed to checkout. Additionally, there is a section where visitors can rate the book using a star rating system.
The Contact Us page includes a form that visitors can use to send a message to the website's administrators. The form includes inputs for personal information, a dropdown menu for selecting the purpose of the message, and a message text area. The form also includes submit and reset buttons. To enhance user engagement, the contact page also integrates social media icons that link to the website's Facebook, Instagram, Messenger, and Twitter pages.

Additionally, the website includes a footer navigation bar that links to the About Us, Privacy Policy, Terms, Copyright, and Contact Us pages. The footer also includes a rich media section that contains a "Read with Me" video from YouTube[1].

As a newbie coder, making a bookstore static website was a great opportunity for me to apply my newly acquired HTML and CSS skills. By working on this project, I would have gained several key learnings that would have helped me improve my skills. To make the website responsive, I utilized several responsive design techniques, including media queries and a flexible layout that adjusts to different screen sizes. The website was also designed with a mobile-first approach to ensure that it is accessible to users on smaller screens. I would have learned the importance of designing for mobile devices first and then scaling up to larger screen sizes. This would have helped me to prioritize the most important content and ensure that it is accessible to users on smaller screens. The website is also used Flexbox to create a flexible and responsive layout. This would have allowed me to easily adjust the position and size of different elements on my webpage.

CSS Flexbox is an essential technical aspect that was necessary to implement the website's layout. It allowed for a flexible and responsive layout to be created that adjusts to different screen sizes. Using Flexbox also allowed for elements to be easily positioned and adjusted on the webpage.
The use of the CSS position property was also important in implementing various features of the website. This property enabled the precise positioning of elements on the webpage and was particularly useful for positioning the navigation bar and the footer.
Media queries was also essential in making the website responsive. They allowed for the creation of different styles for different screen sizes, ensuring that the website looked good on all devices.
The implementation of the div semantic tag was necessary for organizing the website's content and making it more accessible. The use of div tags allowed for the grouping of related elements and provided a clear structure to the webpage's content.
To enhance the visual appeal of the website, I used icons from Fontawesome and fonts from Google Fonts. This allowed me to add visual interest to the website and give the website a unique look and feel.
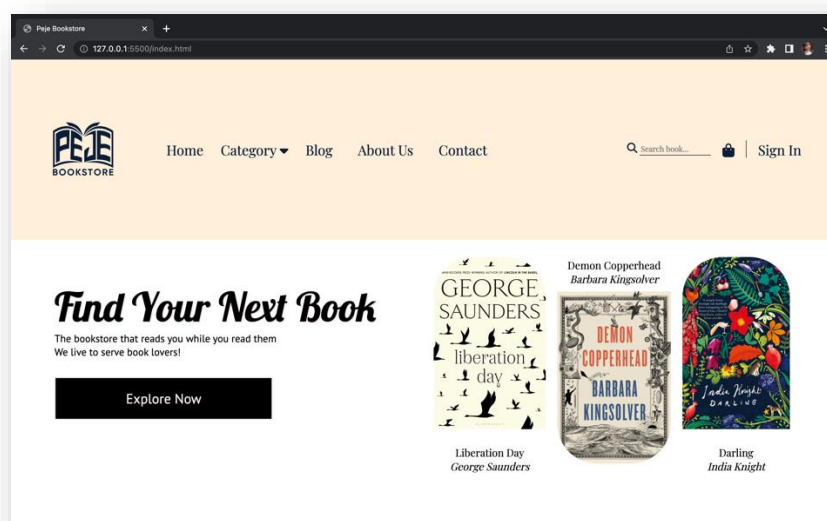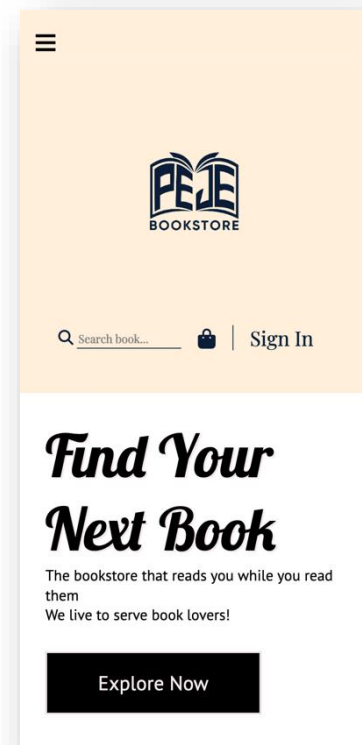
III. Implementation Details

