Business Intelligence Lifecycle

A Practical Guide to Building BI Infrastructure Using *Kimball's Methodology*

Planning

Project Planning

This is the **initial stage** where you define:

- Scope of the project
- Budget
- Timeline
- Stakeholders

The goal is to **align the BI strategy** with business goals

Business Requirements

- Interviewing **stakeholders**
- Prioritizing use cases based on **business value**
- Understanding **business processes**
- Defining analytical **requirements** (e.g. KPIs)

Design

Technical Architecture

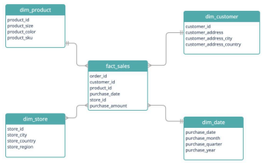
- **Data warehouse** type (e.g., lakehouse)
- Tools and **platforms** (on-prem, cloud)
- **Security**, scalability, performance needs

Product Selection & Installation

- **ETL Tools** (e.g., Data Factory, Fivetran)
- **Data visualization** tools (e.g., Power BI)
- Databases (e.g., Synapse, Snowflake)

Dimensional Modeling

Typically a **Star** or **Snowflake** Schema



- Facts
- Dimensions
- Normalization

Physical Design

Define the actual **database schema**

- Indexing strategies
- Partitioning
- Data types and constraints

BI Application Design

How users will **interact with the data** in your BI solution

- Reports, Dashboards, Scorecards
- Navigation and filters
- UX/UI principles

Implementation

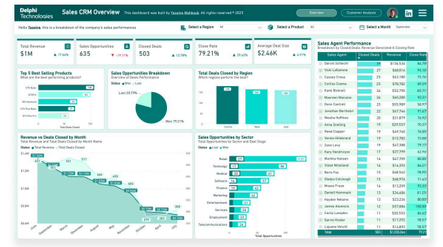
ETL Design & Development

- Extract data from **source systems**
- **Cleanse** and transform the data
- Load it into the **Data Warehouse**

BI Application Development

- Create interactive **dashboards**
- Implement **KPIs** and business logic
- **Validate with end users** for usability

Deployment



Growth

- Add new **data sources**
- Refine **KPIs**
- **Boost Adoption** across teams

Maintenance

- **Monitor** data pipelines
- **Update models** and reports
- Handle **data quality issues**

Project Management

Yassine Mahboub Follow for more **Data & Business Intelligence** Insights

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