

# Bugfree Store - Developer Documentation

## 1. Project Overview

The Bugfree Store is an e-commerce web application built using Next.js and TypeScript. It provides a minimal store interface where users can browse products, view product details, add them to a cart, and proceed to checkout. The goal is to implement basic shopping cart functionality with a clean and responsive UI.

## 2. Desired Features / Expected Behavior

- 1 Make the 'Go to Cart' button visible on the Home page.
- 2 Ensure all three product images appear correctly on the UI.
- 3 Implement functional 'Checkout' and 'Buy' buttons.
- 4 The Checkout page should display product image, description, total price, and include 'Checkout' and 'Back to Home' buttons.

## 3. Functionality & Workflow

The store allows users to interact with products displayed on the home page. Each product can be viewed and added to the cart. The cart persists the items temporarily during the session. Upon clicking 'Go to Cart', users are redirected to the checkout page, where they can view a summary of their items, including image, description, and total cost. From there, they can either proceed to checkout or return home.

## 4. Project Architecture

This project follows the Next.js App Router structure. The main application logic resides in the ``/app`` directory, which includes subfolders for each route such as ``/checkout``. The UI components are structured into reusable React components. Global styling is managed in ``globals.css``, and environment configurations are defined in TypeScript and configuration files. - ``app/layout.tsx`` – Defines the root layout and global structure. - ``app/page.tsx`` – Renders the Home page containing product listings. - ``app/checkout/page.tsx`` – Renders the checkout view displaying items and totals. - ``public/`` – Contains images and assets.

## 5. Tech Stack

- 1 Next.js (React Framework)
- 2 TypeScript for type-safe development
- 3 TailwindCSS or global CSS for styling
- 4 Node.js & npm for dependency management

## 6. Setup & Installation

1. Clone the repository from GitHub. 2. Navigate into the project directory: ``cd bugfree-store`` 3. Install dependencies: ``npm install`` 4. Start the development server: ``npm run dev`` 5. Open the browser and visit: ``http://localhost:3000``

## 7. Future Improvements

- 1 Integrate backend API for persistent cart and orders.
- 2 Add product filtering and search functionality.
- 3 Implement authentication for user login and order history.
- 4 Include responsive layout optimizations for mobile devices.