

Case Study: AgrimCart - E-commerce Website

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Semester: 2nd BCA-3(B)

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Acknowledgments

I would like to express my heartfelt thanks to Palwinder Mam for her continuous guidance and support throughout the course of this project. Her feedback and encouragement helped me to stay focused and improve the quality of this project. I would also like to thank my peers at Chandigarh University for their collaborative spirit and valuable suggestions.

Abstract

This project, titled **AgrimCart**, is a web-based e-commerce platform designed to offer an intuitive shopping experience using only HTML and CSS. The objective of this project was to develop a functional and attractive e-commerce website that can display various categories of products, allow users to add items to their cart, and view their selection before checking out. The website, while limited to frontend technologies (HTML and CSS), demonstrates key web design principles and provides a rich user experience.

Introduction

E-commerce platforms have become an integral part of modern retail, providing users with a convenient way to shop online. The goal of this project was to create a basic e-commerce website, **AgrimCart**, as a web design project for the web development course at **Chandigarh University**. By developing this website using **HTML** for structure and **CSS** for styling, the project aimed to provide a hands-on learning experience in web design while incorporating essential features of an e-commerce platform.

Project Description

The **AgrimCart** website is designed to function as a small-scale ecommerce platform. It features a homepage with several product categories such as Mobiles, Electronics, Fashion, and Home Appliances. Each category includes products with details like the product name, price, and an option to add the item to the shopping cart. The cart itself can display the added items, allowing users to remove them if desired.

Key Features:

1. **Responsive Design:** The website is built to be responsive, ensuring a smooth experience across various devices such as desktops, tablets, and smartphones.
2. **Product Categories:** The website showcases various product categories, each with a selection of six products.
3. **Add to Cart Functionality:** Users can add items to their cart, but they can also remove them if they change their mind.
4. **Search Functionality:** A search bar is provided for users to easily find products.

Design and Implementation

The design and implementation phase involved creating HTML structures for each page of the website and styling them using CSS. Here's a breakdown of the steps:

1. HTML Structure

The HTML code consists of various components:

- **Header:** Contains the logo, search bar, and cart icon.
- **Navigation:** Provides links to different product categories.
- **Product Sections:** Displays products in grid format under each category.
- **Footer:** Contains project and author information.

2. CSS Styling

The styling was done to ensure that the site is visually appealing and userfriendly. Features such as hover effects, responsive grids, and interactive product cards were incorporated using CSS.

Code :

Here's a basic code from the website:

html CopyEdit

```
<div class="card">

  

  <h2>iPhone 14</h2>

  <p>₹70,000</p>

  <input type="checkbox" id="cart1">

  <label for="cart1">Add to Cart</label>

</div>
```

This is an example of the product card. Each card contains:

- An image of the product.
- A product title and price.
- A checkbox for adding the product to the cart.

The CSS to style the card:

css CopyEdit

```
.card { background: #fff; border-radius:
10px; overflow: hidden; box-shadow: 0
0 10px rgba(0, 0, 0, 0.1); transition: 0.3s;

position: relative;
}

.card:hover { transform:
translateY(-5px);
}

.card img {
width: 100%;
```

```
height: 180px;
object-fit: cover;
}
```

This CSS makes the card visually appealing by adding shadow effects and hover transitions.

Outcomes

The **AgrimCart** project successfully demonstrated how a simple ecommerce website could be built using only HTML and CSS. The key outcomes of this project were:

1. **Improved Web Design Skills:** The project enhanced my understanding of frontend design principles and helped me build a functional, responsive website.
2. **Hands-on Learning:** I gained hands-on experience with designing a real-world web application and implementing interactive elements using basic web technologies.
3. **Creative Problem Solving:** I learned how to design and organize content to create a user-friendly experience.

Challenges and Solutions

Throughout the project, there were several challenges:

1. **Limitation of Only HTML/CSS:** Since I couldn't use JavaScript or backend technologies, I had to find alternative ways to simulate dynamic functionalities like the cart and product interactions. This was done using checkboxes and labels for interactivity.
2. **Design Consistency:** Ensuring the design was consistent across different devices required thorough testing and adjustments in the CSS grid layout.

Despite these challenges, the project was completed successfully, and I learned a great deal about frontend web design.

Conclusion

In conclusion, the **AgrimCart** project was an excellent opportunity to demonstrate my skills in web design and e-commerce website development. Through this project, I not only gained practical knowledge of HTML and CSS but also learned how to make a simple, functional ecommerce website with interactive features. It was a challenging but rewarding experience, and I am confident that this project will serve as a strong foundation for my future endeavors in web development.

References

1. **HTML5 and CSS3** – For a comprehensive understanding of HTML and CSS.
2. **W3Schools** – Used for learning about HTML tags, attributes, and CSS styles.