Inventory Management System

software tool designed to track and manage the stock of goods in a business. It helps streamline the process of ordering, storing, and utilizing inventory by providing real-time updates on stock levels.

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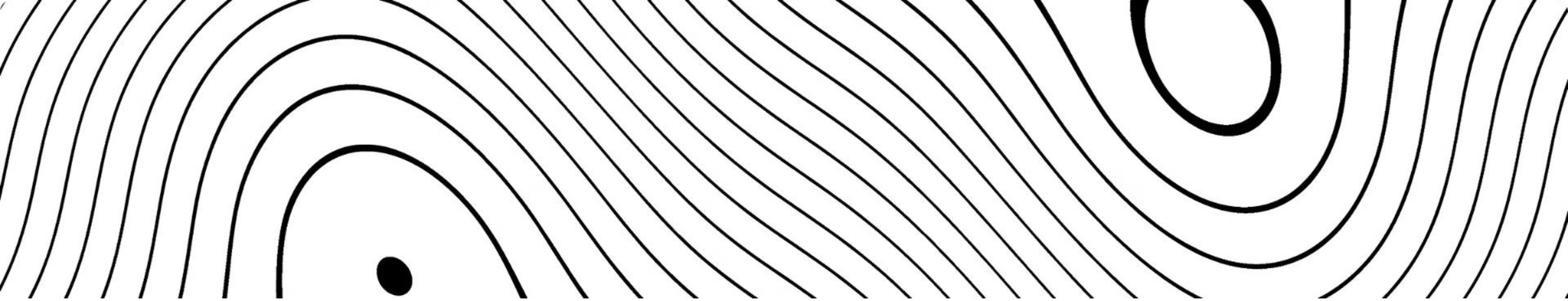

Overview of Technologies Used

Database

MongoDB,

using mongoDB compass for easier approach.

Back-end

Java programming language.

Front-end

we used javafx library and scene builder to develop a user interface.We also used CSS to style the forms.

Why MongoDB?

Schema-less Design

Flexible, JSON-like documents allow evolving data model

Scalability

Scales out horizontally across multiple servers

Performance

Highly performant with proper optimization and scaling

Rich Query Language

Powerful querying, indexing, and aggregation

Community Support

Large active community with plenty of resources

Database Collections

Login Info

Only Authorized admins can access dashboard.

1

2

Product

Comprehensive information on all products, including Type, Brand, stock level and pricing.

Orders

This collection contains information about each order, including the products in the order.

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Customer

Any customer added in this collection can place orders.

Key Features of the Inventory Management System

Add Products

Easily add new products with detailed info like ID, type, brand, name, quantity, and price.

View Products

Retrieve and display a comprehensive list of all products in the database.

Delete Products

Remove items from the database to keep the inventory up-to-date.

Update Products

Select a product and make changes to its details for accurate information.

Search

Quickly find products based on name, brand, or type.

Add Orders

Create new orders to streamline the order fulfillment process.

Conclusion

As we have seen throughout this presentation, the Inventory Management System we have developed leverages the flexibility and scalability of MongoDB to effectively track and manage the inventory of goods for our business. By utilizing Java for the back-end and JavaFX for the front-end, we have created a user-friendly and robust system that addresses the key challenges faced in inventory management.