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National Bookstore Inventory Management System

Information Management

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Our bookstore's database analysis entailed running a number of SQL queries with the purpose of revealing key performance indicators and business insights. Among the main queries, orders were grouped by month and year to determine the revenue and number of orders over time. This exposed seasonal patterns in customer buying habits, enabling us to see peak months where offers or extra stock could be best utilized, as well as less busy months where marketing could be pushed harder.

A further question asked us to find the top 5 most popular books over the last six months. By adding up the number of each book sold, we were able to see customer trends and developing patterns. This data informs more informed inventory choices, with high-demanding titles having sufficient stock and greater visibility. We also measured supplier performance through a look at the quantity of books shipped and the number in current stock. This revealed which suppliers ship a high quantity of books on a consistent basis and have good stock levels—key data to inform procurement planning and partnership assessment.

From the perspective of customer behavior, we measured user retention based on order activity per user. This query showed us which users are most active and how much they spend, so the business can reward loyalty programs, customize promotions, or reward high-value customers. Finally, a query was run to identify books with low stock levels (less than 10 units). This in advance manner of restocking ensures timely replenishment and avoids lost sales caused by stockouts. The presence of supplier contact information also makes the restocking easier.

From the findings of such questions, a number of business decisions can be made. For instance, the firm can plan marketing campaigns during months with slow sales, target restocking efforts on best-selling books, and cultivate better relationships with dependable suppliers. Segmentation of customers by buying behavior can also support personalized marketing and interaction efforts.

To display these observations in a clear manner, a dashboard might consist of a monthly line graph of revenue and order patterns, a bar graph of top-selling books, and a pie graph indicating supplier contributions to stock. A leaderboard table of top customers and an alert table of low-stock books with supplier information would be beneficial as well. These types of visual components would enable decision-makers to see the business in real-time and respond rapidly on the basis of data.