

# Strategic Recommendations for MintClassics: Inventory Control and Overhead Reduction

## Introduction:

MintClassics has tasked us with assessing warehouse capacity and inventory control to better position the company for further growth. This document presents strategic recommendations based on comprehensive analysis and SQL inquiries.

## Warehouse Capacity Optimization:

### Recommendation:

As the total capacity of all four warehouses is below 75%, there is significant potential to optimize warehouse space utilization. Consider transferring excess inventory from Warehouse South (D), which appears to contain limited or low-stocked items, to other warehouses.

## SQL Inquiry:

```
SELECT * FROM mintclassics.warehouses;
```

```
SELECT  
    productCode,  
    quantityInStock,  
    warehouseCode  
FROM mintclassics.products;  
SELECT * FROM mintclassics.orderdetails;
```

## Action Plan:

Identify warehouses with surplus capacity and implement inventory transfer strategies to optimize space utilization and reduce costs.

## Inventory Management Enhancement:

### Recommendation:

Implement a data-driven approach to inventory management by analyzing product stock levels, order details, and customer order frequency. Store high-demand products closer to customers to improve shipping times and reduce logistics costs.

### SQL Inquiries:

```
-- Query to analyze product stock levels by warehouse
SELECT productCode,
       SUM(quantityInStock) AS total_stock,
       warehouseCode
FROM mintclassics.products
GROUP BY productCode, warehouseCode;
```

```
-- Query to analyze order details for understanding product demand
SELECT productCode,
       COUNT(*) AS total_orders
FROM mintclassics.orderdetails
GROUP BY productCode;
```

```
-- Query to analyze customer order frequency
SELECT customerNumber,
       COUNT(*) AS total_orders
FROM mintclassics.orders
```

```
GROUP BY customerNumber;
```

### **Action Plan:**

Optimize inventory placement based on demand patterns, remove underutilized warehouses, and streamline logistics operations to reduce overhead costs and enhance efficiency.

### **Recommendation:**

Implement a strategy to store inventory items with similar product codes together within warehouses. Grouping or clustering products based on similarities in product codes can streamline picking, packing, and inventory replenishment processes. This approach minimizes the time required to locate and retrieve items, reducing labor costs and enhancing operational efficiency.

### **SQL Inquiry:**

```
SELECT  
    productCode,  
    quantityInStock,  
    warehouseCode  
FROM mintclassics.products;  
SELECT * FROM mintclassics.orderdetails;
```

### **Rationale:**

Storing inventory items with similar product codes together facilitates efficient warehouse operations. By grouping products based on

similarities in product codes, warehouse staff can easily navigate through the warehouse to locate items for order fulfillment. This approach minimizes the time spent searching for specific items, leading to faster order processing and reduced labor costs. Additionally, clustering products based on product codes can optimize storage space utilization, allowing for more effective inventory management and space allocation within warehouses.

### **Action Plan:**

- Conduct an analysis of product codes to identify common patterns or similarities among inventory items.
- Develop a categorization or grouping system based on identified patterns to organize inventory within warehouses.
- Implement labeling or signage systems to clearly indicate the location of grouped inventory items.
- Train warehouse staff on the new inventory organization system and ensure compliance with the established procedures.
- Monitor and evaluate the effectiveness of the strategy periodically, making adjustments as needed to optimize warehouse operations further.

### **Conclusion:**

By implementing the strategic recommendations outlined in this document, MintClassics can optimize warehouse capacity utilization, enhance inventory management practices, and reduce overhead costs. These actions will not only improve operational efficiency but also position the company for sustained growth and profitability in the long term.

This document provides a comprehensive roadmap for MintClassics to achieve its objectives of inventory control and overhead reduction, leveraging data-driven insights derived from SQL analysis.