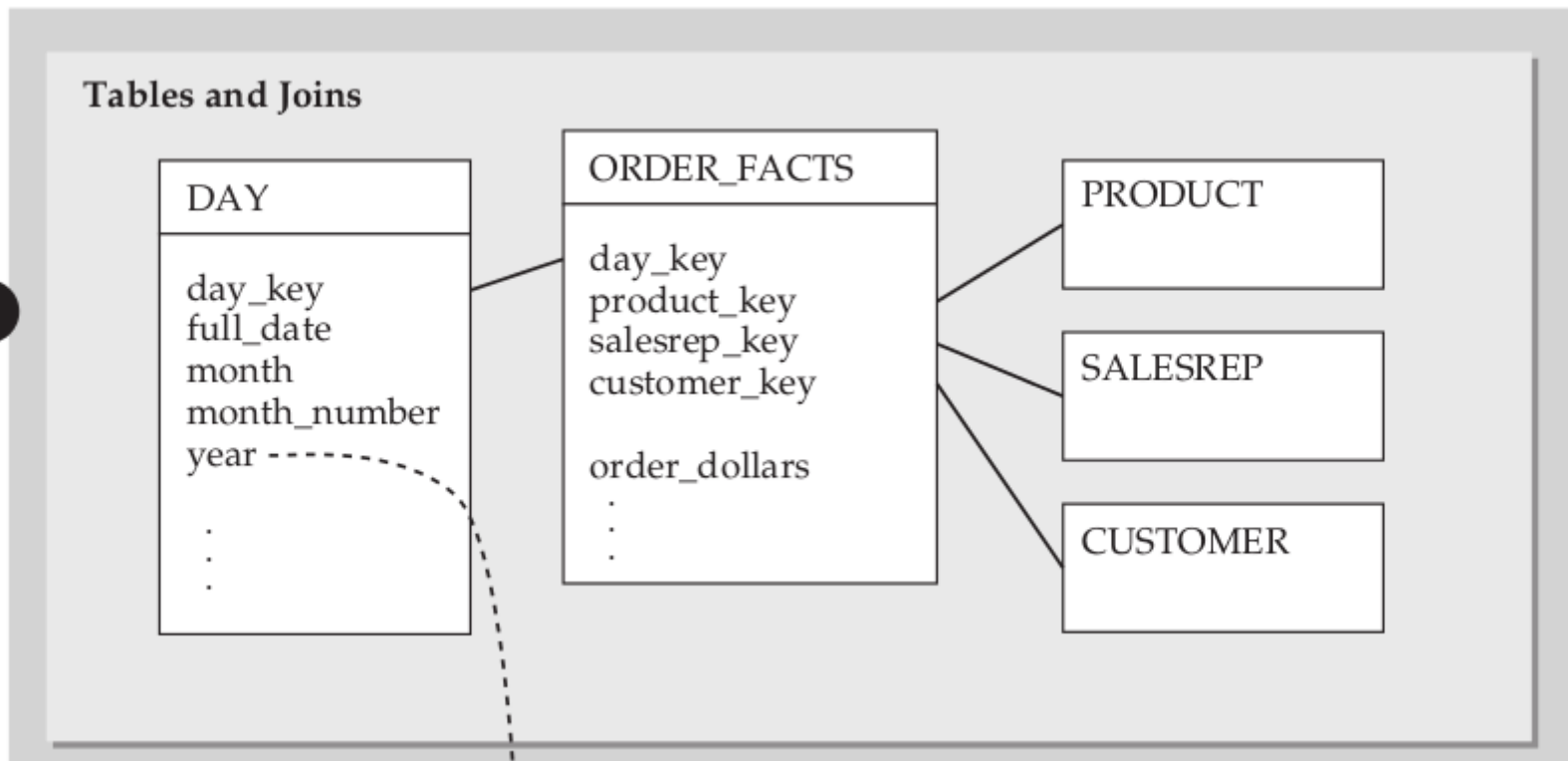


CI2355 – Almacenes de datos y OLAP

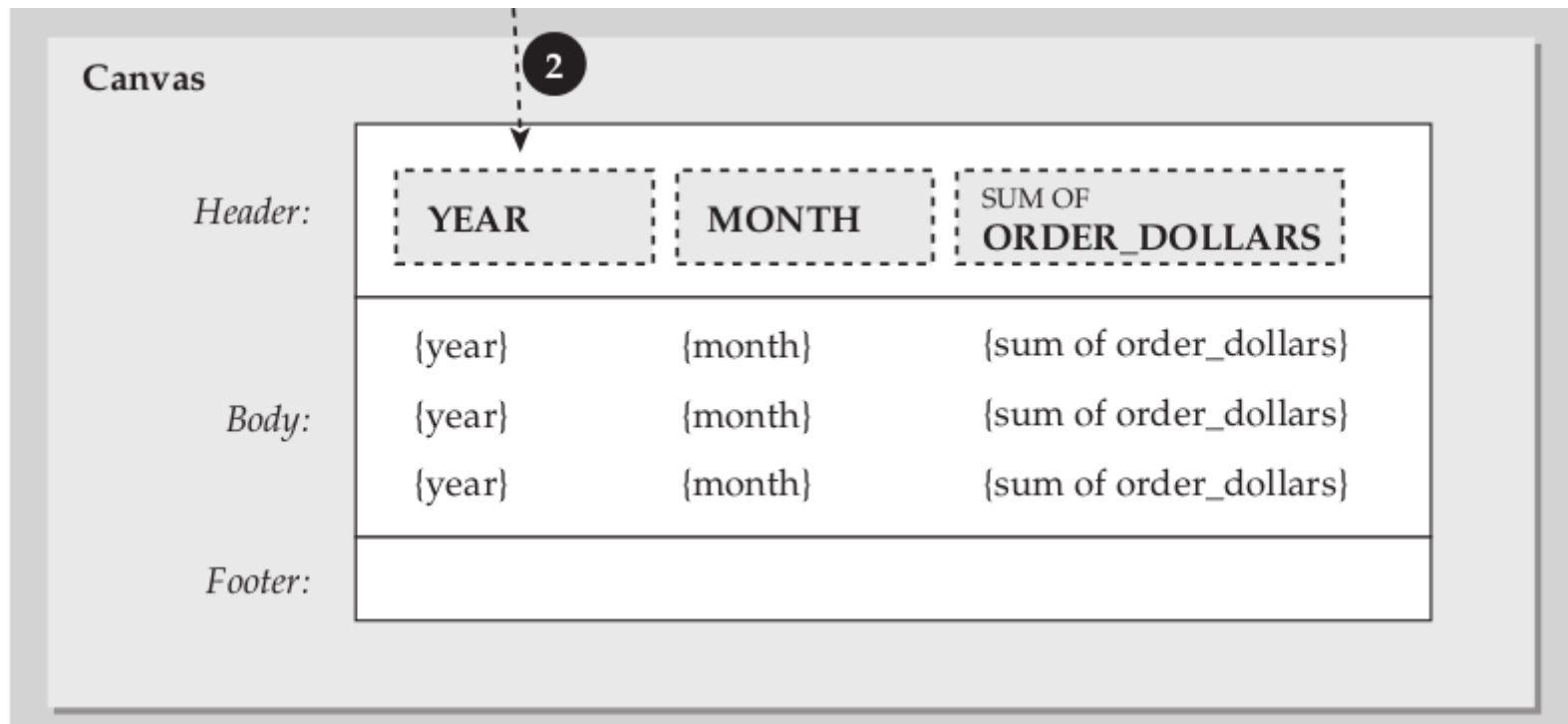


**UNIVERSIDAD DE
COSTA RICA**

Diseño y BI



Diseño y BI



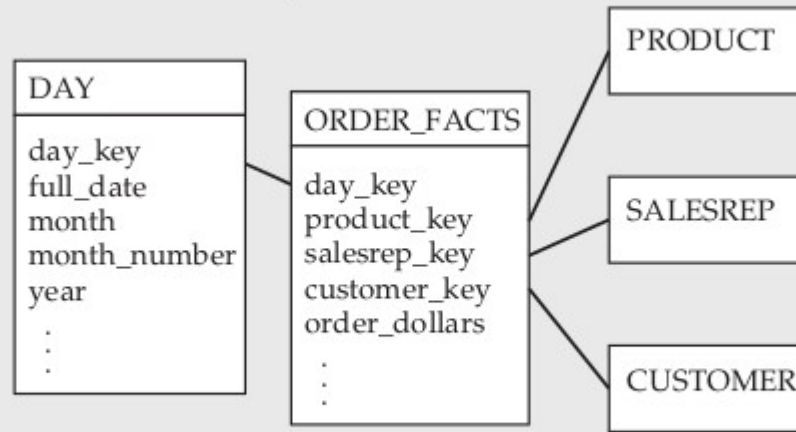
Diseño y BI

Query SQL

3

```
SELECT
  day.year,
  day.month,
  sum(order_facts.order_dollars)
FROM
  day,
  order_facts,
```

Tables / Columns / Joins



Business View

- Only this portion is visible to a report developer or user
- Drag items onto canvas to design reports

Items that can be added to canvas

<i>Business View</i>	<i>Technical Definition</i>
Days	
Date	= day.date
Month	= day.month
Year	= day.year
Customers	
Name	= customer.full_name
Address	= customer.address
Phone	= customer.phone_num
Order Info	
Order Dollars	= sum (order_facts.order_dollars)
:	:
:	:

Semantic Layer

- Configured in advance by a developer or architect
- Used by tool to generate SQL

Limitaciones de los generadores SQL

- Incapacidad de generar las consultas requeridas
- Capacidad para generar consultas no deseadas

