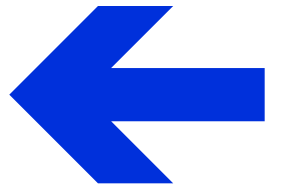


# SorayiCarpets Data Analytics Solution

*Complete ETL Pipeline with Star Schema Design*





# Presentation Overview

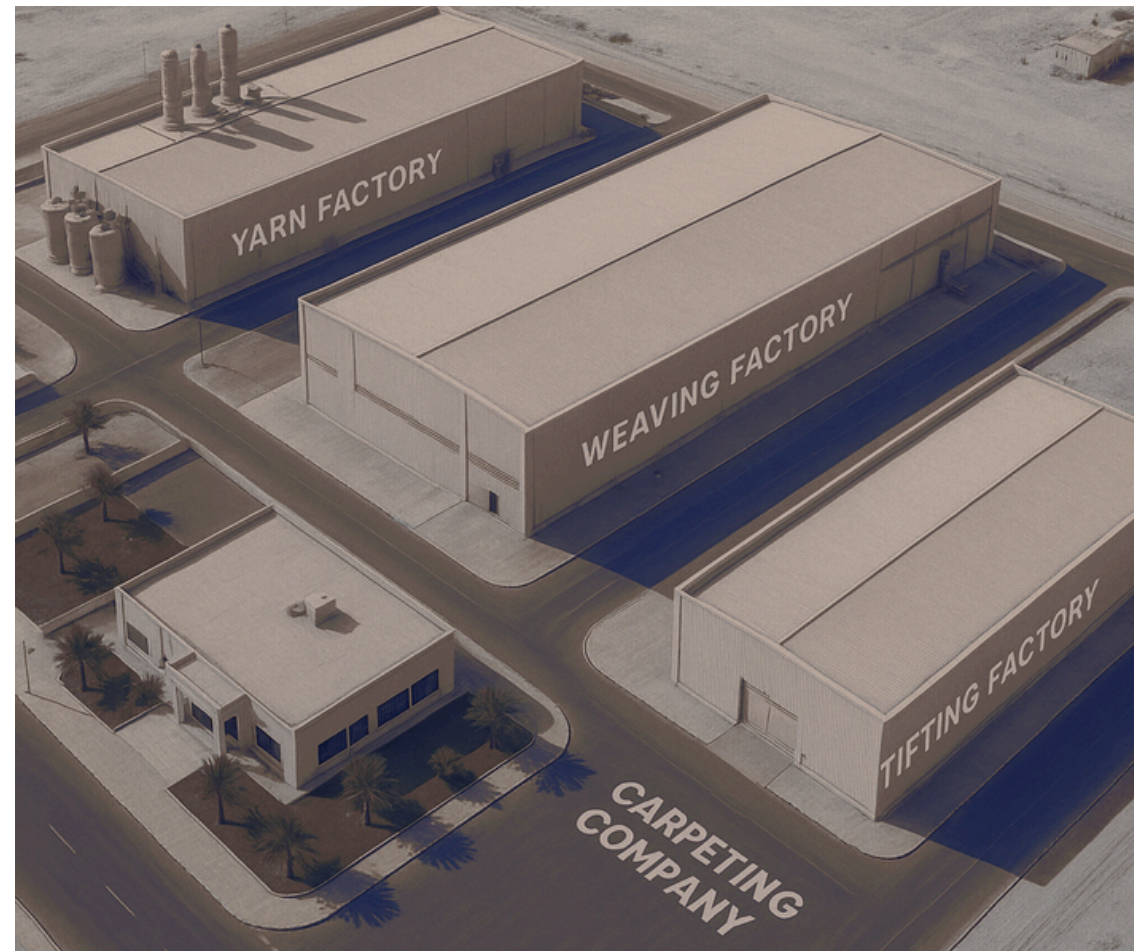
1. Business Context & Objectives (1 min)
2. Technology Stack & Architecture (1 min)
3. LIVE DEMONSTRATION (5 minutes)
  - Initial Load Process
  - Data Warehouse & Star Schema
  - Source System Updates
  - Incremental Load
  - Power BI Visualizations
4. Results & Achievements (1 min)
5. Questions & Discussion (2 minutes)

# Business Context

## SorayiCarpets - Carpet Manufacturing Analytics

### The Challenge:

- Multi-plant carpet manufacturing operations
- Need for real-time inventory visibility
- Production planning and optimization
- Manual reporting processes



