E-COMMERCE WEBSITE AND STUDENT PORTFOLIO

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Introduction

Title of the project: *Analysis of Front-End Development*

creating an E-Commerce Website and Student Portfolio also mainly the programming languages that we include are HTML, CSS and JavaScript.

Summer Internship – Progress Update

In this internship, the core objectives are developing an E-Commerce website and a Student Portfolio. This document presents progress updates from analysing and understanding the current trends in front-end development for both the E-Commerce website and the Student Portfolio.

Observation: Throughout the internship process, research has been crucial in helping us understand the fundamentals and complexity of front-end development. Through our research, we identified and resolved many issues encountered during the initial stages of building the E-Commerce website.

As a result, our extensive research allowed us to gain valuable knowledge and apply new, simplified coding methods. Additionally, focusing on user needs has been of utmost importance. This includes gaining insights into user behavior, preferences, and requirements for both the e-commerce platform and the student portfolio. The challenges we observed mainly revolved around technical and design issues during the initial stages.

Process: Initially after the Research and Analysis has influenced the design and development process. The tools and technologies used are HTML, CSS, JavaScript, React. Then planning and designing helps us to experience how actually UI/UX principles works.

In the **Development Phase** for outlining the development process, focusing on building the front end for both projects. The libraries used are Bootstrap, Tailwind CSS.

We have implemented responsive design, ensuring the sites work across various devices, we have detailed the testing process for both projects also the methods used to identify and fix bugs, optimize performance, and ensure cross-browser compatibility.

Outcomes: Features and components that successfully implemented in these two projects are product display, shopping cart, portfolio showcase. We have gained the technical skills which involves in developing the Front-End development more. During all the way of our internship it let us gain to communicate and increase the soft skills also let's say it includes coding proficiency, design thinking, and problem-solving.

Here comes, Challenges and Solutions

We have faced challenges during the development process which are technical hurdles and design constraints, Research helped us a lot to overcome from these technical obstacles, along with the mentor who helped in making this possible.

Problem Statement's

Problem-1

- The challenge is to build and design also develop a front-end for an E-Commerce website that not only meets but exceeds user expectations in terms of usability, accessibility, and performance.

Problem-2

- The primary challenge is to design and develop a Student Portfolio which displays the student's work also, so in a manner that it should be both engaging and professional as well as responsive.

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Methodology

1. Responsive Web Design:

- This methodology includes using resilient grids, layouts, images, and CSS media queries to enhance the website's design in according to the screen size of the user's device. By using this Responsive Web Design, the website will remain a user-friendly experience, despite of the device being used.

2. Component-Based Architecture:

- This methodology is mostly helpful when using front-end frameworks such as React.js, where components can be easily lead and updated without altering the whole codebase, which leads to rapid development and easier maintenance.

3. Progressive Enhancement:

- This methodology that prioritizes on building the e-commerce website to make sure that it works on all browsers and devices, even with the devices of limited capabilities, while hierarchically enhancing the experience for users with more advanced browsers also with better internet connections. It ensures the website to be accessible and functional for all despite of their technical constraints.

Results & Discussion –

Result

Result-1

Result-2

Result-3