

AAA Furnitures

Andreandhiki Riyanta Putra (23/517511/PA/22191) Andrian Danar Perdana (23/513040/PA/21917) M. Argya Vityasy (23/522547/PA/22475)

More Details





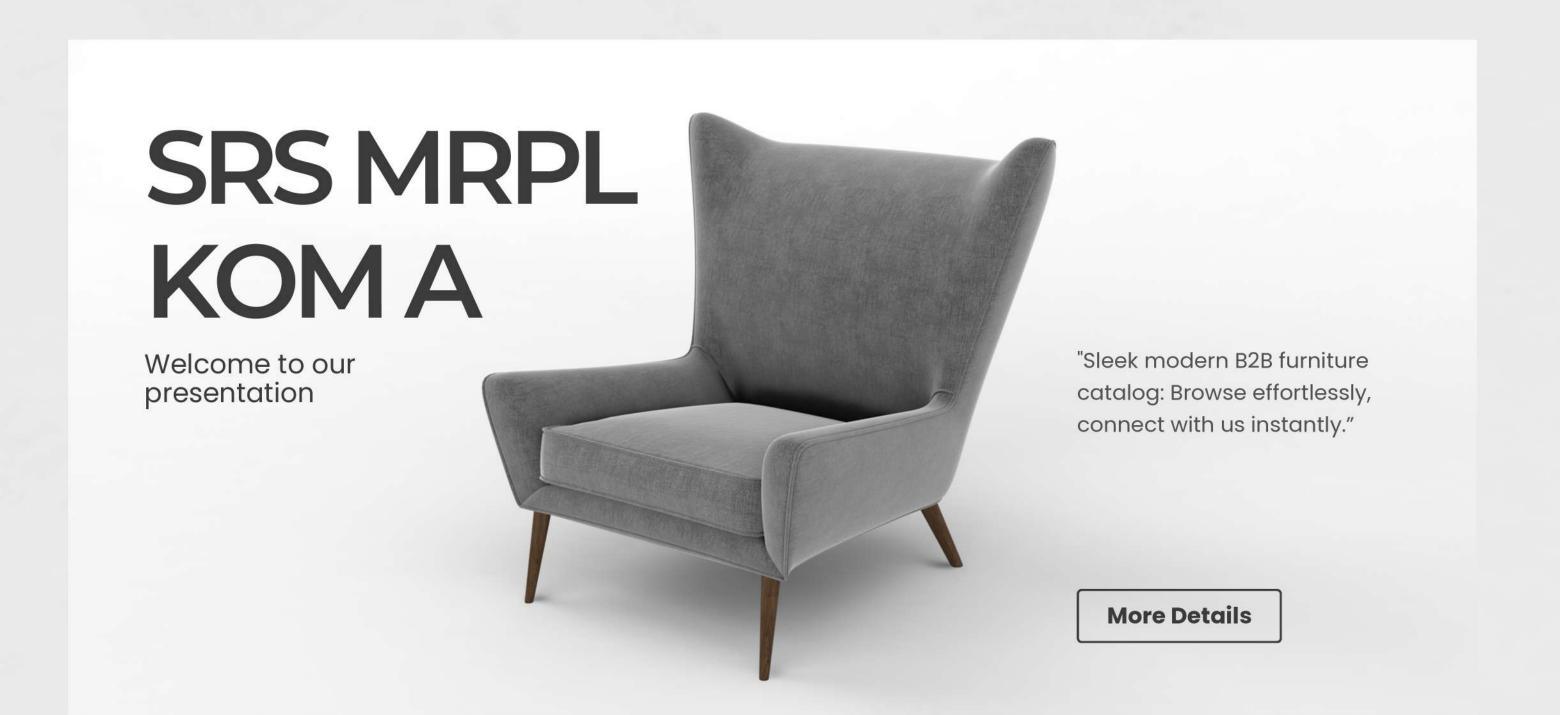




Table of Contents



Introduction

Product Description

External Interface

System Features

Non-functional Requirements



Introduction

We want to present the requirements for the AAA Furnitures Catalog
Website. This web-based application allows customers to browse furniture products and contact the company via WhatsApp for purchases.

More Details





Project Scope

AAA Furnitures Catalog Website is a responsive web application that enables:





Customer to:

- Browse furniture products with detailed information
- Filter and search through product listings
- Contact the company via WhatsApp for purchases

Admin to:

- Manage product information through a dedicated interface.
- Manage communication with customer





Product Description

Product Perspective
The product is a responsive web catalog with direct

WhatsApp integration for customer inquiries.

