

Interactive Dashboards & Data Modeling

Power BI Data Model & KPI Dashboard Development

Interactive Power BI solution built using structured operational data for KPI monitoring and performance analysis.

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Built on structured pharmaceutical production data using a star-schema model and dynamic KPIs.

Project Objective

- Build an interactive Power BI dashboard
- Clean and transform raw production data
- Create relationships between tables
- Design KPIs using DAX
- Enable filtering by product, stage, shift, and date
- Support real-time production decision-making

Source Data Fields

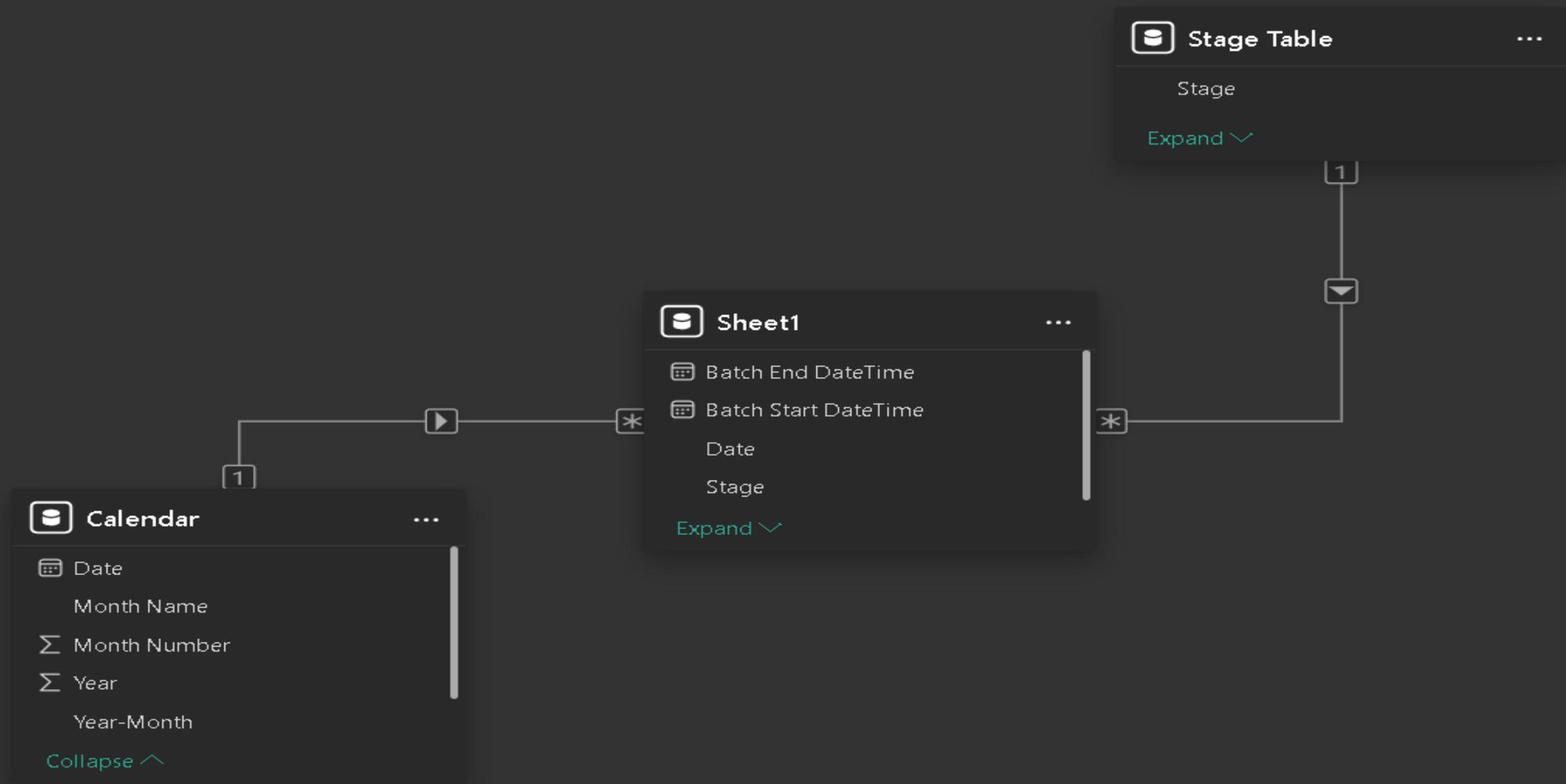
- Batch Number
- Product Name
- Stage
- Batch Size (kg)
- Received Quantity (kg)
- Output Quantity (kg)
- Process Time (hrs)
- Shift
- Incharge Name
- Batch Start & End DateTime

