

## 1. Introduction

### 1.1 Project Overview

ShopSmart is a sleek, modern online shopping web application built with TypeScript, CSS (Tailwind), and Vite. It features a responsive product landing page designed to engage users across desktop and mobile.

(<https://github.com/eswarsaikiran15/SHOPSMART>)

### 1.2 Purpose

To deliver a fast, visually appealing shopping interface that showcases products effectively, encourages user interaction, and provides a smooth experience across devices.

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## 2. Ideation Phase

### 2.1 Problem Statement

Users often abandon shopping sites due to poor navigation, cluttered interfaces, and lack of responsive design. ShopSmart aims to solve this by offering clarity, speed, and aesthetic appeal.

### 2.2 Empathy Map Canvas

- **Think & Feel:** "I want an intuitive, visually pleasing site."
- **See:** High-quality product sections.
- **Say & Do:** "This is easy to browse!"
- **Pain Points:** Slow load times, unresponsive UI.
- **Gains:** Engaging design, fluid navigation, quick load.

### 2.3 Brainstorming

- Emphasize clean UI and eye-catching hero sections
- Ensure graphics are optimized
- Use call-to-action buttons and smooth scrolling
- Make it fit all screen sizes effortlessly

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### 3. Requirement Analysis

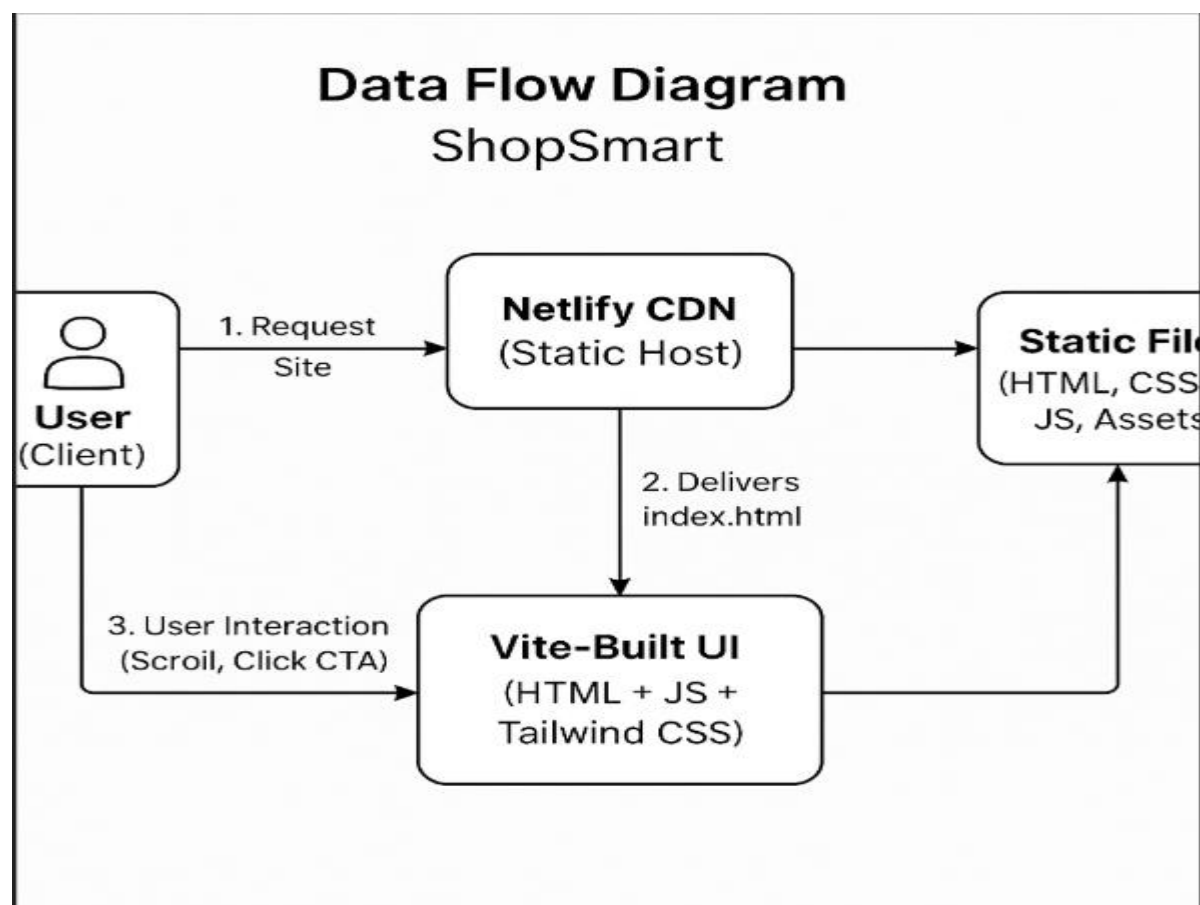
#### 3.1 Customer Journey Map

1. **Discover** ShopSmart via social or search
2. **Browse** product highlights
3. **Drink in visuals** and read CTAs
4. **Take action** — click to view or “Shop Now”
5. **Enjoy responsiveness** across devices