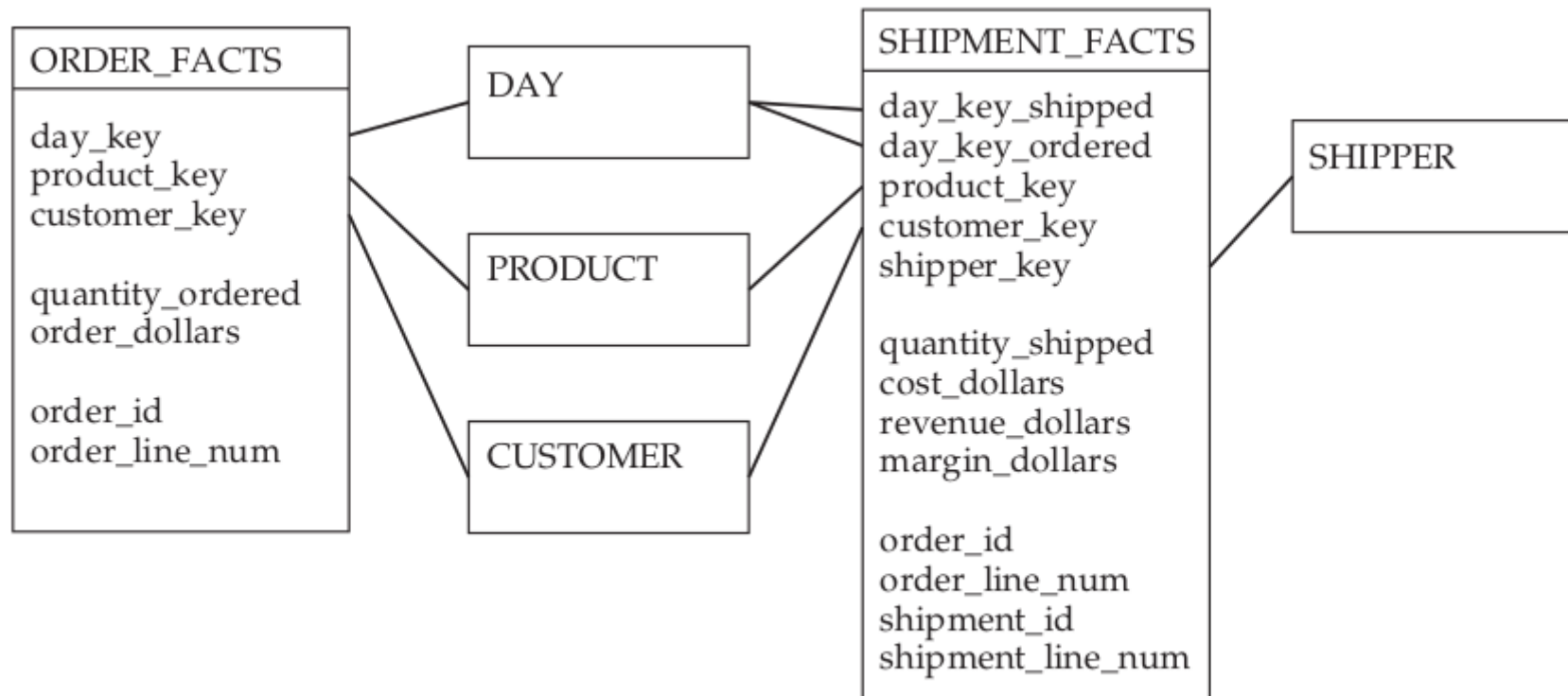
Capa semántica

- Características de las herramientas de BI que es mejor evitar:
 - Renombrar atributos
 - Crear atributos virtuales
 - Depender de *subqueries*

