Entity-relationship diagram

2026-11-19 · `examples/types/er.json`

2 views · 8 cards · 8 lines

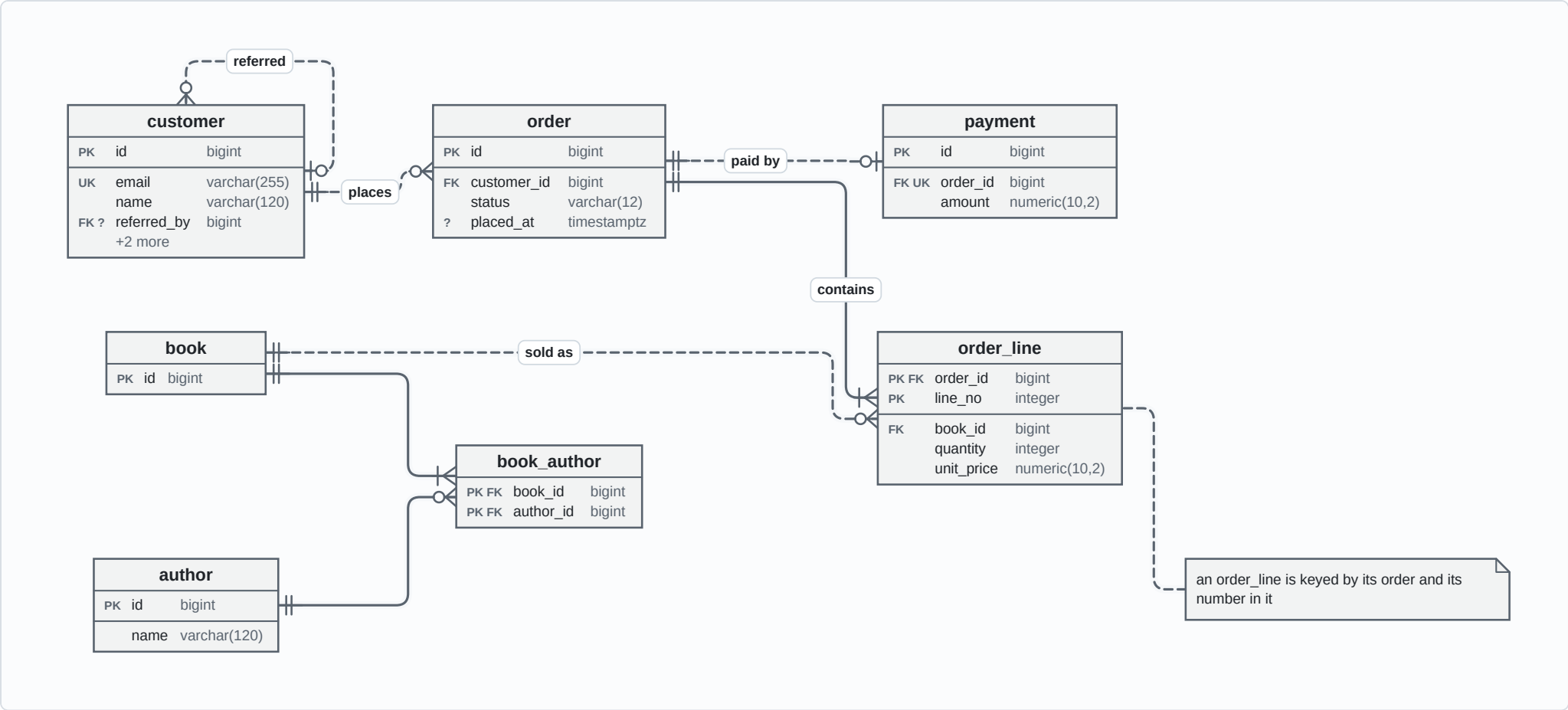
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The same database in IDEF1X 4

A bookshop's database

8 cards · 8 lines



Legend — **Identifying** the child's key holds the parent's key · ---- **Non-identifying** the child refers to the parent outside its key · —|| **Exactly one** one and only one at that end · —o| **Zero or one** at most one at that end · —< **One or more** at least one at that end · —o< **Zero or more** any number at that end · ---- **Comment link** what a comment is about

