

# SaaS BI Design

Senior Data Analyst Assignment for Time Doctor  
By Itai Raboy

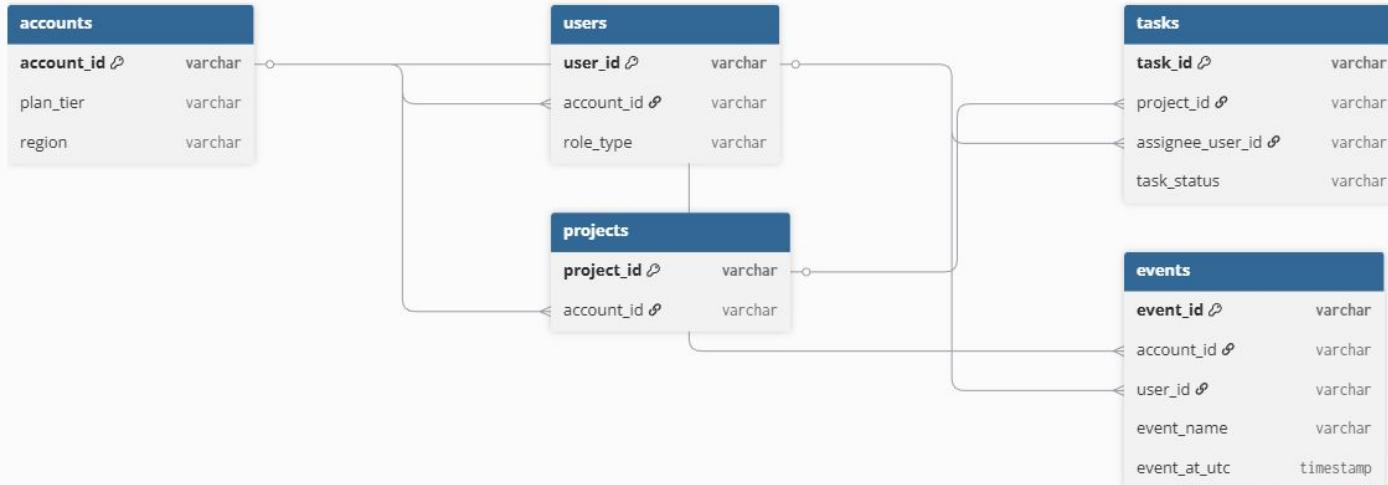
## Objective and Scope

- Context: B2B Project Management SaaS
- Goal: Trusted visibility: usage, engagement, productivity
- Out of scope: Employee monitoring, time tracking

Raw → Transform → Marts → Dashboard

# Data model

- Core principle: Realistic with controlled imperfections
- Supports metrics at weekly grain



# Transformations and KPIs

- Layered SQL: Staging → Intermediate → Marts

KPI	Why it matters	Limitation
<b>WAU</b>	Adoption	Calendar-week logic
<b>W+4 Retention</b>	Stickiness	Strict; Recent cohorts = N/A
<b>Throughput</b>	Value realization	Backlog effects
<b>Cycle Time</b>	Friction	Task mix bias
<b>On-time completion</b>	Reliability	Depends on customer definition
<b>Late event rate</b>	Data trust	-

# Dashboard design

- Page 1: Executive Overview
- Page 2: Engagement & Retention
- Page 3: Productivity & Trust



## QA & Production

- ◎ Guardrails: nulls, anomaly checks, schema drift, lag
- ◎ Next steps: tests/contracts, orchestration, alerting
- ◎ In the future: forecasting, advanced ML

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