**kkMy Inventory & Supply Chain Dashboard Project Summary**

# My Project Overview

I created an end-to-end Inventory and Supply Chain Dashboard using Power BI. I worked with four tables: Inventory Levels, Products, Suppliers, and Inventory Transactions (all imported from Excel).

I built relationships between the tables using ProductID and SupplierID. I then used DAX to create calculated coused four datasets:

1. Inventory\_Levels: stock quantities, reorder thresholds, and last restock dates
2. Products: product names, categories, unit cost, and suppliers
3. Suppliers: delivery performance and lead times
4. Inventory\_Transactions: records of inbound and outbound stock movement

**Data Modeling**

I built a star schema in Power BI with one-to-many relationships:

* Products to Inventory\_Levels and Inventory\_Transactions via ProductID
* Suppliers to Products via SupplierID

Cross filter direction was set to Single.columns and measures to analyze stock performance, supplier efficiency, and reorder priorities.

# The Calculated Columns

1. Below Reorder:

BelowReorder = IF('Inventory\_Levels'[CurrentStock] < 'Inventory\_Levels'[ReorderLevel], "Yes", "No")

1. Days Since Last Restock:

DaysSinceRestock = DATEDIFF('Inventory\_Levels'[LastRestockDate], TODAY(), DAY)

# The DAX Measures

1. Total Stock Value:

TotalStockValue = SUMX('Inventory\_Levels', 'Inventory\_Levels'[CurrentStock] \*

RELATED('Products'[UnitCost]))

1. Total Inbound:

TotalInbound = CALCULATE(SUM('Inventory\_Transactions'[Quantity]), 'Inventory\_Transactions'[Type] = "INBOUND")

1. Total Outbound:

TotalOutbound = CALCULATE(SUM('Inventory\_Transactions'[Quantity]), 'Inventory\_Transactions'[Type] = "OUTBOUND")

1. Reorder Count:

ReorderCount = CALCULATE(COUNTROWS('Inventory\_Levels'), 'Inventory\_Levels'[BelowReorder] =

"Yes")

1. Average Lead Time:

AvgLeadTime = AVERAGE('Suppliers'[LeadTimeDays])

1. Inventory Turnover Rate :

TurnoverRate = DIVIDE([TotalOutbound], AVERAGE('Inventory\_Levels'[CurrentStock]))

# The Visuals I Created

* Card visuals: Total Stock Value, Reorder Count, Average Lead Time
* Line Chart: Inbound vs Outbound stock over time
* Table: Products below reorder level
* Matrix: Supplier performance comparison
* Bar Chart: Stock value by product category
* Slicers: Filter by category, supplier, and reorder status

# The Skills I Demonstrated

* Data modeling and relationship setup
* DAX: Calculated columns and measures
* Building insightful visuals and KPI cards
* Dashboard storytelling and business logic