Key components include:

- Frontend interface for product browsing
- Backend product management system
- Product database
- WhatsApp Business API integration

Product Functions

Product Presentation

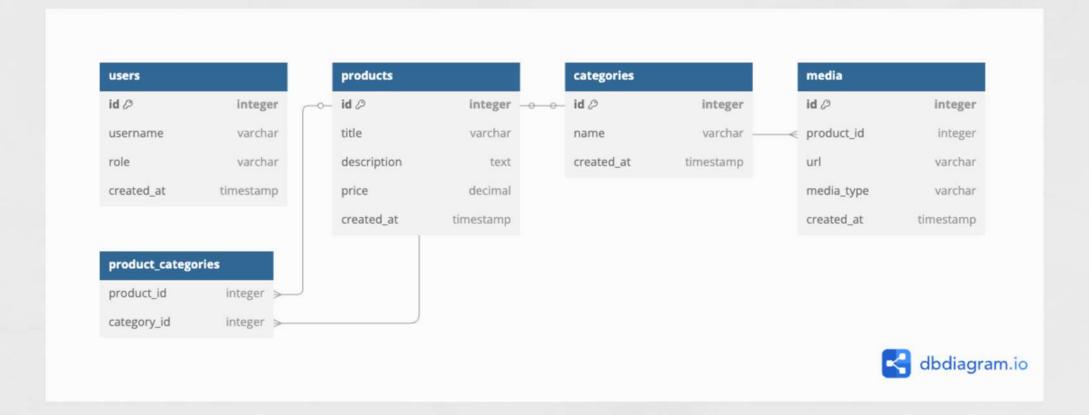
- Display product categories
- Show product details (images, specifications, pricing)
 item Search and filtering functionality

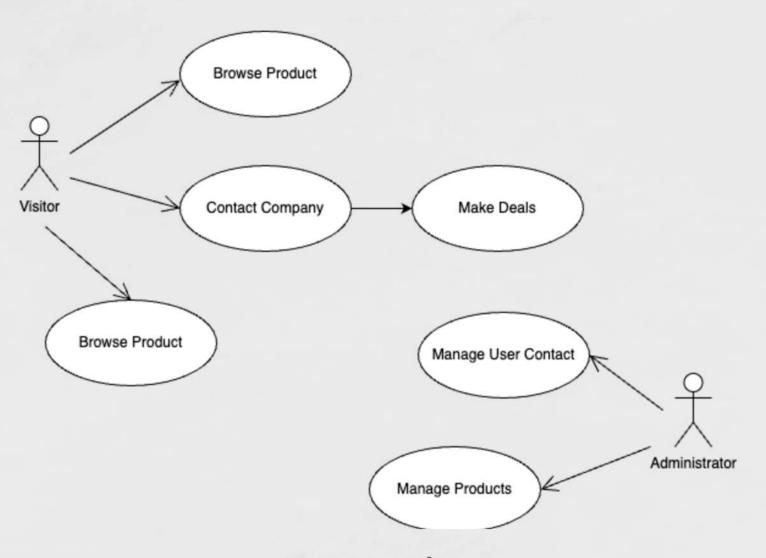
Admin Functions

- Manage products
- Manage communication with user



Diagrams





ERD

Use Case Diagram

Product Description



User classes & characteristics:

Website Visitors

- Frequency: Variable
(casual browsing to
serious buyers)

- Functions: Product
browsing, WhatsApp
contact

- Technical Expertise:
Basic web navigation
skills

Administrators

- Frequency: Daily
updates

- Functions: Full product
catalog management

- Security: Protected
admin interface

Operating env & constrains:

Server ENV
-Web server
-Content Management
System

Client ENV
-Web Browser
-Mobile responsive

Database
-Relational Database
(Supabase PostgresQL)
-Cloud Bucket (AWS S3)

Technical Constrains
-Responsive design
-WhatsApp API
Integration

Performance Constrains
-Can handle 1000
concurrent users
-Page and media load < 1
second

Security constrains
-Secure admin interface
-Database backup



Assumptions, dependencies, risks

Assumptions
-User has WhatsApp
installed
-Primary access via
mobile devices
-Product availability
matches database

