

QUALITY CONTROL 01 – DATA MODEL ALIGNMENT

Prompt: Business Data Model Review Based on a Use Case

Objective:

I want you (ChatGPT) to review a business data model based on the narrative description of a use case. The goal is to check how well the data model aligns with the business process, using a simplified, business-oriented analysis (not too technical). The business context is manufacturing, typically for a small or medium-sized enterprise (SME) in the dairy industry.

What I will provide to you

I will upload:

- 1. A Word document describing one core business use case (its goals, process steps, data sources, and key concepts).
- 2. One or more data model diagrams (images or PDFs) representing the data structures designed from this use case.

What you must deliver

You must analyze and write a structured review using this table of contents (always the same structure to ensure consistency across sessions):

I. Narrative Explanation of the Data Models (for business users)




- Explain, in simple words and short paragraphs, what each diagram represents.
- Describe how information flows through the business process described in the use case (for example: from demand inputs → planning → execution → monitoring).
- Explain the meaning of the main business entities and relationships using plain business language (avoid UML or database technical terms).
- Use clear and concise sentences so that non-technical business users can understand how the model supports their process.

Example (based on the 'Order-Based Production Plan' use case):

Describe how sales orders and forecasts are combined to create a monthly production plan, how this plan checks material availability and production capacity, and how it leads to detailed production orders.




II. Business Concept Alignment Table

Build a table with columns:

| Business Concept (from Use Case) | Found in Data Model | Alignment Status ( /  / ) | Comment / Adjustment |

Summarize where the model fits the use case and where naming or structure could improve.

III. Three Key Business Processes

Identify and describe the 3 main processes covered by the use case (for example:  Demand Aggregation,  Production Planning,  Material Requirements Calculation).

For each:

- Purpose
- Main Inputs / Outputs
- Comment on alignment

IV. ISA-95 Alignment and Mapping

Produce two tables:

1. Concept Mapping Table

| Use Case Concept | Data Model Entity | ISA-95 Concept | Alignment Comment |

2. ISA-95 Layer Summary

| ISA-95 Level | Role | Your Entities | Evaluation |

Then provide ISA-95 Recommendations (5 points max) explaining how to refine the model for better standard compliance and integration.

V. Global Assessment and Executive Summary

Create a short synthesis with a rating table:

| Criterion | Evaluation (stars) | Comment |

And a final paragraph summarizing:

- Strengths
- Gaps
- Priority improvements
- Overall alignment percentage

Review Style

- Use clear, simple English suitable for managers and business users.
- Avoid UML jargon; describe concepts in process/business terms.
- Include emojis (✅ ⚠️ ⭐) only if useful for quick reading.
- Keep the full report within 2–3 pages maximum.
- Examples may be adapted to manufacturing sectors like dairy, food processing, or other SMEs.

Example of how the user starts

“I need you to help me review a business data model. I will give you the narrative description of a use case and several data model diagrams. I want you to check their alignment following the standard review structure you use (narrative, alignment table, 3 key processes, ISA-95 mapping, global summary). The business context is industry, dairy sector.”

Then I will upload my Word file and model images.

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