



# Lab Report 1

HTML/CSS-based Product Catalog

**Course:** CSC381 - E-Commerce

**Submitted by:**

Parakram Kharel  
Roll No: 24

*Kathford International College of Engineering and Management*  
Affiliated to Tribhuvan University

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# 1. Objective

To create and build a simple product catalog web page using HTML and CSS to display e-commerce product listings, focusing on layout, design, and structure.

# 2. Tools and Technologies Used

Technology	Purpose
HTML5	Structure and layout of the web page
CSS3	Styling and visual design
VS Code	Code editor and development environment
Web Browser	Rendering and testing output

# 3. Theory / Background

A product catalog page on an e-commerce site showcases the available products, featuring their images, names, prices, and short descriptions. HTML provides the structure and elements of the page, while CSS improves its visual style, layout, and responsiveness.

# 4. Page Layout Design

## 4.1 Catalog Page Structure

- Header (website title or logo)
- Product grid with multiple product entries
- Footer with contact or legal information

## 4.2 Product Card Format

Each product listing contains:

- Product Image
- Product Title
- Brief Description of Product
- Price in NPR

## 5. Code Snippets

### 5.1 HTML Code: Product Cart

```
1 <div class="product-card" data-category="electronics">
2   <div class="product-image">
3     
5     <div class="product-badge">NEW</div>
6   </div>
7   <div class="product-info">
8     <h3>Premium Headphones</h3>
9     <p class="product-desc">High-quality wireless headphones
10      with noise cancellation</p>
11     <div class="price-tag">NPR 8,999</div>
12     <div class="product-actions">
13       <button class="add-cart-btn">Add to Cart</button>
14       <button class="details-btn">View Details</button>
15     </div>
16   </div>
17 </div>
```

### 5.2 HTML Code: Navbar

```
1 <div class="top-bar">
2   <div class="logo">
3     <div class="logo-icon"></div>
4     <span>SHOPLITE</span>
5   </div>
6   <div class="nav-items">
7     <a href="#">Home</a>
8     <a href="#">Products</a>
9     <a href="#">Categories</a>
10    <a href="#">About</a>
11    <a href="#">Contact</a>
12    <span class="cart-total">Cart Total: NPR <span id="
13      total-price">0</span></span>
14  </div>
15  <div class="search-section">
16    <input type="text" placeholder="Search products..."
17      id="searchInput">
18    <button onclick="searchProducts()"></button>
19  </div>
20 </div>
```

## 5.3 HTML Code: Sidebar

```
1 <div class="sidebar">
2   <div class="sidebar-header">
3     <h3>Categories</h3>
4   </div>
5   <ul class="category-list">
6     <li class="active" data-filter="all">All Products</li>
7     <li data-filter="electronics">Electronics</li>
8     <li data-filter="fashion">Fashion</li>
9     <li data-filter="accessories">Accessories</li>
10    <li data-filter="home">Home & Living</li>
11  </ul>
12
13  <div class="sidebar-section">
14    <h3>Popular Brands</h3>
15    <div class="brand-tags">
16      <span class="brand-tag">Apple</span>
17      <span class="brand-tag">Nike</span>
18      <span class="brand-tag">Samsung</span>
19      <span class="brand-tag">Adidas</span>
20      <span class="brand-tag">Sony</span>
21    </div>
22  </div>
23 </div>
```

## 5.4 CSS Styling: Product Card

```
1 .product-card {
2   background: white;
3   border-radius: 15px;
4   overflow: hidden;
5   box-shadow: 0 5px 20px rgba(0, 0, 0, 0.08);
6   transition: all 0.3s ease;
7   border: 1px solid rgba(255, 255, 255, 0.2);
8 }
9
10 .product-image {
11   position: relative;
12   height: 200px;
13   overflow: hidden;
14 }
15
16 .product-image img {
17   width: 100%;
18   height: 100%;
19   object-fit: cover;
20   transition: transform 0.3s ease;
21 }
```