Dependencies
-WhatsApp Business API
Availability
-Web hosting reliability
-CDN and Cloud Storage

Risks
-WhatsAPP API changes
-Admin page security
-Inventory discrepancy

Pages

Landing Page

- Hero Section
- About Section
- Collections Section
- Custom Design Section
- Timeline and Contact Section
- Visit the Store Section

Products Page

- Product Images Gallery
- Product Details Section

Warehouse Page

- Title / Hero Section
- Details Section
 - > Working Hours
 - > Interactive Maps

Catalogue Page

Download the Catalogue Section

Collections Page

- Hero Section
- Products Section

Features

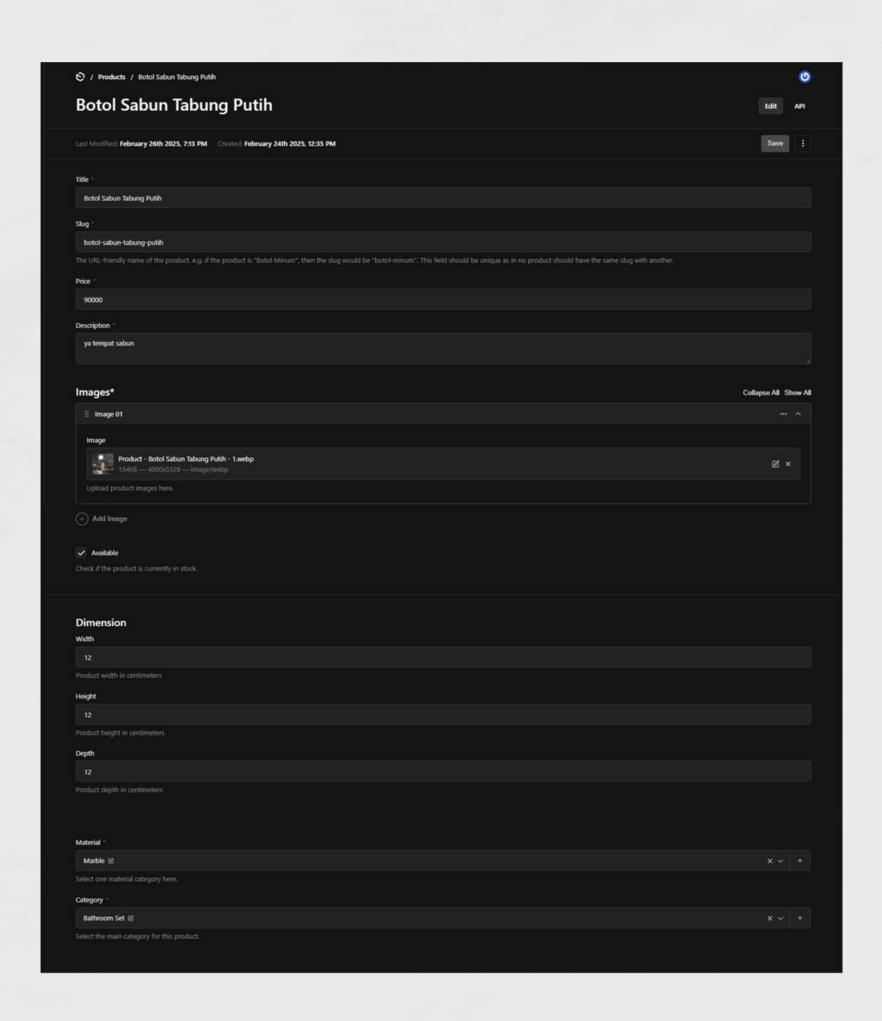
Product Management

(Content Management System)

Add / Delete / Edit the Products Details

- 1. Images
- 2. Price
- 3. Availability
 - 4. Description
 - 5. Dimension of the product
 - 6. Material
 - 7. Category





