

**Title:** PDI Inspection Database

**Introduction:**

In warehouse operations, maintaining product quality before delivery is crucial for customer satisfaction. Traditionally, tracking faulty products across multiple branches has relied on manual, error-prone methods. To address this, our team developed the PDI (Pre-Delivery Inspection) Database, a centralized digital solution for logging and managing faulty items.

**Objective:**

The project aimed to keep track of faulty products in different branches of the warehouse before delivery and make navigation to the previous product information a breeze.

**Methodology:**

Using a combination of HTML, CSS, JavaScript, ReactJS, and a backend powered by Node.js and MongoDB, Our team developed a responsive web application with full CRUD functionality. The system allowed users to add, update, and delete inventory faulty items, track faulty products, and generate real-time reports. Security measures, such as user authentication and authorization, were implemented to ensure data integrity. The system integrates digital and physical processes and provides an interface for digital data management.

**Key Findings:**

The platform significantly improved the efficiency of tracking faulty products, providing real-time visibility into product issues across all warehouse branches. Users reported improved ease of access to employee work data and streamlined tracking of product faults through the dashboard made using React. The centralized information on faulty products has minimized manual error logging and allowed for more accurate logging, ultimately boosting productivity.

**Significance:**

This project enhances the efficiency of the overall inventory management process showing the transformative potential of automation, by reducing the need for manual tracking and error-prone paper logs. The system ensures greater accuracy. This solution upholds product quality and customer satisfaction.