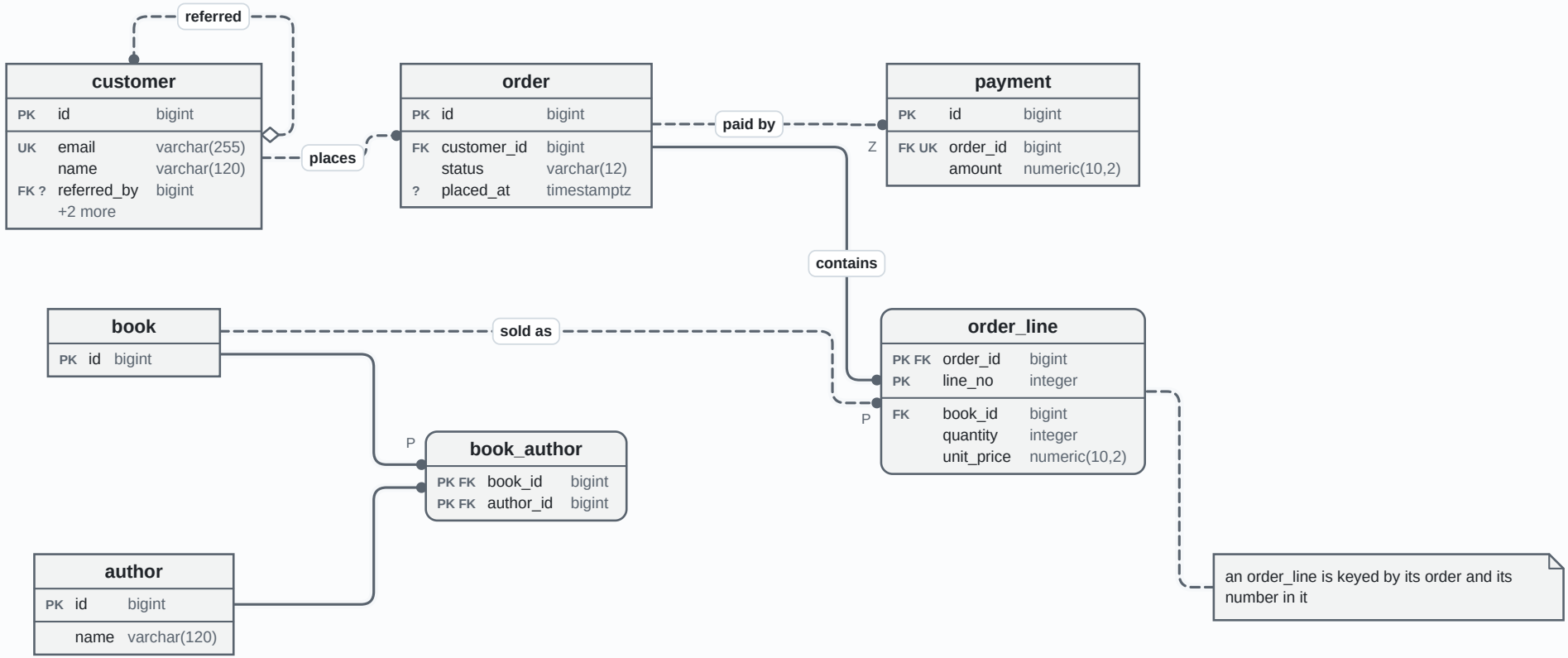
A bookshop's database (continued)

Elements 8

Card	Kind	Members
customer	Table	id bigint PK email varchar(255) UK name varchar(120) referred_by bigint FK customer.id NULL phone varchar(20) NULL created_at timestamptz
order	Table	id bigint PK customer_id bigint FK customer.id status varchar(12) placed_at timestamptz NULL
order_line	Table	order_id bigint PK FK order.id line_no integer PK book_id bigint FK book.id quantity integer unit_price numeric(10,2)
book	Table	id bigint PK isbn char(13) UK title varchar(255) price numeric(10,2)
author	Table	id bigint PK name varchar(120)
book_author	Table	book_id bigint PK FK book.id author_id bigint PK FK author.id
payment	Table	id bigint PK order_id bigint FK order.id UK amount numeric(10,2)
an order_line is keyed by its order and its number in it	Comment	

Lines 8

From → to	Label	Kind
customer → order	places: 1 to 0..*, non-identifying	Relationship
order → order_line	contains: 1 to 1..*, identifying	Relationship
book → order_line	sold as: 1 to 0..*, non-identifying	Relationship
book → book_author	1 to 1..*, identifying	Relationship
author → book_author	1 to 0..*, identifying	Relationship
order → payment	paid by: 1 to 0..1, non-identifying	Relationship
customer → customer	referred: 0..1 to 0..*, non-identifying	Relationship
an order_line is keyed by its order and its number in it → order_line		Comment link



Legend — **Identifying** the child's key holds the parent's key - - - **Non-identifying** the child refers to the parent outside its key

Child end zero or more; P one or more, Z zero or one, a number exactly that many **Optional parent** zero or one parent **Dependent entity** rounded corners: its key holds its parent's

- - - **Comment link** what a comment is about

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book	Table	id bigint PK isbn char(13) UK title varchar(255) price numeric(10,2)
author	Table	id bigint PK name varchar(120)
book_author	Table	book_id bigint PK FK book.id author_id bigint PK FK author.id
payment	Table	id bigint PK order_id bigint FK order.id UK amount numeric(10,2)
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author → book_author	1 to 0..*, identifying	Relationship
order → payment	paid by: 1 to 0..1, non-identifying	Relationship
customer → customer	referred: 0..1 to 0..*, non-identifying	Relationship
an order_line is keyed by its order and its number in it → order_line		Comment link