#### 3.2 Solution Requirements

- **Functional:** Landing page, CTA buttons, responsive nav
- **Non-functional:** Quick load (static assets), mobile-first design, cross-browser compatibility

#### 3.3 Data Flow Diagram



### 3.4 Technology Stack

- **Frontend:** TypeScript + Vite
  - **Styling:** Tailwind CSS, PostCSS
  - **Bundler:** Vite
  - **Deployment:** Netlify
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## 4. Project Design

### 4.1 Problem-Solution Fit

The static, responsive page solves the need for a fast, engaging shopping interface without complex backend overhead.

### 4.2 Proposed Solution

A single-page landing UI with featured product sections, smooth scrolling, and bold CTAs across mobile and desktop.

### 4.3 Solution Architecture

```
SHOPSMART/  
├─ public/           # Static assets (e.g. favicon, images)  
├─ src/              # Core source code  
│  ├─ components/    # Reusable UI components (e.g. Header, Footer)  
│  ├─ layouts/        # HTML templates (base layouts with EJS)  
│  ├─ content/        # Pages content (home.ejs, about.ejs, etc.)  
│  ├─ main.css        # Tailwind CSS entry file  
│  └─ index.html      # Entry HTML template  
├─ tailwind.config.ts # Tailwind configuration  
├─ postcss.config.cjs # PostCSS + Autoprefixer settings  
├─ vite.config.ts     # Vite project config  
├─ tsconfig.json      # TypeScript configuration  
└─ package.json       # Dependencies and scripts
```

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## 5. Project Planning & Scheduling

### 5.1 Project Planning

- **Week 1:** Define scope, wireframe UI

- **Week 2:** Implement frontend structure + Tailwind styling
  - **Week 3:** Integrate responsiveness, polish UI
  - **Week 4:** Test across devices, deploy to Netlify, finalize README
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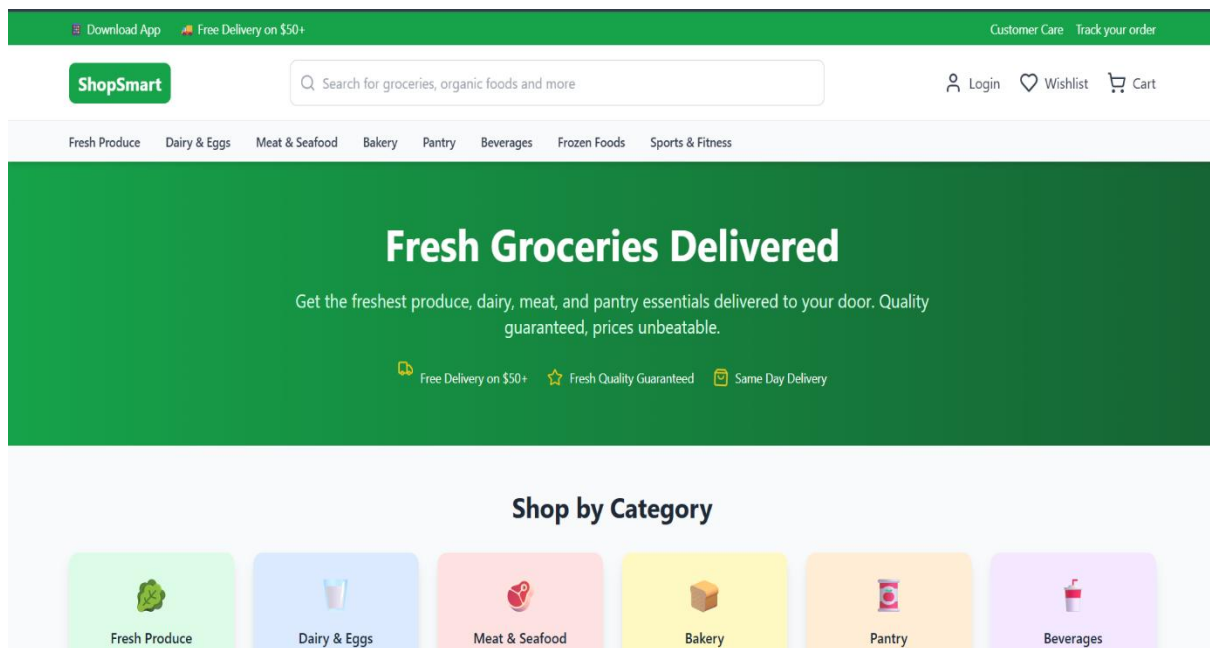
## 6. Functional and Performance Testing

