**MintClassics Warehouse Optimization Report**

**1. Executive Summary**

This report outlines a data-driven evaluation of MintClassics' warehouse operations with a focus on identifying high-demand products, optimizing regional inventory management, and improving operational efficiency across offices. The findings are derived from structured SQL analysis over transactional and organizational data.

**2. Business Context**

MintClassics, a global distributor of classic collectible vehicles and accessories, has experienced warehouse inefficiencies due to:

* Unbalanced stock availability across regions
* Inefficient handling of high-volume items
* Underutilization of regional performance data for operational planning

The goal is to align product flow with demand, streamline order fulfilment, and optimize space usage in key warehouse locations.

**3. Methodology & Data Sources**

SQL queries were used to perform diagnostic analysis on the mintclassics relational database. The data sources include:

* orders, orderdetails: for revenue and product flow
* products, productlines: for product-level categorization
* customers, employees, offices: for mapping sales operations

The analysis was segmented into five parts: data understanding, product performance, office revenue contribution, sales rep performance, and product line insights.

**4. Key Insights**

**4.1 Product Performance**

* The most ordered product by quantity: *1972 Alfa Romeo GTA*
* The highest revenue-generating product: *1992 Ferrari 360 Spider Red*

Implication: Fast-moving and high-value products require differentiated storage strategies to minimize delays and handling risks.

**4.2 Regional Revenue Analysis**

* The **France** office contributed the highest total revenue.
* The **Switzerland** region reported the highest average order value.

Implication: France requires high-frequency stock rotation, while Switzerland demands precision-focused fulfillment for premium clients.

**4.3 Sales Representative Effectiveness**

* The top-performing sales rep: *Employee #1370 – Gerard Hernandez*

Implication: Sales strategies from top performers may inform broader team enablement efforts.

**4.4 Product Line Analysis**

* The leading product category in revenue: *Classic Cars*
* Lowest demand item: *1957 Ford Thunderbird*

Implication: Inventory planning should favor high-performing categories while reevaluating low-demand SKUs.

**5. Strategic Recommendations**

**Inventory Placement and Prioritization**

* Design warehouse layout to prioritize high-volume and high-value products for faster accessibility.

**Regional Fulfilment Optimization**

* France: Invest in stock rotation tools and faster pick-pack systems.
* Switzerland: Ensure availability of premium product stock and accuracy of order packaging.

**Salesforce Utilization**

* Reassign high-performing sales reps to strategic accounts.
* Introduce performance benchmarks based on revenue contribution.

**SKU Lifecycle Management**

* Promote low-demand products or phase out slow movers.
* Introduce real-time KPI tracking to pre-empt inventory depletion.

**6. Conclusion**

This report demonstrates how foundational SQL queries can be translated into meaningful operational recommendations. By understanding demand patterns and regional performance, MintClassics can improve product availability, reduce inefficiencies, and enhance customer satisfaction across its global warehouse operations.

**SQL Workbook Reference:** mintclassics.sql