

Hunt Advantage Group – Pizza & Wings Sales Analytics

Engineering Architecture & Implementation Document

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1. Project Overview

This project simulates a real-world analytics for retail food sales, focusing on transparency across multiple store locations. A centralized architecture is designed for reporting, under strategic orchestration under licensing and platform constraints.

2. Architecture Summary

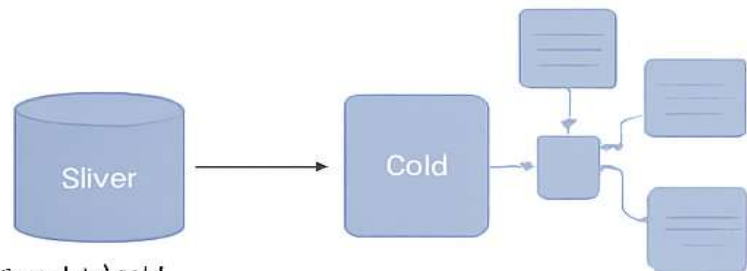
Bronze Layer – Raw Ingestion

- Transformations:
 - Normalized column names and types
 - Join store metadata with orders
 - Calculated fields: pizza_combo, sentiment potentially
- Files; Python (Pandas)
- Output Location: `source\bronze\ingestion\sv_data\bronze`



Silver Layer – Cleaned & Integrated

- Transformations:
 - Normalized column names and types
 - Join store metadata with orders
 - Calculated fields: pizza_combo, sentiment directly
- Files; Python, DuckDB
- Output Location: `source\gold\ingestion\sv_data\gold`



Reporting & Version Control

Power BI Desktop.

- Report: `pizza_reporting.pbix`
- Data from Gold-layer CSVs
- Measures:
 - Total Sales
 - Orders / Avg Value
 - Average Order Value
 - Wings Mix
 - Avg Sentiment

Restriction	Impact	Workaround
Power BI Desktop	<ul style="list-style-type: none">Lightweight versioningSeparation of logic from data	<ul style="list-style-type: none">Pseudo-DisseminationUse of Git for versioningSeparation of logic from dataReusability across environments
Version Control Strategy	<ul style="list-style-type: none">Lightweight versioningSeparation of logic from dataReusability across environments	

Version Control Strategy

Uses `git` for `Power BI`

```
(\pb\reports/  
powerbi_template/
```

Benefits

- Lightweight versioning
- Separation of logic from data
- Reusability across environments

Strategic Highlights

- Simulated Fabric style orchestration in a single
- Demarcated mediation architecture manually for transparency of control
- Used part and change log discipline as work model
- Configured on `Power BI` manually and documentation on `Power BI` active hours

Platform Restrictions & Workarounds Next Steps

- Simulated Fabric style orchestration with open-source tools
- Demonstrated mediation architecture for transparency and control
- Finalize Gold-layer aggregations & D-IX measures
- Deployment of `Power BI` and `Power BI` manually and documentation on `Power BI` active hours