For this project, I utilized various resources to enhance the overall design and user experience of the website. I incorporated the Google Fonts[2] "Lobster", "Open Sans", "PT Sans", "Playfair Display", and "Quicksand" to give the website a modern and stylish look. Additionally, I utilized icons from Font Awesome[3], such as magnifying-class, bag-shopping, book-reader, and star icons, to improve the user interface and make it easier for

users to navigate through the website. To maintain consistency in the color scheme, I referred to Color Hunt[4] and selected a palette that complemented the overall design of the website. By utilizing these resources, I were able to create a visually appealing and user-friendly website that meets the needs of our users. Furthermore, the content of the book details page for "Death of a Salesman" was taken from Goodreads[5].

Responsive Design

The website is designed to be responsive, which means that it would adjust its layout and content based on the size of the user's screen. The website uses a mobile-first approach to design, ensuring that it looks great on smaller screens before scaling up to larger ones. I use media queries to adjust the styles based on the screen size. I use the max-width property to target screens that are less than or equal to 960px. For example, I change the flex-direction property to column to stack the navigation bar's content vertically on smaller screens. First, I define the HTML structure for the layout. I use a container div to wrap all content, and then use flexbox to align the content in rows and columns.

Next, I define the CSS styles for most container div using flexbox. I set the display property to flex and then use the justify-content and align-items properties to position the content. I also utilized the flex-wrap property to ensure that the content would wrap to the next line when the screen size is reduced. This would ensure that the website is accessible and easy to use on desktops, laptops, tablets, and smartphones.

(https://www.youtube.com/watch?v=tYKUCj44Km8)

Navigation

The navigation bar of the website includes a logo that is linked to the homepage, along with links to the Home, Category, Blog, About Us, and Contact Us pages. The navigation bar also has a right-side section that contains a search bar, a shopping cart icon that visitors can click to view their cart and checkout, and a sign-up button.

This navigation bar is designed to be user-friendly and intuitive, allowing visitors to easily navigate through the website and access the various pages and features that it offers. The use of a linked logo ensures that visitors can quickly return to the homepage, while the inclusion of a search bar, shopping cart icon, and sign-up button in the right navigation adds functionality and convenience.

To create the navigation bar for the bookstore website, I used the <nav> element to define the section of the page that contains the navigation links. Within the <nav> element, I used a series of <a> elements to create the links. The main navigation includes <a> tags link to the Home, Category, Blog, About Us, and Contact Us pages. In addition, there is a <div id="right-navigation"> to push the search bar, shopping cart, and sign up to the right corner by using '*margin-left*: auto;'.

Book catalog

The book catalog on the Home page and Category page of the bookstore website provides an easy and user-friendly way for visitors to browse and discover books. The Home page features a selection of the top 4 bestsellers, which are prominently displayed to capture the attention of visitors. Each book in the catalog includes its title, author, cover image, and price. On the Category page, the books are organized into sub-categories to make it easier for visitors to find books in their areas of interest. Additionally, the banner on the Home page highlights three random books from the catalog to showcase some of the noteworthy titles available in the bookstore. The book catalog is an essential feature of the website that helps visitors explore the store's offerings and find books they are interested in.

Clicking on the "see all" button on a category leads to the category page, which displays all sub-categories and the books that belong to each sub-category.

By using <div class="container">, all the book catalogs have a similar format which is used CSS Flexbox to create a responsive and flexible layout that adjusts to different screen sizes. Each book cover is a clickable link to the book details page.