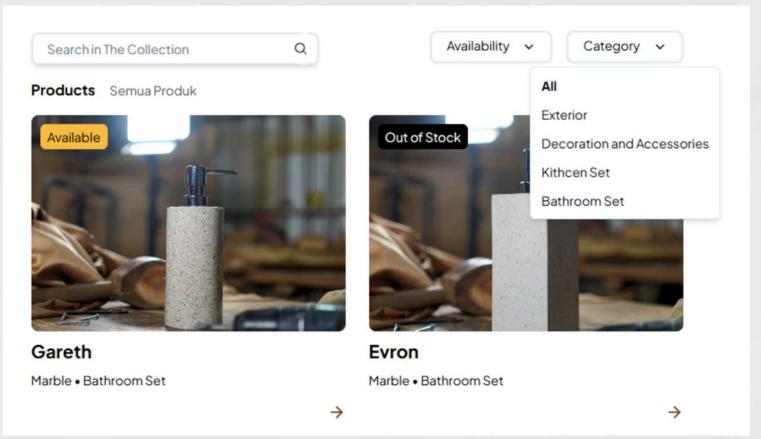
Pages & Features

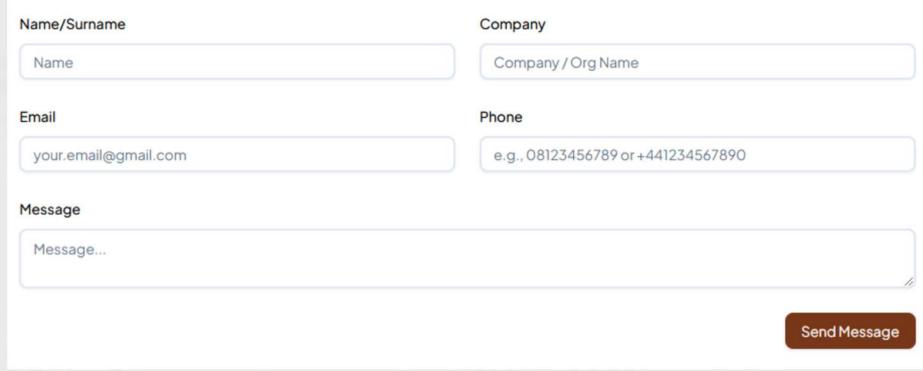
Product Catalogue Display

- Search
- Filter by Availibility (In Stock or not)
 and by Categories (Materials or
 Functionality / Usage)

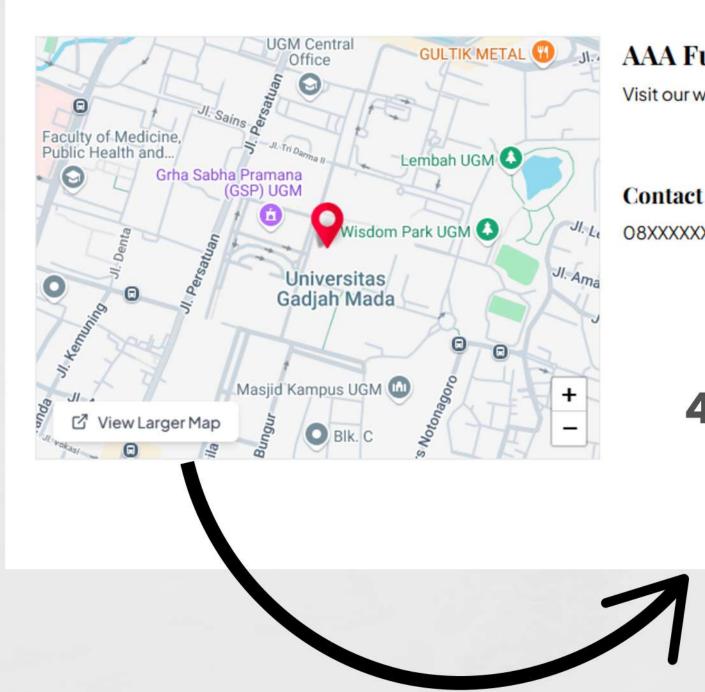
Contact Form Submission

- (Nodemailer, Google Sheet API)
- Send to Email and also Google
 Sheet Response





Pages & Features



AAA Furnitures

Visit our warehouse, and make your ideal sanctuary come through.

