NK Automobiles

Comprehensive E-Commerce Platform for Bike Spare Parts

Project Presentation

Introduction

NK Automobiles is a dedicated e-commerce web application designed to simplify the process of purchasing genuine two-wheeler spare parts online.

Key Goals:

- Bridge the gap between bike owners and authentic suppliers.
- Provide a seamless online shopping experience.
- Offer secure payment options and reliable tracking.

Problem Statement

Current Challenges in the Market:

- Difficulty in finding genuine spare parts for specific bike models.
- Uncertainty about product quality and authenticity.
- Lack of transparent pricing and inventory information.
- Inconvenient offline purchasing requiring physical store visits.

Solution & Key Features

For Users:

- Extensive Product Catalog: Categorized by brand and part type.
- Smart Search & Filters: Easily find parts by bike model or price.
- Secure Authentication: User registration, login, and profile.
- Interactive Shopping: Wishlist, Shopping Cart, and Reviews.

For Admins:

- Product Management: Add, edit, delete products & stock.
- Order Management: View orders and update status.
- Analytics Dashboard: Track sales, user growth, and revenue.

Technology Stack

Frontend:
- HTML5, CSS3, Bootstrap 5 (Responsive)
- JavaScript (Interactive elements)

Backend:
- Python (Core Logic)
- Flask (Web Framework)

Database:
- MySQL (Relational Data Storage)

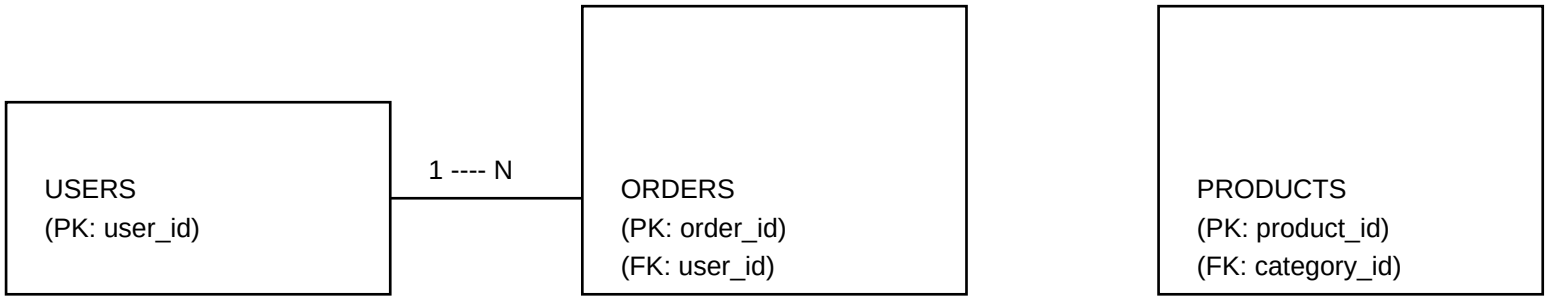
Secure Payment Workflow

Hybrid Payment System:

1. UPI QR Code Integration:
   - Users scan a dynamic QR code for the exact amount.
   - Mandatory Transaction ID entry for verification.
   - Server-side check for duplicate transaction IDs.

2. Cash on Delivery (COD):
   - Traditional option for user trust and convenience.

Database Schema (ER Relationships)



Key Tables & Relationships:

- Users Place Orders (1-to-Many)
- Orders Contain Order Items (1-to-Many)
- Products belong to Categories (Many-to-1)
- Users Write Reviews for Products (Many-to-Many)

User Workflow (Flowchart)

Step-by-Step Flow:

1. Visitor explores the product catalog.
2. Adds desired items to cart.
3. Authenticates to proceed (Login/Signup).
4. Enters delivery details and selects payment.
5. Completes purchase -> System updates Inventory.

Future Enhancements

- Mobile Application Development (Android/iOS).
- AI-Powered Recommendation System for spare parts.
- Integration with Razorpay/Stripe Payment Gateways.
- Live Chat Customer Support.
- Multi-language interface for wider accessibility.

Conclusion

NK Automobiles successfully addresses the market need for a reliable online spare parts store.

By combining a user-friendly interface with robust backend management, it ensures efficient operations and customer satisfaction.

Thank You

Questions & Answers