

Grocery Delivery System

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Introduction

The Grocery Delivery System is a web-based app designed to allow it's users to browse food items, view product details, see prices, increase item count, and simulate checkout. It was built with PHP and MySQL to demonstrate database driven web development and user interactions.

Customer Problem Statement

Many customers (myself included) are either too busy to go to the store or really just don't love making the trip to pick up groceries every time they need to buy something. Stores are usually crowded, out of items you may be interested in, or even closed by the time you are actually ready to go shopping. This system was designed with these struggles in mind allowing customers to stay home, skip crowds/lines, and save time!

System Requirements

Functional Requirements

FR-1: The system shall allow users to browse all available products.

FR-2: The system shall allow users to view detailed product information.

FR-3: The system shall allow users to add products to the shopping cart.

FR-4: The system shall allow users to remove products or clear the entire cart.

FR-5: The system shall calculate total cost at checkout.

FR-6: The system shall store product data in a MySQL database.

Non-Functional Requirements

NFR-1: The system shall load pages within 3 seconds locally.

NFR-2: The system shall run on all modern browsers.

NFR-3: The user interface shall be simple, clear, and responsive.

NFR-4: The system shall maintain session-based cart data.

NFR-5: The system shall run locally via XAMPP with minimal setup.

Functional Requirement Specifications

Product Display: Displays all available products with images and prices. Related page: index.php

Product Detail: Shows individual product details and "Add to Cart" button. Related page: product_detail.php

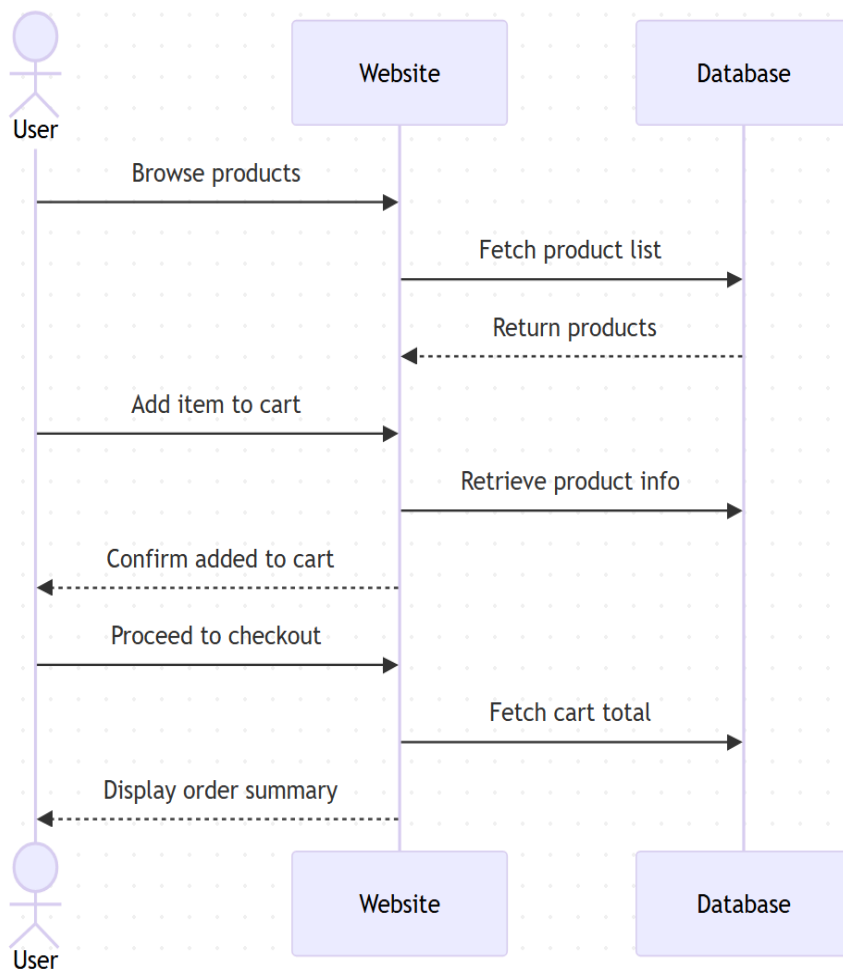
Shopping Cart: Lists all selected items with update/delete options. Related page: cart.php

Add to Cart: Handles adding items using sessions. Related page: add_to_cart.php

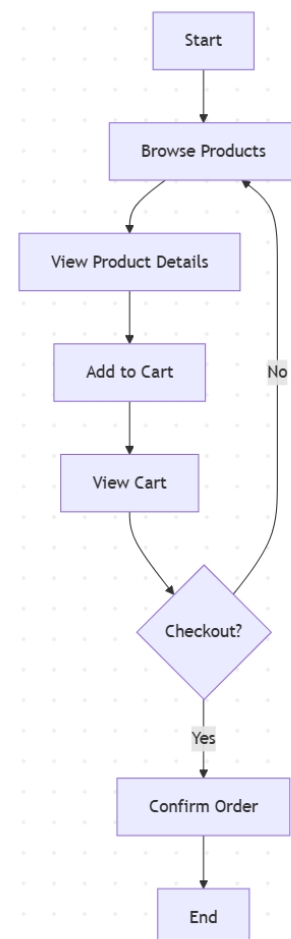
Clear Cart: Empties all session data for cart items. Related page: clear_cart.php

Checkout: Displays final cart summary and total. Related page: checkout.php

System Sequence Diagram



Activity Diagram



User Interface Specification

Page	Description	Main Elements
Home Page (index.php)	Displays list of grocery items	Product cards, Cart button
Product Detail (product_detail.php)	Shows individual product info	Product name, description, add to cart
Cart Page (cart.php)	Shows all added items	Item list, remove buttons, checkout
Checkout (checkout.php)	Displays total and order summary	Total price, checkout confirmation

Project Plan

Admin Dashboard: Allow admins to add, edit, or remove products and view customer orders.

Priority: High. Planned Timeline: Phase 2

Search & Filtering: Enable users to search products by keyword and filter by category or price.

Order Tracking: Allow customers to see estimated delivery times and order status.

Email Notifications: Send order confirmation emails to users upon checkout.

Discounts & Coupons: Implement a simple promotional code system for discounts.

References

PHP Documentation: <https://www.php.net/docs.php>

MySQL Reference Manual: <https://dev.mysql.com/doc/>

W3Schools PHP Tutorial: <https://www.w3schools.com/php/>

Draw.io Diagram Tool: <https://app.diagrams.net/>