Data Preparation Steps

- Removed blank and duplicate records
- Converted date and time fields
- Standardized stage names
- Extracted shift from time
- Created calculated columns
- Data extracted from SAP/ERP system

Data Modeling in Power BI

- Created Calendar table
- Created Stage dimension table
- Built relationships between tables
- Implemented star schema model
- Designed star schema for efficient performance



KPI Measures Created

- Total Batches
- Total Input (kg)
- Final Output (kg)
- Overall Yield %
- Total Process Loss (kg)
- Avg Process Time
- Batches per Day

Dashboard Interactivity

- Stage-wise performance charts
- Monthly output and loss trends
- Shift-wise output comparison
- Product-wise loss analysis
- Incharge performance tracking

Dynamic Filtering

- Year selector
- Month selector
- Stage filter
- Shift filter
- Product filter
- Incharge filter

Year & Month Selecter

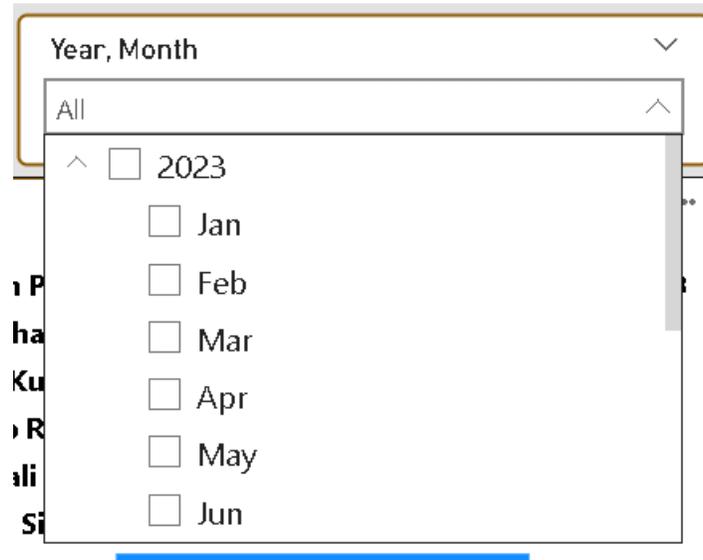
2023	2024
Jan	Feb
Mar	Apr
May	Jun
Jul	Aug
Sep	Oct
Nov	Dec

Shift, Stage and Product wise Filter

Stage and product by shift
All ∨

Stage and product by shift
All ∧
<input type="checkbox"/> Evening
<input type="checkbox"/> Morning
<input type="checkbox"/> Night
<input type="checkbox"/> Coating
<input type="checkbox"/> Compression
<input type="checkbox"/> Amoxicillin 500 mg + Clavulanic ...
<input type="checkbox"/> Azithromycin Tablets 250 mg

