Order Management System

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The Order Management System (OMS) is a digital platform designed to streamline and automate the processing of orders, inventory tracking, and stock management for business-to-business (B2B) operations. It addresses critical challenges such as delayed deliveries, manual data errors, inefficient inventory usage, and lack of coordination between suppliers, warehouses, and distributors.

A **key innovation** of the system is its **order prioritization algorithm**, which dynamically ranks orders based on two critical factors: the **delivery deadline** and the **delivery location**. This algorithm ensures that time-sensitive and logistically demanding orders are processed first, minimizing delays and improving overall customer satisfaction. By automatically sorting and queuing orders based on urgency and distance, the system helps optimize distribution routes and warehouse efficiency.

Technologically, the OMS is built using **ASP.NET Core** for the backend, offering a scalable and secure architecture. The **Angular** framework powers the front-end, delivering a responsive and user-friendly interface. Data is stored and managed using **Microsoft SQL Server**, providing robust query performance and transactional integrity.

By combining modern web technologies with intelligent prioritization logic, the Order Management System provides businesses with enhanced operational control, reduced delays, and improved decision-making throughout the order lifecycle.

References

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