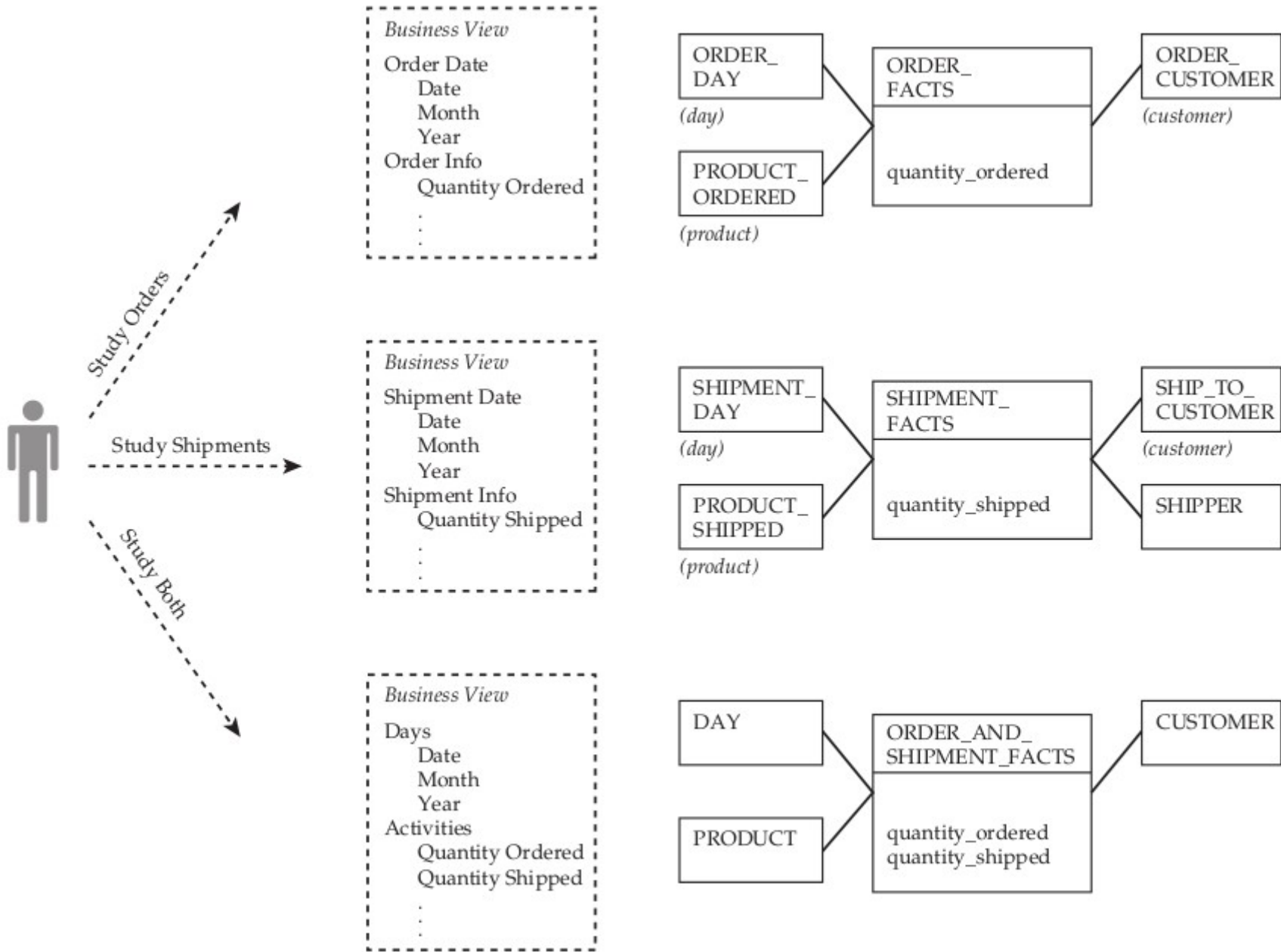
Capa semántica

- Características de las herramientas de BI que está bien utilizar:
 - Cómputo de hechos no aditivos
 - Ej. $\text{sum}(\text{margin_dollars}) / \text{sum}(\text{order_dollars})$
 - Aislar roles en dimensiones
 - Simplificar presentación

