

# ShaiBha - Pre-loved Fashion E-commerce Platform

Project Outline & Technical Documentation

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# TABLE OF CONTENTS

1. PROJECT OVERVIEW	3
2. SYSTEM ARCHITECTURE	5
3. DATABASE SCHEMA	8
4. ENTITY-RELATIONSHIP DIAGRAMS	12
5. FLOW CHARTS	15
6. UI/UX OUTLINE	18
7. IMPLEMENTATION PLAN	22
8. TECHNICAL SPECIFICATIONS	25
9. CONCLUSION	28

# 1. PROJECT OVERVIEW

ShaiBha is a curated marketplace for pre-loved fashion items, specializing in high-quality, authentic designer and branded clothing. The platform aims to make sustainable fashion accessible while offering unique pieces at affordable prices.

The platform focuses on creating a premium shopping experience for customers looking for sustainable fashion options. Each item in the collection is carefully curated, authenticated, and described in detail to ensure customers have confidence in their purchases.

## 1.1 Project Objectives

- Create a user-friendly e-commerce platform for pre-loved fashion
- Implement secure user authentication and account management
- Develop a robust product catalog with detailed condition descriptions
- Build a secure shopping cart and checkout system with COD payment option
- Create an admin panel for inventory, order, and customer management
- Implement responsive design for all device types
- Promote sustainable fashion through educational content
- Build a community of conscious consumers

## 1.2 Target Audience

- Fashion-conscious consumers interested in sustainable shopping
- Budget-conscious shoppers looking for quality designer items
- Environmentally conscious consumers
- Fashion enthusiasts seeking unique pieces
- Millennials and Gen Z consumers with sustainability values
- Luxury fashion enthusiasts looking for affordable options

## 1.3 Key Features

- User registration and profile management
- Product browsing with advanced filtering and search
- Detailed product pages with condition ratings and descriptions
- Shopping cart and checkout functionality
- Order tracking and history
- Admin dashboard for inventory and order management
- Responsive design for mobile and desktop users
- Detailed product condition assessment system
- Secure Cash on Delivery payment option
- Comprehensive admin reporting tools

## 1.4 Business Model

- Curated marketplace for pre-loved fashion
- Revenue from sales of pre-owned items
- Potential for consignment model in future phases

- Focus on quality over quantity
- Building brand reputation through authentication and quality assurance
- Sustainable fashion education and community building

## **2. SYSTEM ARCHITECTURE**

The ShaiBha platform follows a traditional web application architecture with the following components:

### ***2.1 Frontend***

- HTML5, CSS3, JavaScript
- Responsive design using custom CSS
- Client-side validation and interactivity
- Modern UI with glass morphism effects
- Optimized for mobile and desktop devices

### ***2.2 Backend***

- PHP for server-side processing
- MySQL database for data storage
- RESTful API endpoints for AJAX interactions
- MVC-inspired architecture for code organization
- Secure authentication and authorization

### ***2.3 Server Environment***

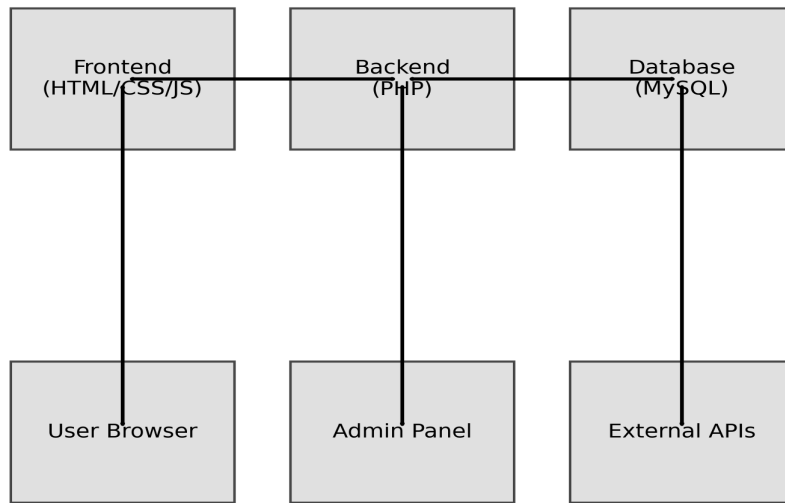
- Apache web server
- PHP 7.4+
- MySQL 5.7+
- SSL encryption for secure data transmission
- Regular backups and security updates