Contact form

The Contact Us page features a contact form that allows visitors to send messages directly to the bookstore's customer support team. The form includes a select option at the top to indicate the purpose of the form, with options including "I want to sell books" and "I want to buy books", as well as a text area for visitors to enter their messages. In addition, it also

includes input fields that prompt visitors to provide their personal information, such as their name and email address, and phone number. The form also includes a submit button, which sends the message, and a reset button, which allows visitors to clear the input fields and start over. The use of a contact form on the Contact Us page provides a convenient and professional way for visitors to reach out to the bookstore and ensures that their messages are delivered directly to the appropriate recipient.

To implement the contact form on the Contact page, I first used HTML to create a form element with the appropriate action and method attributes. Then, I used label elements to create descriptive text for each input field, including the name, email, phone, message, and select option for the purpose of the form. I also used various input types, such as text, email, tel, and textarea to allow users to enter their information.

To make the form visually appealing, each row would be wrapped in the class "row," and I divided the label and input with classes "col-25" and "col-75," respectively. This allows for a consistent and clean layout across different devices and screen sizes.

Finally, I added the "Submit" and "Reset" buttons to the form using the appropriate input type. These buttons are created using HTML and CSS, with hover effects to make them more visually appealing.

Book Details Page

The book details page provides visitors with detailed information about each book available for purchase. This page typically includes a high-quality image of the book cover, the book's title, author, publisher, publication date, and a brief description. Additional information such as the book's ISBN, number of pages, and available formats may also be included. To enhance the user experience, the book details page also includes a "reader also enjoy" section, which suggests additional books based on the visitor's interests. To make the purchase process as smooth as possible, the book details page also typically includes a "Buy Now" button and an "Add to Cart" button that allows visitors to add the book to their shopping cart and proceed to checkout.

Additionally, there is a section where visitors can rate the book using a star rating system. This section is designed to be user-friendly, with a row of stars that visitors can click on to indicate their rating. This feature adds value to the website by allowing visitors to easily rate and provide feedback on the books they have purchased or read, helping other visitors make informed purchasing decisions.

To make the information more organized and visually appealing, a <table> is used to display the key details about the book, such as the characters, format, publication date, ISBN, etc. This allows users to quickly find the information they are looking for without having to read through a lengthy description.

Footer

The footer of the website contains a navigation bar that includes various links, such as About Us, Privacy Policy, Terms, Copyright, and Contact Us, which opens the Contact page. This section ensures that visitors have easy access to important information about the website's policies, terms, and legalities.

Additionally, the footer section includes rich media in the form of a YouTube video titled "Read with Me." This video adds value to the website by providing visitors with engaging content related to books and reading. The video is embedded directly on the page, allowing visitors to watch it without being redirected to another website. The footer section provides valuable information and media that enhance the user experience and add depth to the website's content.

In the implementation, I have used the <footer> tag to define this section. Within this, I created three separate divs, two for the links and one for the rich media content. The links div contains a series of anchor tags with appropriate text and href attributes to link to the relevant pages on the website. I used Flexbox to arrange these links in columns with equal spacing between each link and each column.

The rich media div contains an embedded YouTube video player. To ensure that the video player is responsive and adjusts to different screen sizes, I set the width to 100%.

Extra bonus features

Search Functionality

The website includes a search bar that allows users to search for books by keyword, author, or title.

To implement the search bar on the website, I started by adding a label element with the Fontawesome search icon as the content. This label was associated with an input element using the "for" attribute, and the input element was given a placeholder text of "Search books..." to prompt users to enter their search query.

To style the search bar, I used CSS to adjust the size, position, and appearance of the label and input elements. I used Flexbox to position the label and input elements next to each other.

Shopping cart

The website includes a shopping cart feature that allows users to add books to their cart directly from the book catalog.

Social Media Integration

Below the contact form, there is a "Connect with Us" section. This section contains clickable icons that link to the bookstore's social media accounts on popular platforms such as Facebook, Instagram, Twitter, and Messenger. By including social media links on the contact page, the website encourages visitors to engage with the bookstore on social media, increasing its online presence and visibility. Additionally, social media integration provides an easy way for visitors to stay updated on new book releases, promotions, and other news from the bookstore or to direct messages to the bookstore.