### 6.1 Performance Testing

- Lighthouse audit to ensure high scores on accessibility, performance, best practices
  - Manual tests on mobile and desktop browsers
  - Asset optimization to reduce load times
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## 7. Results

### 7.1 Output Screenshots



Download App

Free Delivery on \$50+

Customer Care

Track your order

ShopSmart

Search for groceries, organic foods and more

Login

Wishlist

Cart

Fresh Produce

Dairy & Eggs

Meat & Seafood

Bakery

Pantry

Beverages

Frozen Foods


Sports & Fitness

All Groceries

Showing 20 products

Sort by Relevance

25% OFF



FreshFarm


Organic Bananas - 1kg

4.8 (1,234)

₹299 ₹399

Add to Cart

19% OFF



PureDairy


Fresh Milk - 1L

4.6 (1,234)

₹89 ₹110

Add to Cart

25% OFF



FreshBake


Whole Grain Bread

4.9 (1,234)

₹45 ₹60

Add to Cart

25% OFF



GoldenOil

Premium Olive Oil - 500ml

4.7 (1,234)

₹599 ₹799

Add to Cart

<https://shopsmart-15.netlify.app/category/fresh-produce>

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Fresh Produce

Dairy & Eggs

Meat & Seafood

Bakery


Pantry

Beverages

Frozen Foods

Sports & Fitness

18% OFF



CreamyDelight


Greek Yogurt - 500g

4.6 (1,234)

₹159 ₹199

Add to Cart

25% OFF



FrozenFresh


Frozen Mixed Vegetables - 1kg

4.7 (1,234)

₹249 ₹299

Add to Cart

17% OFF



PureHoney

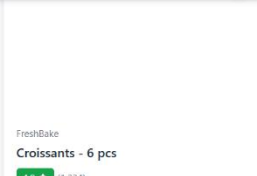
Organic Honey - 500g

4.4 (1,234)

₹399 ₹499

Add to Cart

20% OFF



FreshBake


Croissants - 6 pcs

4.9 (1,234)

₹199 ₹249

Add to Cart

18% OFF




Energy Drink - 500ml

4.5 (1,234)

₹159 ₹199

Add to Cart

25% OFF




Macarons - 1kg

4.6 (1,234)

₹249 ₹299

Add to Cart

20% OFF



Water - 330ml

4.7 (1,234)

₹199 ₹249

Add to Cart

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Customer Care

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ShopSmart

Search for groceries, organic foods and more

Login

Wishlist

Cart

Fresh Produce

Dairy & Eggs

Meat & Seafood

Bakery

Pantry

Beverages

Frozen Foods

Sports & Fitness

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Get the latest deals, exclusive offers, and product updates.

Enter your email

Subscribe

FlipCart

India's leading e-commerce platform offering millions of products at unbeatable prices with fast delivery.



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Electronics

Fashion

Home & Kitchen

Books

Sports

Beauty & Personal Care

Customer Service

Help Center

Returns & Refunds

Shipping Info

Track Your Order

Size Guide

Contact Us

Contact

1800-123-4567

support@flipcart.com

123 E-Commerce Street, Digital City, India 110001

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Download on App Store

## 8. Advantages & Disadvantages

### Advantages

- Clean, modern, responsive UI
- Fast load times via static assets
- Easy to spin up and scale (Netlify)
- Fully mobile-compatible

### Disadvantages

- No dynamic backend for product data or cart
- Lacks user accounts, checkout flow, real-time data
- Limited to presentation; not an actual e-commerce engine yet

## 9. Conclusion

ShopSmart is a well-crafted presentation-layer prototype for shopping sites—quick to deploy, visually stunning, and great for showcasing products. It nails responsiveness and performance, making it ideal for portfolios or static showcases.

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## 10. Future Scope

- Integrate backend (e.g., Node.js + MongoDB) for dynamic products
  - Add shopping cart, user authentication, and checkout
  - Enhance with animations (CS transitions, AOS)
  - SEO metadata, sitemap, analytics
  - Multi-language support and accessibility audits
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## 11. Appendix

- **Source Code:** Available on GitHub at <https://github.com/eswarsaikiran15/SHOPSMART>

- **Dataset Link:** Not applicable (static content)
  - **Project Demo:** Hosted live via Netlify — <https://shopsmart-15.netlify.app>
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