PROJECT REPORT TEMPLATE

Title Page

Project Title: *E-Commerce Website Using HTML & CSS*
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GitHub page link: https://kyrz1.github.io/InsightForgeAnalytics/

1. Introduction

The project is about a website designed to make distributing various digital services efficient. The website aims to demonstrate a professional layout catered to clients. I aimed to learn how to creatively alter a basic website to a more clean, aesthetically pleasing design that does not prioritise only visuals or functionality but both

2. Project Objectives

The main goal of this project was to design and develop a professional, multi-page website for a fictional data-analytics brand called InsightForge Analytics. I wanted to demonstrate my ability to build a clean, modern, and responsive website using only front-end technologies. The project focused on creating a strong visual identity, presenting information clearly, and ensuring the site was easy to navigate.

The objectives included:

- Creating a fully functional website using HTML5 and CSS3.
- Designing a consistent layout and visual style across all pages.
- Ensuring the website was responsive on different screen sizes.
- Applying semantic HTML to improve structure and accessibility.
- Testing and validating the website to meet web standards.

3. Web Development Technologies Used

The website was built using standard front-end technologies because they are widely supported, easy to maintain, and ideal for demonstrating core web-development skills.

3.1 HTML5

HTML5 was used to structure the content of the website. I used semantic elements to make the code more readable and accessible. Each page followed a similar structure to maintain consistency.

Key HTML5 elements used:

- `<header>` for the logo and navigation bar.
- `<nav>` for the main menu linking all pages.
- `<main>` to hold the primary content of each page.
- `<section>` and `<article>` to group related information.
- `<footer>` for copyright and contact details.
- Internal links using `<a>` tags to connect the Home, Services, About, and Contact pages.

This structure helped create a clear layout and made the website easy to navigate.

3.2 CSS3

CSS3 controlled the design, layout, and responsiveness of the website. I used a combination of Flexbox, Grid, and media queries to ensure the site looked good on all devices.

How CSS was used:

- **Flexbox** for aligning navigation items and content sections.
- **Grid** for multi-column layouts on larger screens.
- **Media queries** to adjust layout and text sizes for mobile devices.
- A consistent **colour scheme and typography** to create a professional brand identity.
- **Hover effects** to make buttons and links more interactive.
- **Spacing, margins, and padding** to improve readability.

4. Website Structure and Navigation

The website is organised into four main pages: Home, Services, About, and Contact. Each page uses the same header and footer to maintain a consistent user experience.

Navigation features:

- A top navigation bar that appears on every page.
- Clear links that allow users to move between pages easily.
- A simple layout that helps users find information quickly.
- Logical grouping of content so each page focuses on a specific topic.

The structure makes the website intuitive and user-friendly.

5. Validation and Testing

To ensure the website met modern web standards, I carried out several validation and testing steps.

Validation:

- Used the **W3C HTML Validator** to check for HTML errors.
- Used the **W3C CSS Validator** to ensure the stylesheet followed proper syntax.
- Fixed any warnings or errors to improve code quality.

Testing:

- Checked the website on multiple browsers, including Chrome, Edge, and Firefox.
- Tested the site on mobile devices to ensure responsiveness.
- Used browser developer tools to simulate different screen sizes.
- Verified that all links worked correctly and that images loaded properly.

6. Challenges and Solutions

One of the main challenges I faced was making the layout fully responsive. Some sections did not scale properly on smaller screens, causing text and images to overlap.

To solve this:

- I added **media queries** to adjust the layout for mobile devices.
- I replaced fixed widths with flexible units like percentages and `rem`.
- I used **Flexbox** to allow content to wrap naturally instead of staying in rigid columns.
- I tested repeatedly on different screen sizes until the layout behaved correctly.

This improved the overall usability of the website.

7. Conclusion

By completing this project, I successfully created a clean, modern, and responsive website for InsightForge Analytics. I strengthened my skills in HTML5, CSS3, responsive design, and website testing. I also gained experience in structuring multi-page websites, designing consistent layouts, and applying semantic HTML. Overall, the project helped me develop a deeper understanding of front-end development and user-experience principles.

8. References

List any websites or resources used, such as documentation or tutorials.

1. W3schools
2. Chatgpt