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***Semester Project***

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# Abstract:

Creating an effective web page and its design is very crucial in today’s world. Web page development consists of many important factors and elements such as coding, design and implementation of web pages to deliver a captivating and engaging user experience.

It also highlights the role of front-end technologies such as HTML, CSS and JavaScript in crafting dynamic web pages This report explores the fundamental principles and best practices in web page development to enhance user experience and to design it in such a way that it can be easily modified and reconstructed according to the need.

The report aims to provide insights into creating dynamically and visually appealing web pages. It also emphasizes on both UI (user interface) as well as UX (user experience).

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# Introduction:

We were assigned to use front end technologies to develop responsive and dynamic web pages. By looking into the spectrum, we analyzed that there are a lot of business who have realized the importance of new technologies so they shifted online and developed their only unique and dynamic web pages but one business which has not used the potential of the new technology and there aren’t much web pages developed in this field so far is Book store. We have tried to develop and online book store which is not only appealing to avid book readers but it is also functional. In the below report we are going to explain which technologies are used for every aspect for the development of web page.

# Technologies used:

**Figma:** Figma is a popular design tool used in web development for several reasons such as collaborative design, prototyping, responsive design, design system and version control etc.

**Html:** HTML, or Hyper Text Markup Language, is a fundamental technology used in web page development for several reasons. It provides a structural framework for organizing content on a web page. It allows developers to define the basic structure of a document, including headings, paragraphs, lists, and other elements. Web pages created using HTML can be accessed and viewed by users using different browsers and devices.

**CSS:** CSS, or Cascading Style Sheets, is used in web page development for several key reasons.

It allows developers to control the visual presentation and styling of HTML elements on a web page. This includes setting properties like colors, fonts, spacing, borders, and more. By separating the presentation layer from the HTML structure, CSS makes it easier to manage and update the visual aspects of a website.

***JavaScript:*** JavaScript is a versatile and powerful programming language that is extensively used in web development. It not only enables client-side interactivity. Since our project is not a large scale so we just have used basic functions of JavaScript.

# User Stories:

In web development and software development in general, a user story is a concise, informal description of a feature or functionality from an end user's perspective. It is a way to capture and communicate the requirements of a system or application in a simple and understandable manner. A typical user story follows a specific template, often known as the "As a [user], I want [an action] so that [benefit/value]."

Since we have clearly understood what user story mean, now if we look into our spectrum which is developing an online book store below are some user stories:

* A reader or a visitor wants to browse books by genre so that he/she can easily find books that match their interest.
* A reader also wants that whenever he clicks on the allotted button for add to cart option the books get added in the cart and a pop up or alert message appears on the web page.
* A user will also want that all the genres are books appear in a specific manner and the text is clearly visible to him/her.
* The users also want that in the cart option all the books which he/she has added in the cart are visible and the individual as well as total price is also visible.
* The users want the functionality so that they can move in different pages.
* As a developer I want that I can add more books in their respective genres.

# Limitations and Constraints

Since it is a small project which can be enhanced and developed in future but right now with current situation following are some limitations or difficulties which can be faced by user as well as by developer:

**Limited interactivity:** We have used basic JavaScript for our web page development which may restrict our ability to implement complex features for interactivity, advanced features like real-time update can be challenging.

**Limited Scalability:** The complexity of the online book store grows, the limitations of basic JavaScript may become more apparent. Managing a large inventory, user accounts, and complex features may require more advanced tools and frameworks.

Real time updates: Since the inflation and many other factors keep effecting the price of books so it can affect features such as live chat or dynamic price updates, may be challenging to implement with basic JavaScript. More advanced libraries or frameworks might be necessary to achieve real-time functionality.

# Conclusion:

The web page which we have developed is not that much advanced and it still lacks some features but it is a stepping stone for us in the field of web-development; moreover, with our current knowledge we have tried to make the web page as responsive. The user can still click on checkout and it will lead him/her to the billing page where he/she can fill details and submit. There is also a About us page which tells the user about the journey of book store. To conclude, this web page development project has helped us to get equipped with technologies such as GitHub, html, CSS and JavaScript, we have applied our theoretical knowledge in practical application.