

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/KALISETTIKAVYA/ShopSmart-Your-Digital-Grocery-Store-Experience>)

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.

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

3. Requirement Analysis

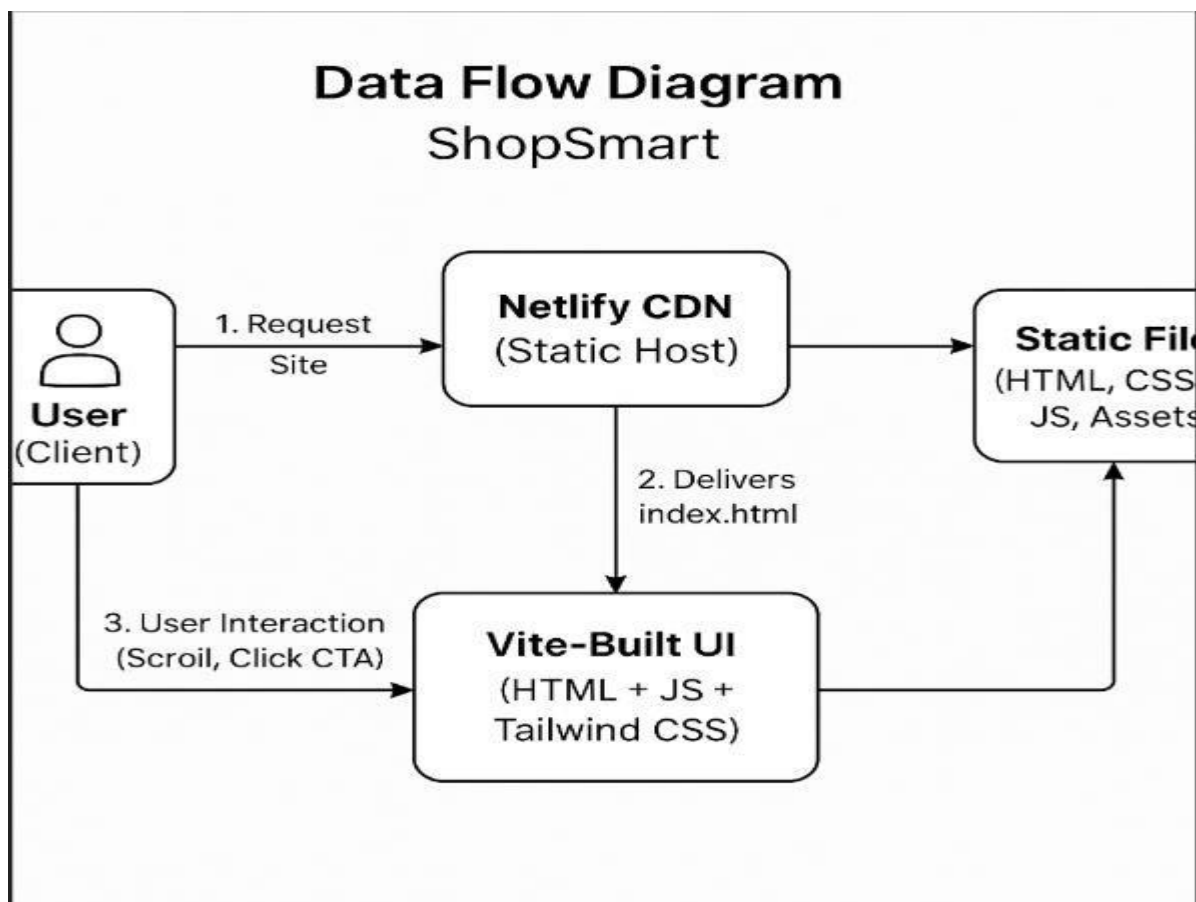
3.1 Customer Journey Map

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, crossbrowser compatibility

3.3 Data Flow Diagram



3.4 Technology Stack

- **Frontend:** TypeScript + Vite
- **Styling:** Tailwind CSS, PostCSS
- **Bundler:** Vite • **Deployment:** Netlify