### ***2.4 External Integrations***

- Payment gateway (future implementation)
- Email notification service
- Image storage and optimization
- Analytics tracking

### ***2.5 System Architecture Diagram***

## System Architecture Diagram



### 3. DATABASE SCHEMA

The database schema consists of the following main tables:

#### 3.1 customers Table

Description: Stores customer account information

Fields:

Field Name	Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
first_name	VARCHAR(100)	NOT NULL
last_name	VARCHAR(100)	NOT NULL
email	VARCHAR(255)	UNIQUE, NOT NULL
phone	VARCHAR(20)	
password	VARCHAR(255)	NOT NULL
date_of_birth	DATE	
gender	ENUM('male', 'female', 'other')	
status	ENUM('active', 'inactive')	DEFAULT 'active'
email_verified	BOOLEAN	DEFAULT FALSE
last_login	TIMESTAMP	NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

#### 3.2 customer\_addresses Table

Description: Stores customer shipping and billing addresses

Fields:

Field Name	Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
customer_id	INT	NOT NULL, FOREIGN KEY
type	ENUM('billing', 'shipping')	DEFAULT 'shipping'
first_name	VARCHAR(100)	NOT NULL
last_name	VARCHAR(100)	NOT NULL
address_line_1	VARCHAR(255)	NOT NULL

address_line_2	VARCHAR(255)	
city	VARCHAR(100)	NOT NULL
state	VARCHAR(100)	NOT NULL
postal_code	VARCHAR(20)	NOT NULL
country	VARCHAR(100)	DEFAULT 'India'
is_default	BOOLEAN	DEFAULT FALSE

### 3.3 categories Table

Description: Stores product categories

Fields:

Field Name	Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
name	VARCHAR(100)	NOT NULL
slug	VARCHAR(100)	UNIQUE, NOT NULL
description	TEXT	
image	VARCHAR(255)	
parent_id	INT	NULL, FOREIGN KEY
status	ENUM('active', 'inactive')	DEFAULT 'active'
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

### 3.4 products Table

Description: Stores product information

Fields:

Field Name	Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
name	VARCHAR(255)	NOT NULL
slug	VARCHAR(255)	UNIQUE, NOT NULL
description	TEXT	
short_description	VARCHAR(500)	
category_id	INT	NOT NULL, FOREIGN KEY



price	DECIMAL(10,2)	NOT NULL
sale_price	DECIMAL(10,2)	NULL
sku	VARCHAR(100)	UNIQUE
stock_quantity	INT	DEFAULT 1
condition_rating	ENUM('excellent', 'very_good', 'good', 'fair')	DEFAULT 'good'
size	VARCHAR(50)	
color	VARCHAR(50)	
brand	VARCHAR(100)	
material	VARCHAR(100)	
care_instructions	TEXT	
featured	BOOLEAN	DEFAULT FALSE
status	ENUM('active', 'inactive', 'sold')	DEFAULT 'active'
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

### 3.5 *product\_images Table*

Description: Stores product images

Fields:

### 3.6 *cart Table*

Description: Stores shopping cart items

Fields:

### 3.7 *orders Table*

Description: Stores order information

Fields:

### 3.8 *order\_items Table*

Description: Stores items within an order

Fields:

### 3.9 *admin\_users Table*

Description: Stores admin user accounts

Fields:

### **3.10 activity\_log Table**

Description: Logs user and system activities

Fields:

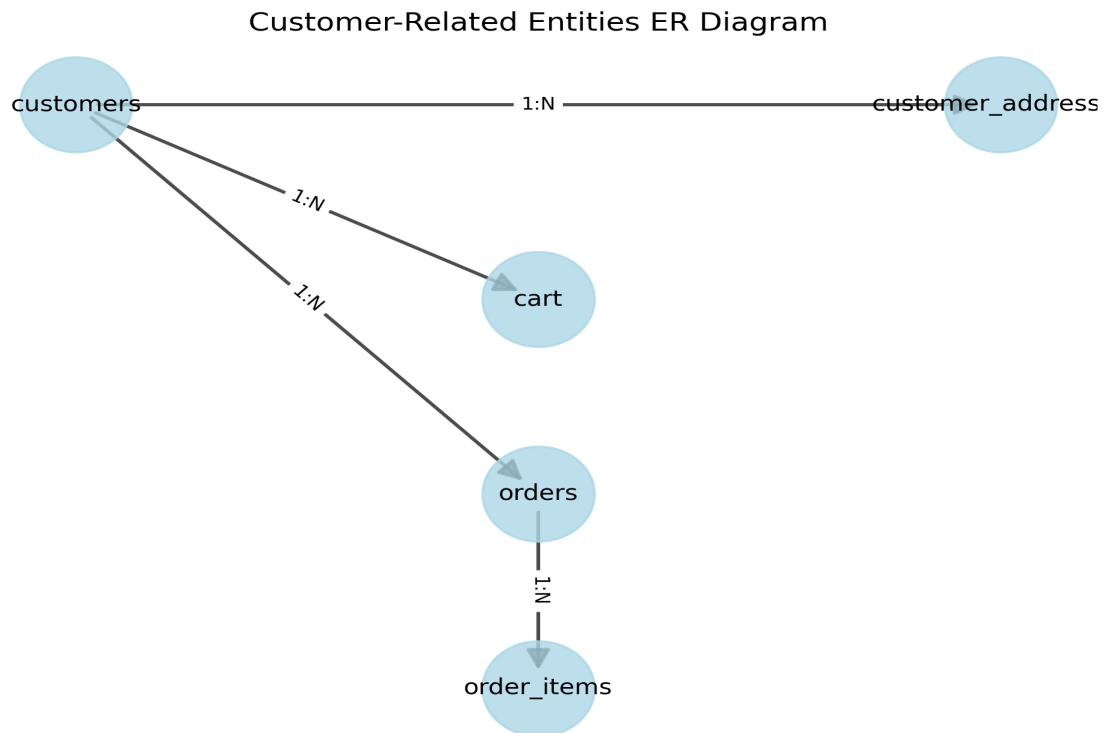
#### ***Relationships between tables:***

- customers 1:N customer\_addresses
- customers 1:N orders
- categories 1:N products
- products 1:N product\_images
- products 1:N cart
- products 1:N order\_items
- orders 1:N order\_items

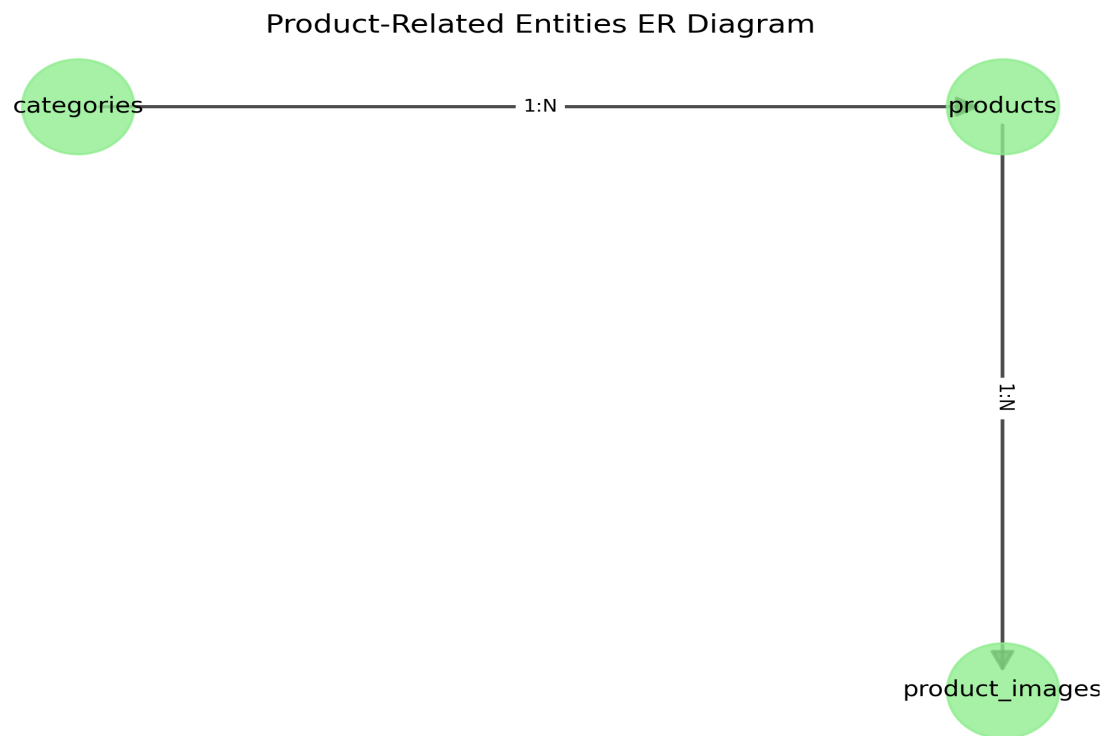
## 4. ENTITY-RELATIONSHIP DIAGRAMS

The following ER diagrams illustrate the relationships between the main entities in the system.