Contact Working Hours

08XXXXXXXXX Monday - Friday

07.00 - 22.00

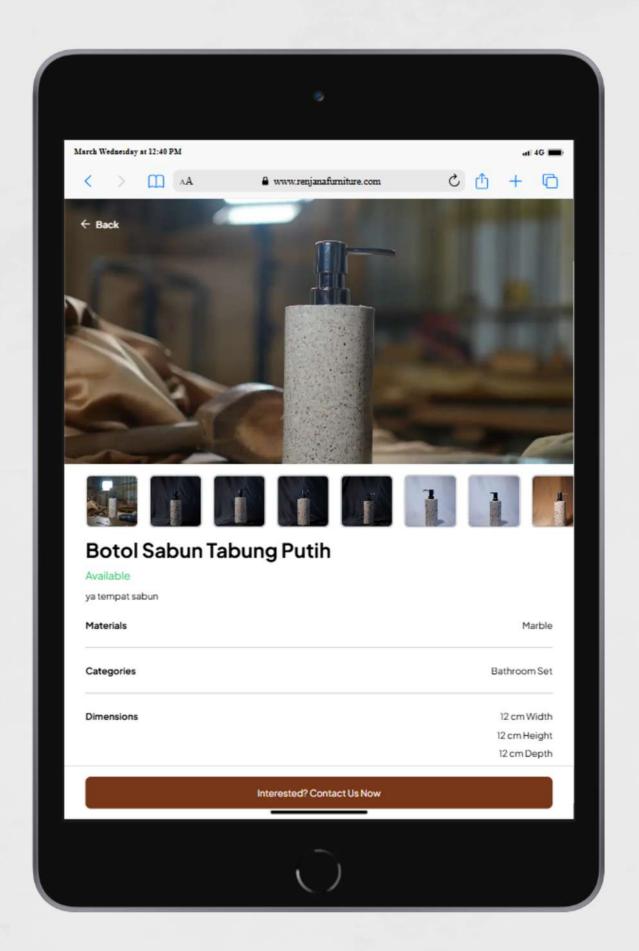
4. Warehouse Location Display

- (Google Maps API)
- Interactive Maps with button to
 Open in Maps Apps

Features

Product Page

- Product Image Gallery
- Scrollable
- Product Details
- Availability Product
- CTA Button to WhatsApp



Performance Requirements

Page Load Speed:

- Largest Contentful Paint (LCP)2.5seconds
- First Contentful Paint (FCP) of 1.8
 seconds under standard network conditions.

Image Optimization:

 Images must be served in WebP format and lazy-loaded.

• API Performance:

 Backend APIs should respond within 200ms

Search and Filtering:

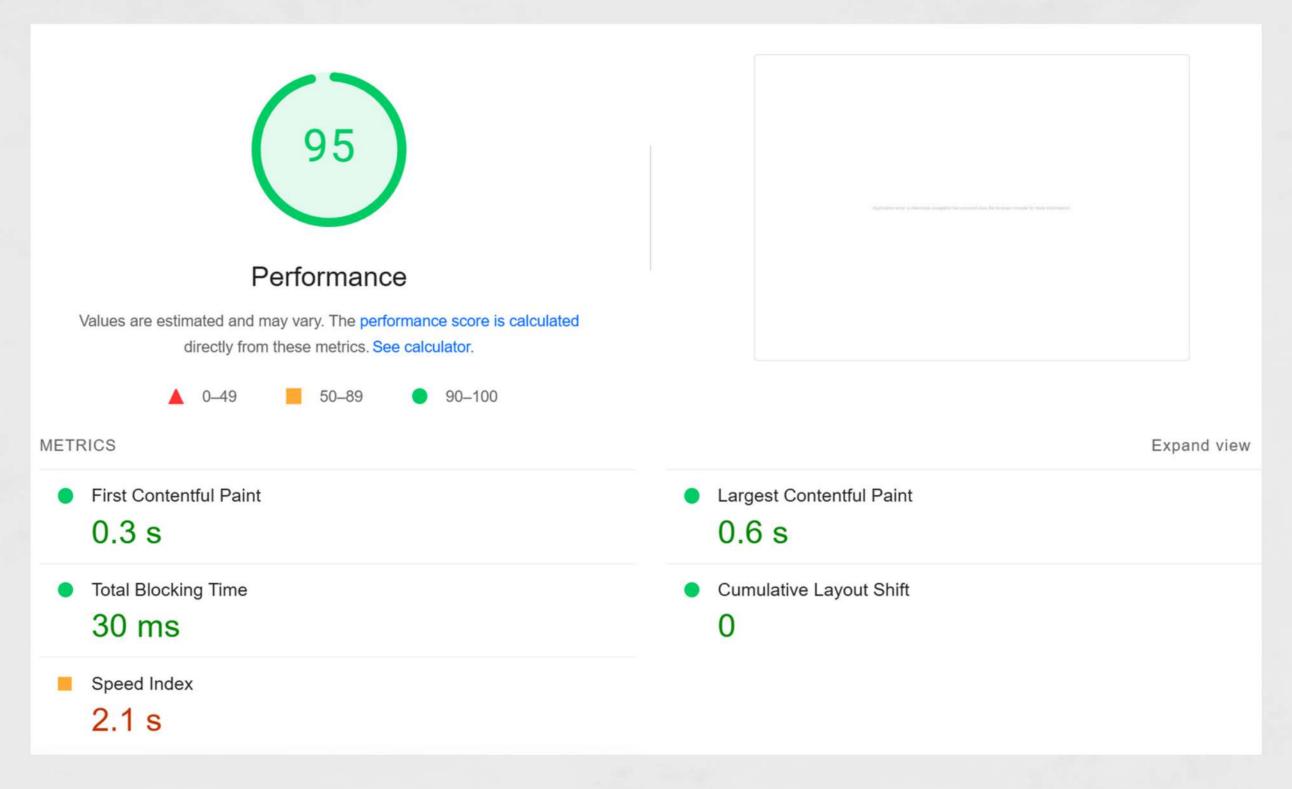
 The product search and filtering functions should return results within 2 seconds