### The Solution:

- Complete ETL data pipeline
- Automated inventory analytics
- Interactive business dashboards
- Real-time decision support

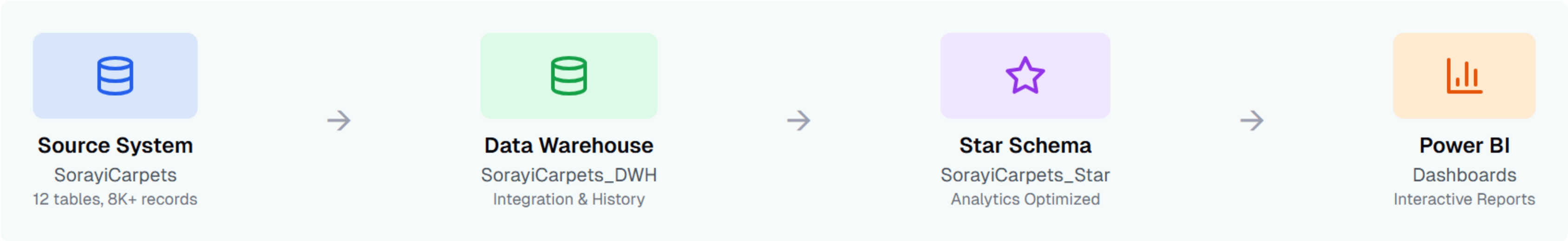
# Technology Stack

## Modern Data Analytics Architecture

Component	Technology	Purpose
Database	SQL Server (SSMS)	Data storage & processing
ETL	Custom SQL Scripts	Data transformation
Data Warehouse	SQL Server DWH	Historical data storage
Analytics	Star Schema Design	Optimized queries
Visualization	Power BI	Interactive dashboards
Orchestration	SQL Server Agent	Automated workflows