Year and Month wise Filter

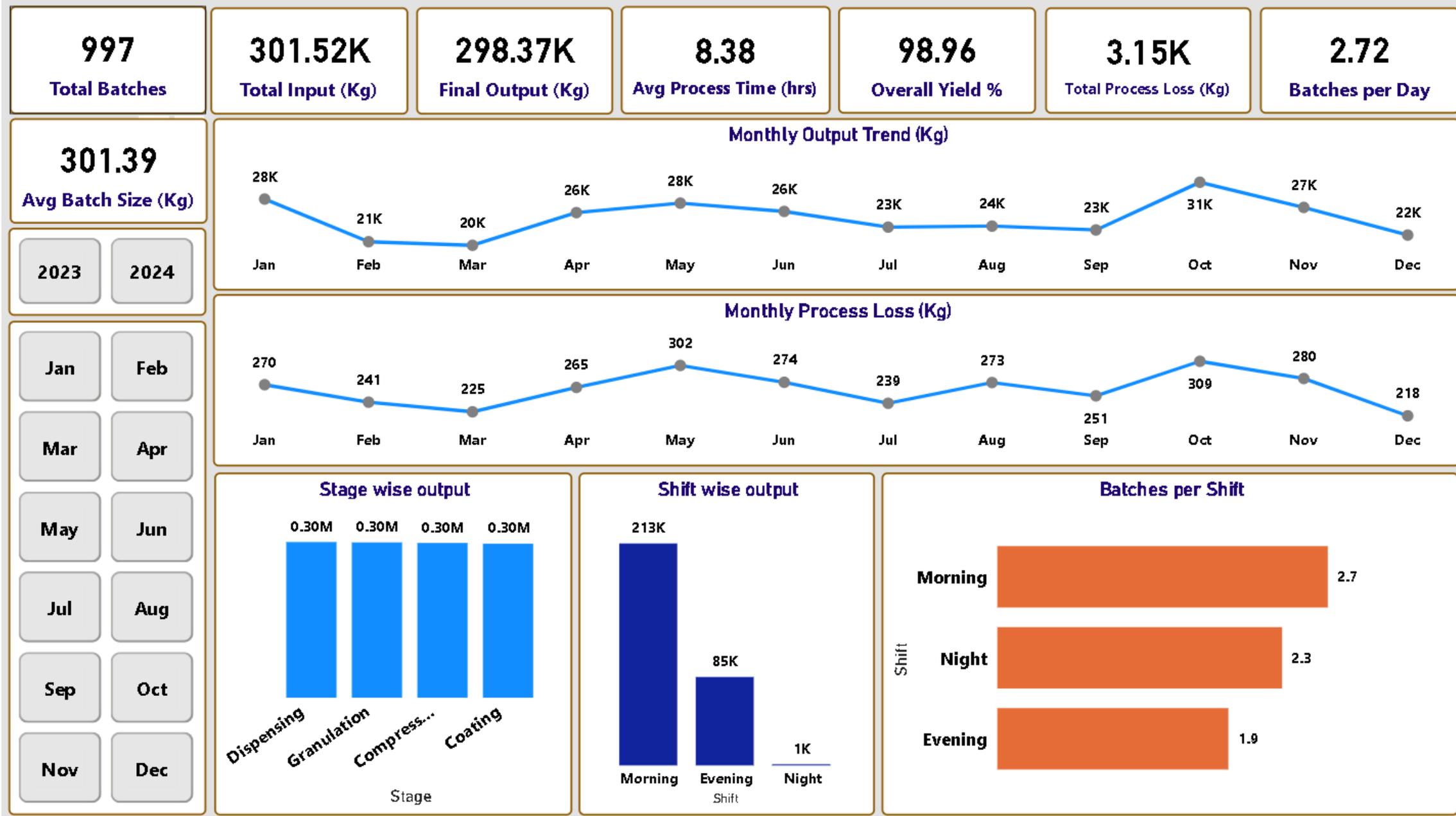


The image shows a dropdown menu titled "Year, Month" with a downward arrow on the right. The menu is open, showing a search bar with "All" and an upward arrow. Below the search bar, there is a list of options with checkboxes:

- 2023
 - Jan
 - Feb
 - Mar
 - Apr
 - May
 - Jun

There is a blue horizontal line at the bottom of the dropdown menu.

Final interactive KPI dashboard with slicers and real-time insights



Tools & Skills

- Power BI
- Power Query
- DAX
- Data modeling
- KPI design & dashboard storytelling
- Excel data preparation
- ERP/SAP-based production data analysis