### 4.1 Customer-Related Entities



### 4.2 Product-Related Entities



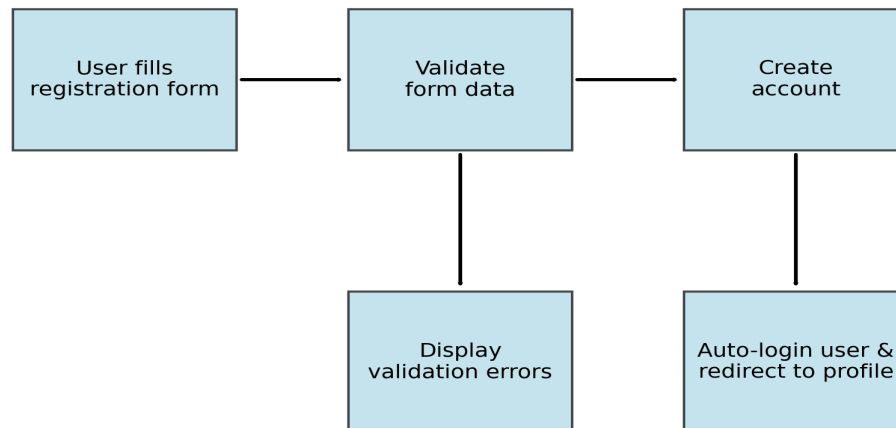
#### ***4.3 Admin-Related Entities***

## 5. FLOW CHARTS

The following flow charts illustrate the main processes in the system.

### 5.1 User Registration Process

User Registration Process



### 5.2 Checkout Process

### 5.3 Admin Order Management Process

## **6. UI/UX OUTLINE**

The ShaiBha platform features a clean, elegant design with a focus on showcasing the pre-loved fashion items. The UI/UX is designed to be intuitive and responsive.

### ***6.1 Frontend Pages***

- Home Page
- Shop Page
- Product Detail Page
- Cart Page
- Checkout Page
- User Account Pages

### ***6.2 Admin Panel Pages***

- Dashboard
- Products Management
- Orders Management
- Customers Management
- Reports

### ***6.3 Design Elements***

- Color Scheme:
- Typography:
- UI Components:

### ***Sample UI Mockups:***

Pre-loved Fashion  
Reimagined

Discover unique, sustainable fashion pieces  
that tell a story.

Shop Now

Featured Categories

Category 1

Category 2

Category 3

Category 4

Featured Products

Product 1  
₹1999

Product 2  
₹2999

Product 3  
₹3999

## **7. IMPLEMENTATION PLAN**

The implementation of the ShaiBha platform will be divided into the following phases:

### ***7.1 Phase 1: Foundation***

- Database schema setup
- Basic frontend structure and styling
- User authentication system
- Admin authentication system
- Core file structure and organization
- Basic security implementation

### ***7.2 Phase 2: Core E-commerce Functionality***

- Product catalog and browsing
- Product detail pages
- Shopping cart functionality
- Checkout process
- Order management
- Basic search functionality

### ***7.3 Phase 3: Admin Functionality***

- Admin dashboard
- Product management
- Order management
- Customer management
- Basic reporting
- Activity logging

### ***7.4 Phase 4: Enhancements***

- User profiles and account management
- Advanced search and filtering
- Responsive design optimizations
- Performance optimizations
- SEO improvements
- Content pages (About, Contact, etc.)