# 3-Tier Data Architecture

Complete data flow from source to visualization



**Inventory Star**

**Fact:** FactInventory

**Dims:** Product, Plant, Date, BusinessUnit

**Measures:** Quantity, Value, Trends

**Production Star**

**Fact:** FactProduction

**Dims:** Product, Plant, Date

**Measures:** Output, Efficiency, Costs

**Comparison Star**

**Fact:** FactComparison

**Dims:** Time, Product, Metrics

**Measures:** Period-over-period analysis

# Project Requirements Met

## Project Achievements

All requirements successfully implemented

Data Sources Integration

5/5 points

Data Warehouse Implementation

20/20 points

Star Schema Design

20/20 points

Power BI Visualization

20/20 points

Documentation & Code

15/15 points

Orchestration & Automation

10/10 points

Presentation Quality

10/10 points

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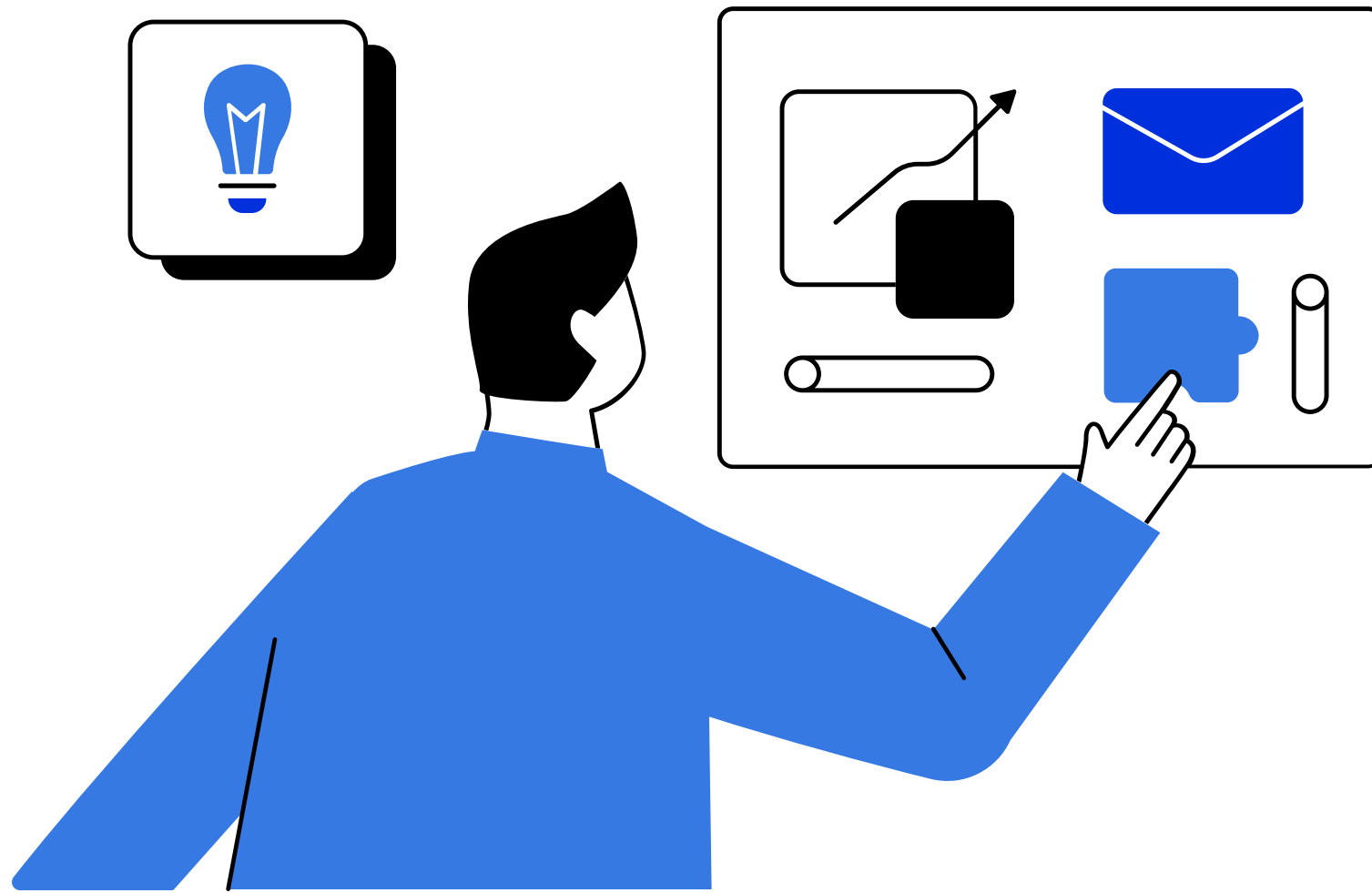
**Total Score**

