

Title: Develop a web application: Online Bookstore

Introduction

This abstract provides a comprehensive overview of the development process and technical approach involved in creating an online bookstore as a web application project. The project aims to streamline the book shopping experience for users, offering a user-friendly interface, comprehensive book selection, and efficient checkout process. The objective of this abstract is to provide a concise overview of my solution, highlighting concept and key features, technical approach, and lessons learned throughout the project development process.

Content and Concept

The online bookstore targets any bookstore that would like to set up a website for selling its books and reader communities of all genres. It is conceptualized to simplify the process of selling and purchasing books for both the users and the bookstore owners. Selling, browsing, selecting, and purchasing books can all be done online as an alternative to in-person shopping for books. Key features of the website include: a user-friendly and easy to use frontend design, mobile responsiveness, a comprehensive book database that keeps tabs of all available books, information about them and their prices and can be easily updated by the bookstore without any hassle, and an intuitive shopping cart functionality.

With a focus on user convenience and efficiency, the website classifies books according to their genre which allows users to seamlessly browse books by genre, search for specific titles or authors, read book descriptions that are available for each book to give the reader an idea of what the plot is about and aid purchasing decisions, easily add books to their cart as well as remove books from their cart and when they are done browsing, they can checkout and complete their purchase .

Technical Approach

In phase 1 of the project, I designed the technical architecture of the website to meet the project requirements and ensure optimal performance and I made the decisions about the technologies I would be using. The website follows a client-server architecture, with the frontend delivering static content and a single-page application (SPA) providing bookstore functionality. The SPA communicates with the backend through API calls to access and manipulate book data stored in the database. For front-end development I made the decision to use HTML, CSS, and Vue.js to create a responsive and user-friendly interface. Then for the backend database I decided to go with Airtable, which is extremely easy to use and would be providing flexibility and scalability for managing book data.

In phase 2 of the project, After I received feedback on my proposal, I started the implementation of the website. The implementation was fairly easy and I did not need to change much of what I had included in my proposal. The only feature that I decided to go without was the secure checkout process because I realized that implementing it would be more time consuming than I had originally thought and it was not a requirement for the project. After implementing the website, I tested it out using some dummy data and refined any deficiencies that were found.

Lessons Learned

Throughout the project, several valuable lessons were learned that influenced my decision-making and that will positively impact any future development. These include: the importance of prioritizing user experience in frontend design and ensuring mobile responsiveness, the importance of not adding any promises in my proposal without first making the appropriate amount of research to ensure that I can deliver what I propose. I gained a lot of new technical knowledge and experience in the field of web development, I learned how to build a complete website from scratch using HTML, CSS and Vue.js, how to make design decisions, how to test my website (both front-end and back-end) and how to resolve issues and look for solutions.

Conclusion

In conclusion, my online bookstore solution represents a significant advancement in the realm of book retailing, offering a user-friendly and efficient platform for both bookstores and readers. By catering to bookstore owners and reader communities of all genres, the website aims to foster a vibrant online literary community. By simplifying the book shopping process and enhancing accessibility, it aims to cater to a diverse audience of book enthusiasts and foster a thriving online literary community. The lessons learned from this project will definitely benefit me a lot in my future developments and design decisions.