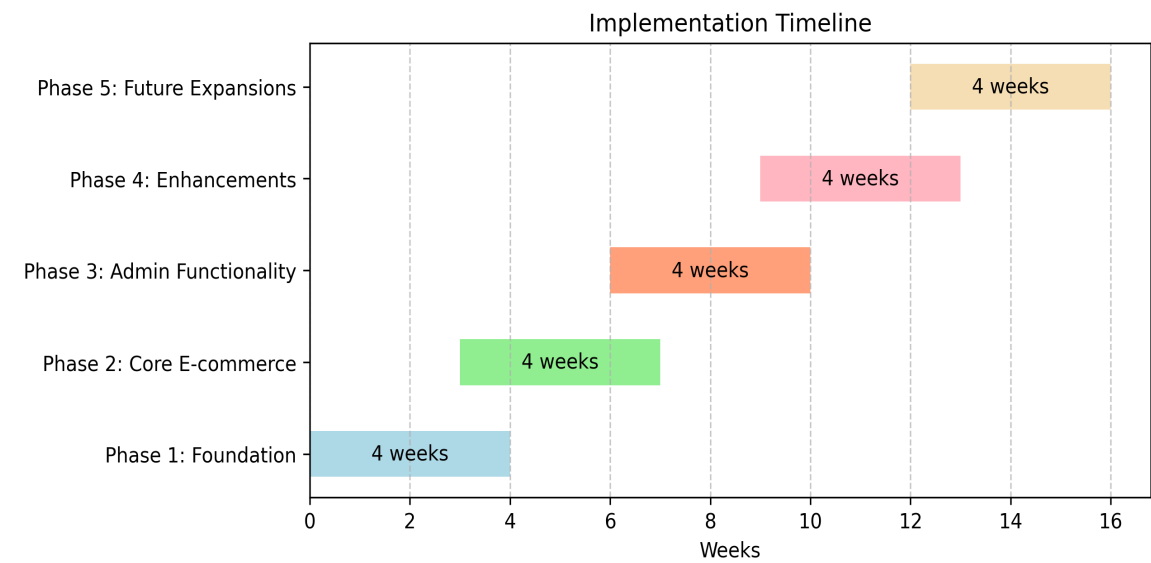
### ***7.5 Phase 5: Future Expansions***

- Payment gateway integration
- Email notifications
- Wishlist functionality
- Product reviews
- Advanced reporting



- Social media integration

**Implementation Timeline:**



## **8. TECHNICAL SPECIFICATIONS**

### ***8.1 File Structure***

- /admin - Admin panel files
- /cart - Shopping cart functionality
- /config - Configuration files
- /css - Stylesheet files
- /customer - Customer account functionality
- /images - Image assets
- /includes - Reusable PHP components
- /js - JavaScript files
- /pages - Static pages
- /services - Service pages
- /shop - Shop functionality
- /uploads - User uploaded content

### ***8.2 Security Measures***

- Password hashing using PHP's password\_hash()
- CSRF token protection for forms
- Input sanitization and validation
- Prepared statements for database queries
- Session management and security
- XSS prevention through output escaping
- Secure cookie settings
- Rate limiting for login attempts

### ***8.3 Performance Considerations***

- Image optimization
- Database indexing
- Caching strategies
- Lazy loading of images
- Code minification
- Efficient database queries
- Pagination for large data sets

### ***8.4 Responsive Design Approach***

- Mobile-first design philosophy
- Fluid grid layouts
- Flexible images and media
- CSS media queries for breakpoints
- Touch-friendly interface elements
- Optimized navigation for mobile devices

## **8.5 Browser Compatibility**

- Chrome (latest 2 versions)
- Firefox (latest 2 versions)
- Safari (latest 2 versions)
- Edge (latest 2 versions)
- Opera (latest 2 versions)
- Mobile browsers (iOS Safari, Android Chrome)

## 9. CONCLUSION

The ShaiBha pre-loved fashion e-commerce platform is designed to provide a seamless shopping experience for users interested in sustainable fashion. With its comprehensive feature set, intuitive user interface, and robust admin capabilities, the platform aims to make pre-loved fashion accessible while promoting sustainability in the fashion industry.

The platform's focus on quality curation, detailed condition descriptions, and transparent business practices will help build trust with customers and establish ShaiBha as a reputable marketplace for pre-loved fashion items.

By implementing the platform in phases, we ensure a systematic approach to development, allowing for testing and refinement at each stage. The modular architecture also facilitates future expansions and integrations as the business grows.

The success of ShaiBha will be measured not only by its technical performance but also by its contribution to sustainable fashion practices and customer satisfaction. By creating a platform that makes it easy and enjoyable to shop for pre-loved fashion, ShaiBha aims to change consumer behavior and promote a more sustainable approach to fashion consumption.