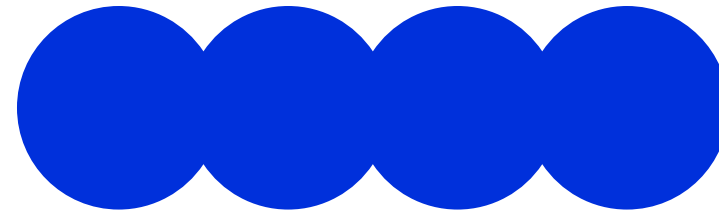
100/100 points



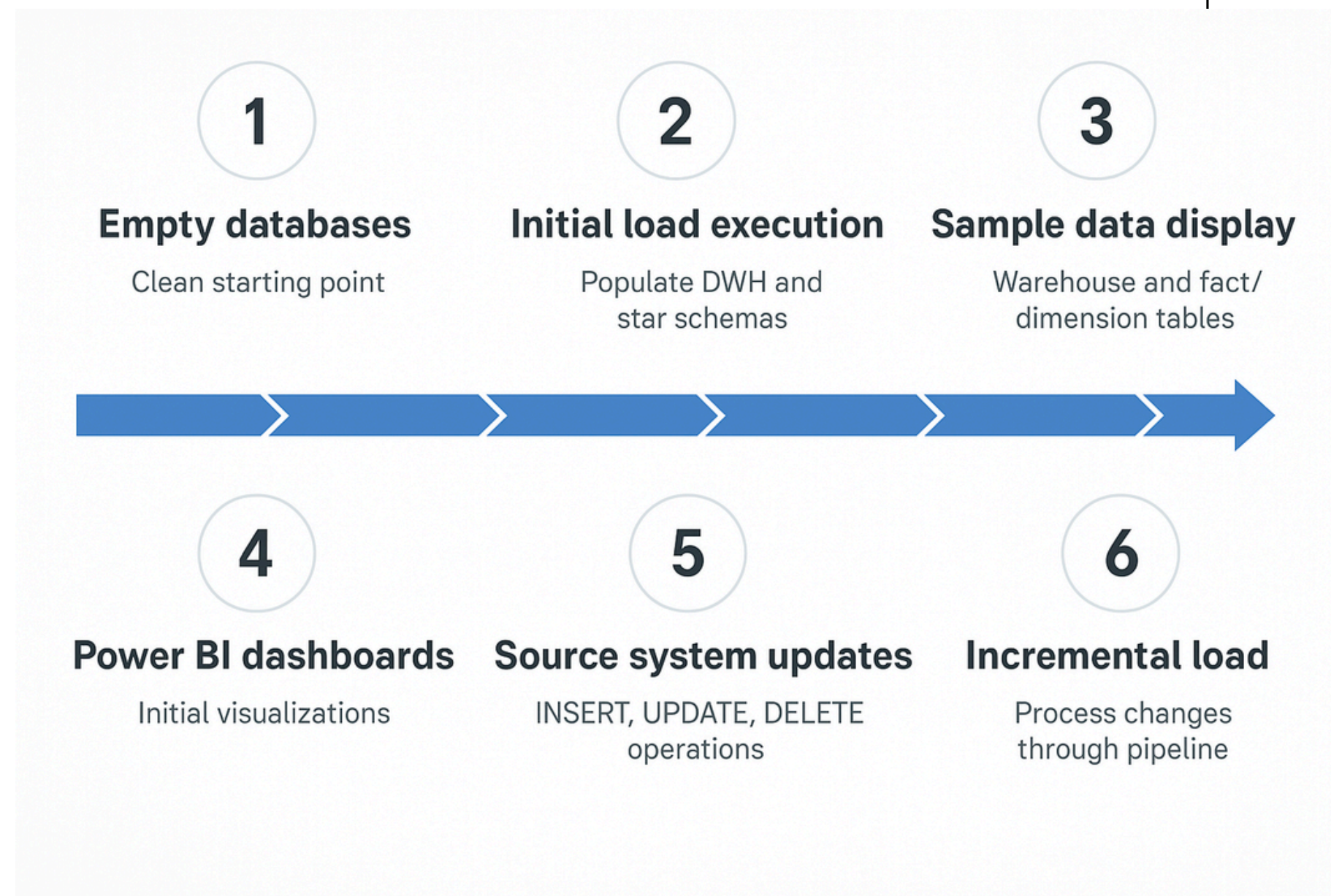
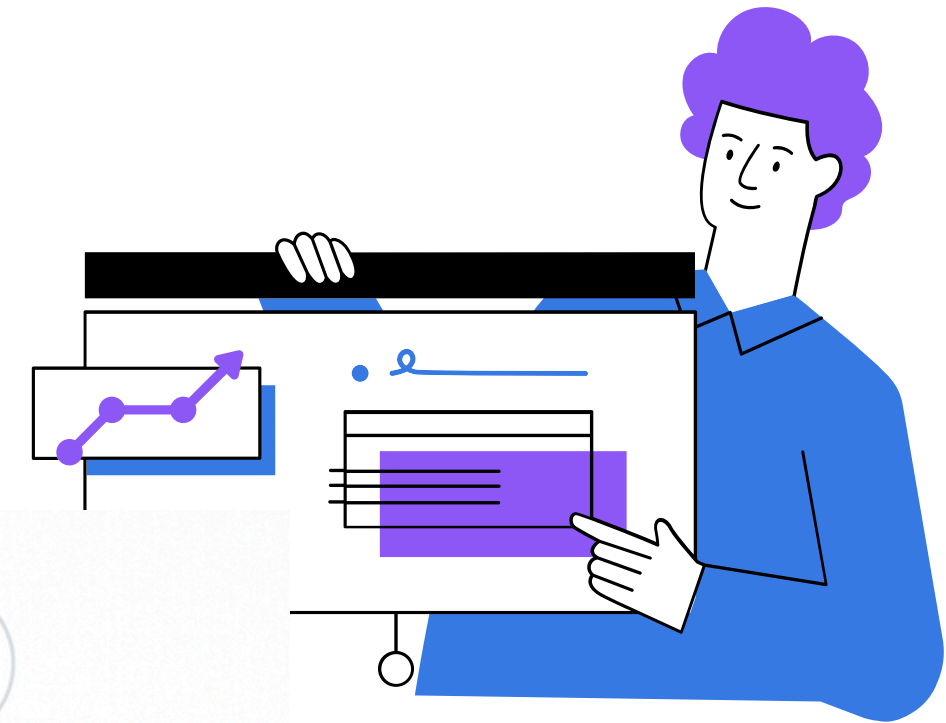
# LIVE DEMONSTRATION

**Let's See the Complete  
Pipeline in Action!**





# What You'll See





# Thank You