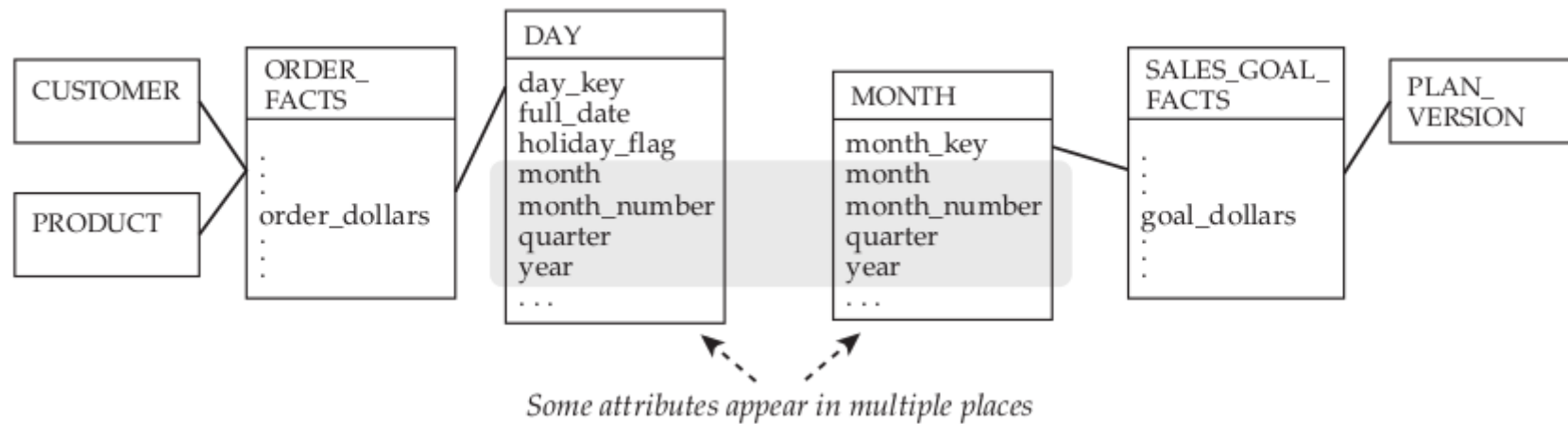
Diseño y BI



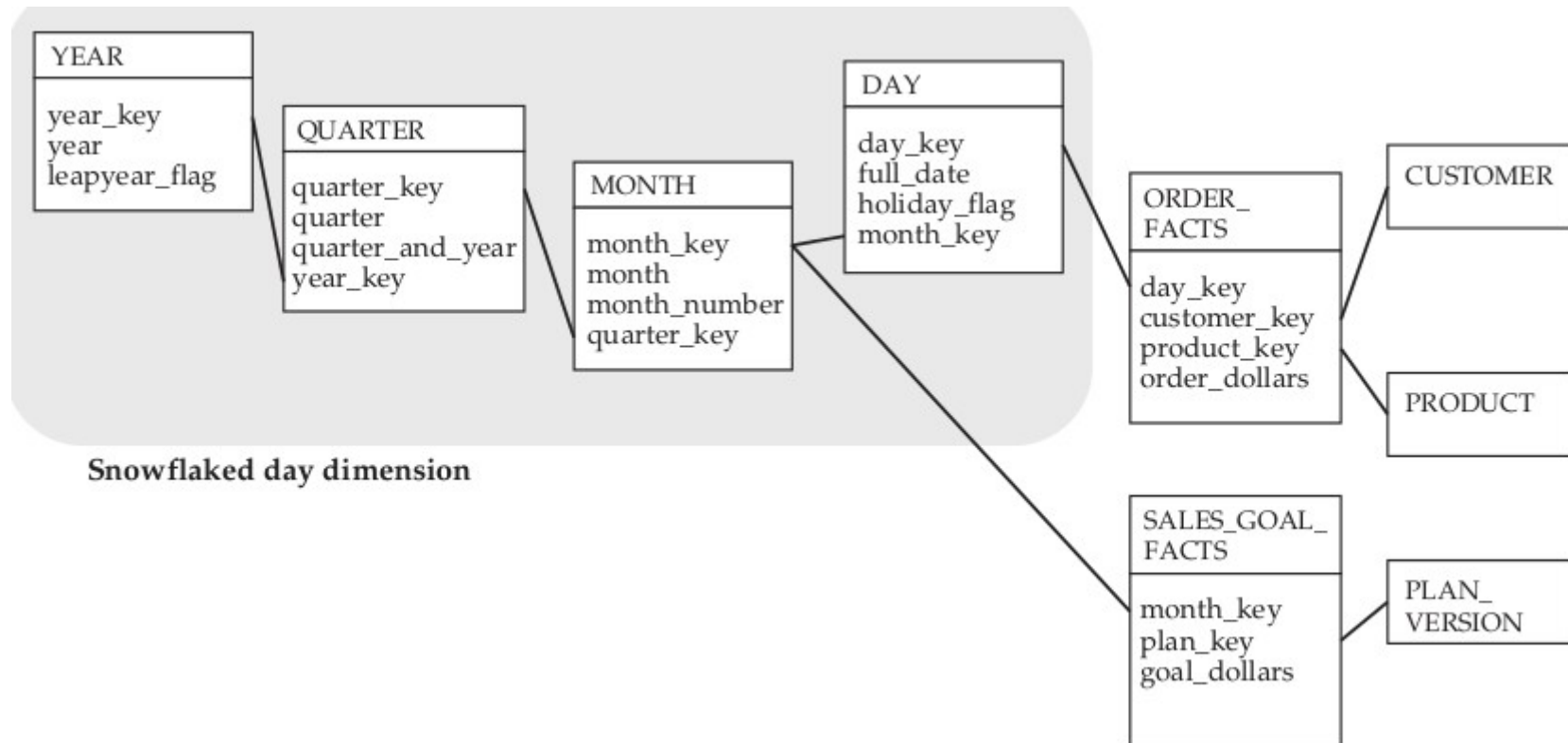
Two stars share conformed dimensions



Diseño y BI



Diseño y BI



Referencias



Adamson, C.

Star Schema - The Complete Reference.

McGraw-Hill, 2010.