## 5.5 CSS Styling: Navbar

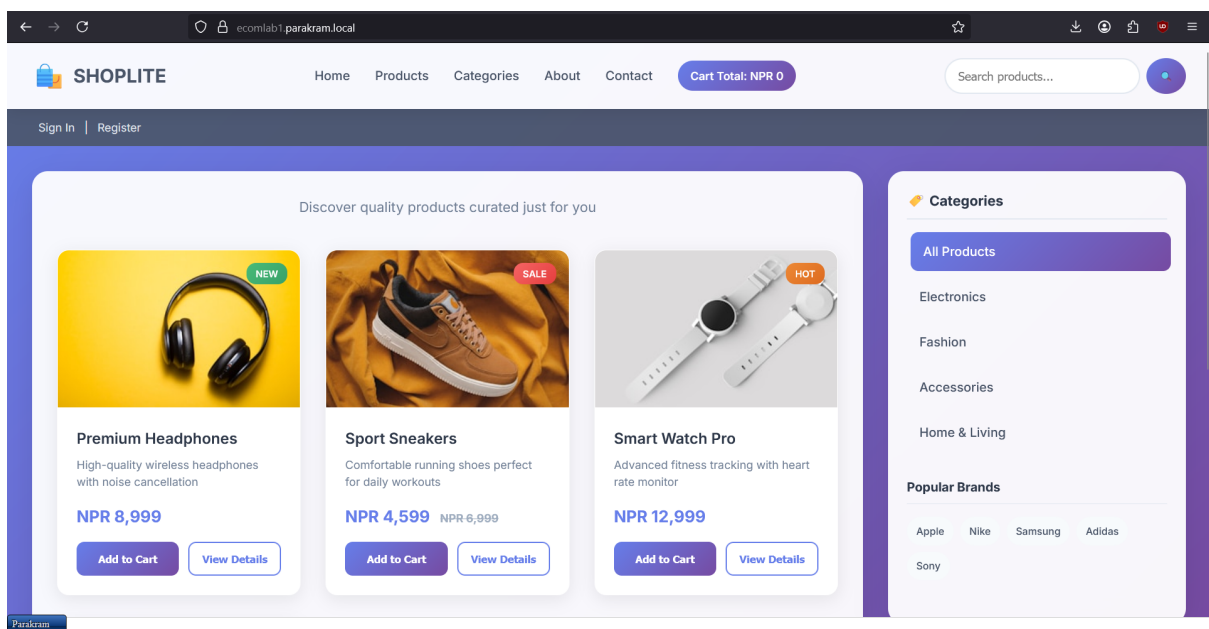
```
1 .top-bar {
2   background: rgba(255, 255, 255, 0.95);
3   backdrop-filter: blur(10px);
4   border-bottom: 1px solid rgba(255, 255, 255, 0.2);
5   padding: 1rem 2rem;
6   display: flex;
7   justify-content: space-between;
8   align-items: center;
9   box-shadow: 0 2px 20px rgba(0, 0, 0, 0.1);
10 }
11
12 .nav-items {
13   display: flex;
14   align-items: center;
15   gap: 2rem;
16 }
17
18 .nav-items a {
19   color: #4a5568;
20   text-decoration: none;
21   font-weight: 500;
22   transition: color 0.3s ease;
23 }
```

## 5.6 CSS Styling: Sidebar

```
1 .sidebar {
2   flex: 1;
3   background: rgba(255, 255, 255, 0.95);
4   backdrop-filter: blur(10px);
5   border-radius: 20px;
6   padding: 1.5rem;
7   height: fit-content;
8   box-shadow: 0 10px 40px rgba(0, 0, 0, 0.1);
9   position: sticky;
10  top: 2rem;
11 }
12 .category-list {
13   list-style: none;
14   margin-bottom: 2rem;
15 }
16
17 .category-list li {
18   padding: 0.75rem 1rem;
19   margin-bottom: 0.5rem;
20   border-radius: 10px;
21   cursor: pointer;
```

```
22     transition: all 0.3s ease;  
23     color: #4a5568;  
24     font-weight: 500;  
25 }  
26  
27 .brand-tags {  
28     display: flex;  
29     flex-wrap: wrap;  
30     gap: 0.5rem;  
31 }  
32  
33 .brand-tag {  
34     background: #f7fafc;  
35     color: #4a5568;  
36     padding: 0.5rem 0.75rem;  
37     border-radius: 20px;  
38     font-size: 0.8rem;  
39     font-weight: 500;  
40     cursor: pointer;  
41     transition: all 0.3s ease;  
42 }
```

## 6. Output / Screenshots



## 7. Result

The product catalog page was successfully built and displayed, showcasing multiple product items arranged in a grid layout with appropriate styling applied through HTML and CSS.

## 8. Conclusion

This lab covered the basics of building an e-commerce interface, using HTML for page layout and CSS for visual styling. It showed how static product listings can be structured and styled for a clean, user-friendly online presentation.

## 9. References

- MDN Web Docs
- CSS-Tricks
- HTML Living Standard (WHATWG)
- W3C - CSS Standards