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
```

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

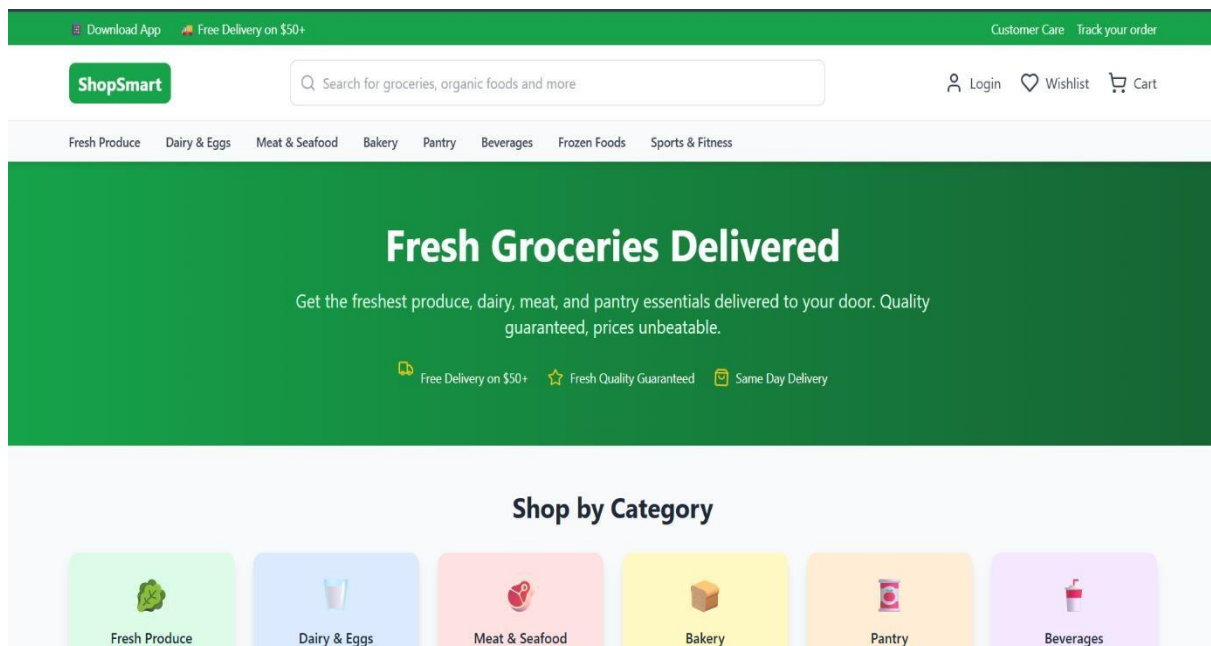
6. Functional and Performance Testing

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

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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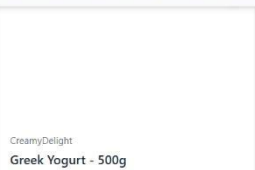
Pantry

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

17% OFF



PureHoney


Organic Honey - 500g

4.4 (1,234)

₹399 ₹499

Add to Cart

20% OFF



Water - 330ml

4.8 (1,234)

₹199 ₹249

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Pantry

Beverages

Frozen Foods

Sports & Fitness

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Fashion

Home & Kitchen

Books

Sports

Beauty & Personal Care

Customer Service

Help Center

Returns & Refunds

Shipping Info

Track Your Order

Size Guide

Contact Us

Contact

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support@flipcart.com

123 E-Commerce Street, Digital City, India 110001

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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.

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

11. Appendix

- **Source Code:** Available on GitHub at <https://github.com/KALISETTIKAVYA/ShopSmart-Your-Digital-Grocery-Store-Experience>
- **Dataset Link:** Not applicable (static content)
- **Project Demo:** Hosted live via Netlify — <https://shopsmart-15.netlify.app>