Database Queries:

Queries should
 execute within 100ms



Performance Requirements

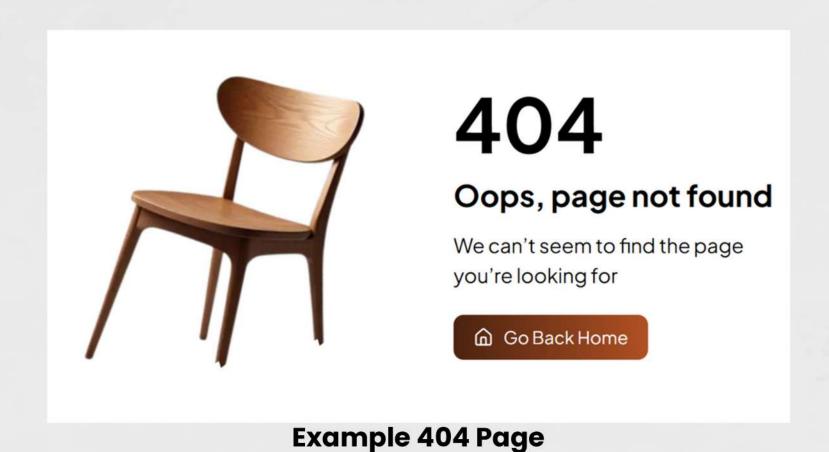


Tools to measure and ensure performance: pagespeed.web.dev

Safety Requirements

Safety measures are essential to protect user data and ensure proper handling of catalogue data.

- Dedicated 404 Page, for error handing
- Regular backups to prevent data loss
- Product description and pricing verification to ensure nobody gets mislead
- Admin panel accessible only to certain people with valid credentials
- HTTPS compliance to ensure end to end encryption between user and server
- Database security, ensured by Supabase policies that restricts unauthorized access
- Rate limiting, to mitigate abuse and prevent denial-of-service attacks



Software Quality Attributes

The AAA Furnitures web app should adhere to high-quality software standards to enhance usability, maintainability, and reliability

Usability

Reliability

Scalability

Maintainability

Compatibility

The interface should be intuitive, ensuring users can browse, search, and complete purchases with minimal effort

The system should achieve at least 99.5% uptime to ensure availability for customers

The application must be scalable to accommodate increased traffic and inventory expansion without performance degradation

The codebase should be modular and well-documented to allow for future enhancements and bug fixes

The web app should be compatible with major web browsers (Chrome, Firefox, Safari, Edge) and mobile devices

Business Rules

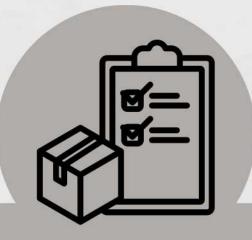
The AAA Furnitures web app must follow operational principles that dictate how different roles interact with the system.



User Roles

The system supports different roles

- Customers do not need to create an account and can browse products and place orders,
- Administrators can manage inventory, orders via the admin panel.



Inventory Management

Only authorized administrators can add, update, or remove products from the inventory.



Customer Support

Users should be able to submit inquiries or complaints through a dedicated support line, either through WhatsApp or email linked on the footer of the website