ZNIFA®
REDEFINING DIGITAL TRANSFORMATION



CASE STUDY

BASIRA

E-COMMERCE MANAGEMENT SYSTEM

CORE TECHNOLOGIES

- React
- Java
- Spring Boot
- JDBC
- PostgreSQL
- REST APIs
- Material UI (MUI)

INTRODUCTION

Basira is an E-Commerce Management System designed to streamline product, inventory, purchase and order-related operations through a centralized digital platform. The solution brings key e-commerce workflows together while supporting efficient product configuration, stock management, customer management and transaction processing.



PRODUCT SYNOPSIS

A Centralised Platform for E-Commerce Management

Basira provides a unified platform for managing essential e-commerce operations. The solution supports product and catalog management, customer management, inventory, purchasing, order processing and bulk stock updates, enabling businesses to manage their operations through structured digital workflows.

KEY FEATURES

- Product & Catalog Management
- Customer Management
- Inventory Management
- Purchase Management
- Order Processing
- Bulk Stock Updates

RESOURCES ENGAGED

The project was implemented by a 4-member development team over a 15-month project duration. The team worked across frontend, backend, database, business workflows and data processing to deliver an integrated e-commerce management platform.

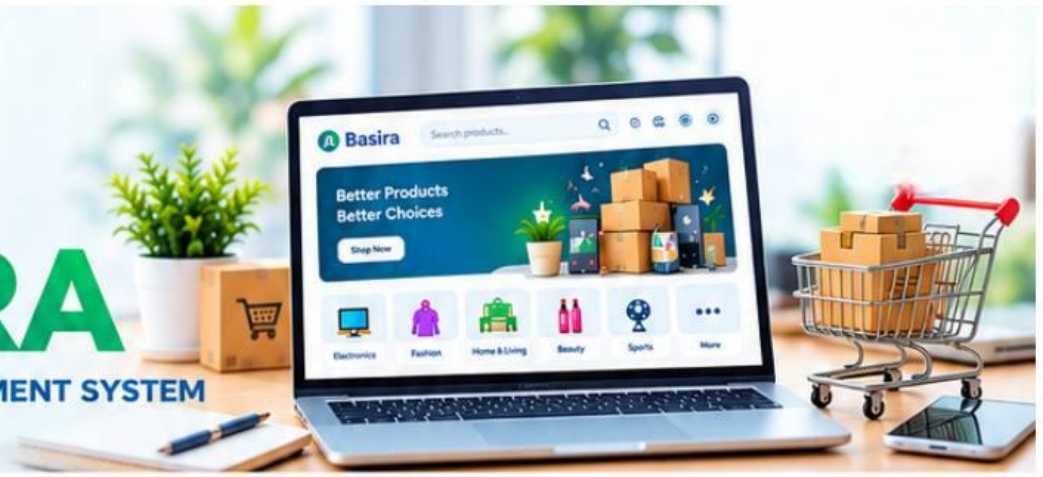
- 4-Member Team
- 15 Months Duration
- Frontend, Backend, Database, Business Workflows & Data Processing

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KEY CHALLENGES

1. Managing products across categories and subcategories
2. Supporting product attributes and multiple variants
3. Maintaining accurate inventory information
4. Managing customer, purchase and order workflows
5. Processing large volumes of stock data through Excel
6. Validating bulk-uploaded inventory information
7. Maintaining consistent data across multiple modules
8. Integrating responsive frontend screens with backend REST APIs
9. Supporting complex business rules and transaction workflows
10. Maintaining application performance across core operations

SOLUTION IMPLEMENTATION

Znifa developed Basira as a centralized e-commerce management platform combining product, inventory, purchasing and order management capabilities.

Product & Catalog Management
Implemented product, category, subcategory, attribute and variant management to support structured product configuration.

Customer Management
Developed customer management functionality to maintain and organize customer information within the platform.

Inventory Management
Implemented inventory workflows to manage stock information and support day-to-day product availability management.

Purchase & Order Management
Developed integrated purchase and order workflows to support structured e-commerce transaction processing.

Bulk Stock Upload
Implemented Excel-based bulk stock upload functionality to simplify large-scale inventory updates and reduce manual data entry.

Validation & Business Processing
Applied data validation and business rules to maintain consistency across product, inventory and transaction workflows.

Frontend Development
Developed responsive React and Material UI interfaces for product, inventory, purchase, customer and order management.

Backend & API Integration
Developed Spring Boot REST APIs using Java and JDBC to connect frontend modules with backend services and database operations.

Efficient Operations Stronger Growth



RESULTS & DATA

94%
Product Management Coverage
Centralized product, category, attribute and variant workflows in a unified platform.

91%
Inventory Management Coverage
Improved stock management and product availability workflows.

96%
Bulk Stock Update Efficiency
Excel-based stock processing for faster and easier updates.

92%
Business Process Coverage
Integrated product, inventory, purchase and order workflows.

95%
Application Integration Efficiency
Seamless frontend, backend and database integration for better performance.