Banner

The banner on the homepage of the website displays three random highlighted books, each with an eye-catching image, book title, and author name. The banner is implemented using CSS Flexbox and flex-wrap, which allows the books and the headlines to be arranged horizontally and vertically on smaller screens. Each book is contained within a div with a class of "sample" for styling purposes. The banner also includes buttons for "Explore Now," which link to the corresponding book category.

Bestsellers section

The Top 4 Bestseller section on the homepage is an important part of the website as it displays the most popular books to visitors. The implementation of this section involves using CSS position to position the books in the desired location on the page.
To begin, a container element is created for the section with a class name 'bestseller'. Inside the container, four book images are added along with their titles and authors. These elements are given their own classes for easy manipulation using CSS.
To position the book images, the CSS position property is used. The container element is set to position: relative, which allows its child elements to be positioned absolutely within it. The book images are positioned absolutely, and their left properties are set to specific values to place them in the desired location.
Next, to make the book images interactive, hover effects are added using CSS. When a visitor hovers over a book image, a box shadow effect is added to make it appear as if the image is popping out of the page.

Event section

The event section on the homepage is designed to showcase upcoming events related to books and reading. It is located below the top 4 bestseller section and above the book catalog section.
The section includes a heading that reads the title of upcoming events such as "Online Book Fairs 2023" and a subheading that provides a brief description of the events. Below the subheading, there is a "create account" button which serves as a great way to encourage users

to sign up for an account on the website and stay engaged with upcoming events and promotions.

Rating section

The Rating section on the book details page is an important aspect of the website that provides users with valuable feedback on the quality of the book. The Rating section contains a total of five stars, with each star representing a different level of satisfaction. Implementing this feature requires the use of HTML and CSS to create the star icons. To create the star icons, I used the Fontawesome library that provides star icons. Then, I used CSS to style a container element with the appropriate font size and color.
However, as mentioned in the project requirements, this feature is not perfect due to the lack of JavaScript. Therefore, it would only be able to display a set of static five stars. The website would not be able to track user input or update the rating in real time.

"Readers also enjoy" section

The "Readers also enjoy" section on the book details page is a great way to encourage users to explore more books that are similar to the current one they are viewing. To display the related books, I use a similar layout to the book catalog on the category page, with a container of book covers and titles. I also include the author and price information, as well as a "Add to Cart" button for each related book. To make it clear that these books are related to the current one, I add the heading "Readers also enjoy" above the section.

Problems

One problem that I have not fixed yet is related to the Category label dropdown menu on the navigation bar. Specifically, the dropdown menu which contains categories does not fit in the desired location. As a Mac user, I have looked at the coding result on both Safari (for the desktop version) and Chrome (the mobile version) to check the responsive design. Therefore, I have noticed that there is a difference between both browsers in terms of how they display the website. Although the dropdown menu appears exactly where I want it to on Safari, the same is not true for Chrome. Despite the fact that I tried so hard multiple times to fix the problems, the dropdown menu for the Category label still places askew (not in a straight line with the above Category label). I have not yet found a solution to fix this issue, but I will continue to explore and experiment with different approaches to resolve this problem.

After many attempts to fix the hamburger menu navigation bar for the mobile version of the website, the issue remains unresolved. I followed the instructions provided and utilized what I learned in class but to no avail. I implemented the 'display: none' property for the hamburger menu icon for the default version and utilized 'display: block' when using media queries. As a

result, the hamburger menu icon appears correctly on the mobile screen, but when I clicked, the dropdown navigation menu fails to appear. I have attempted to troubleshoot the issue multiple times, but have not been successful in resolving it.

IV. Conclusion

In conclusion, this project has successfully implemented the requirements of creating an online bookstore website. The website includes various features such as book catalog, search bar, shopping cart, contact form, book details page, and several sections on the homepage. However, there are some limitations and drawbacks to the website. Firstly, the website lacks Javascript implementation for some features such as the rating section. Secondly, there is an issue with the dropdown menu of the Category label on the navigation bar which needs to be addressed.

For future work, these limitations can be addressed by implementing Javascript and improving the responsive design of the website. Additionally, the website can be enhanced by implementing new features such as user accounts, wishlists, and recommendation systems. Overall, this project has provided a solid foundation for a functional and user-friendly online bookstore website.

V.   Reference

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