

A photograph of a modern conference room with large windows and a blue tint. The room features a long table, several chairs, and a laptop on the table. The word "Relationships" is overlaid in the center.

Relationships

Relationships



Relationships

Relationships

● Relationships

relationships tell you how much of the data from a foreign key field can be seen in the primary key column of the table the data is related to and vice versa

Relationships

Sales			
purchase_number	date_of_purchase	customer_id	item_code
1	9/3/2016	1	A_1
2	12/2/2016	2	C_1
3	4/15/2017	3	D_1
4	5/24/2017	1	B_2
5	5/25/2017	4	B_2
6	6/6/2017	2	B_1
7	6/10/2017	4	A_2
8	6/13/2017	3	C_1
9	7/20/2017	1	A_1
10	8/11/2017	2	B_1

Customers				
customer_id	first_name	last_name	email_address	number_of_complaints
1	John	McKinley	john.mackinley@365careers.com	0
2	Elizabeth	McFarlane	e.mcfarlane@365careers.com	2
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repeated values

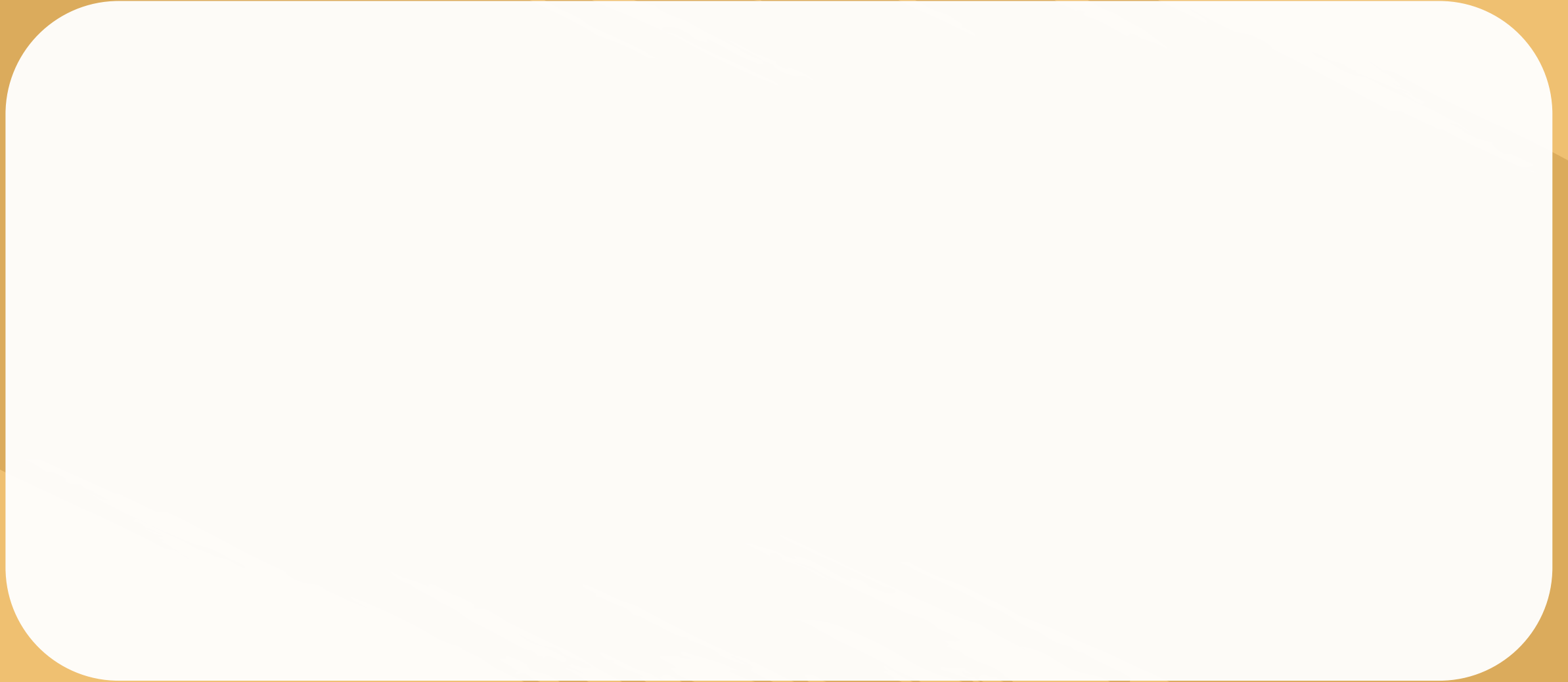
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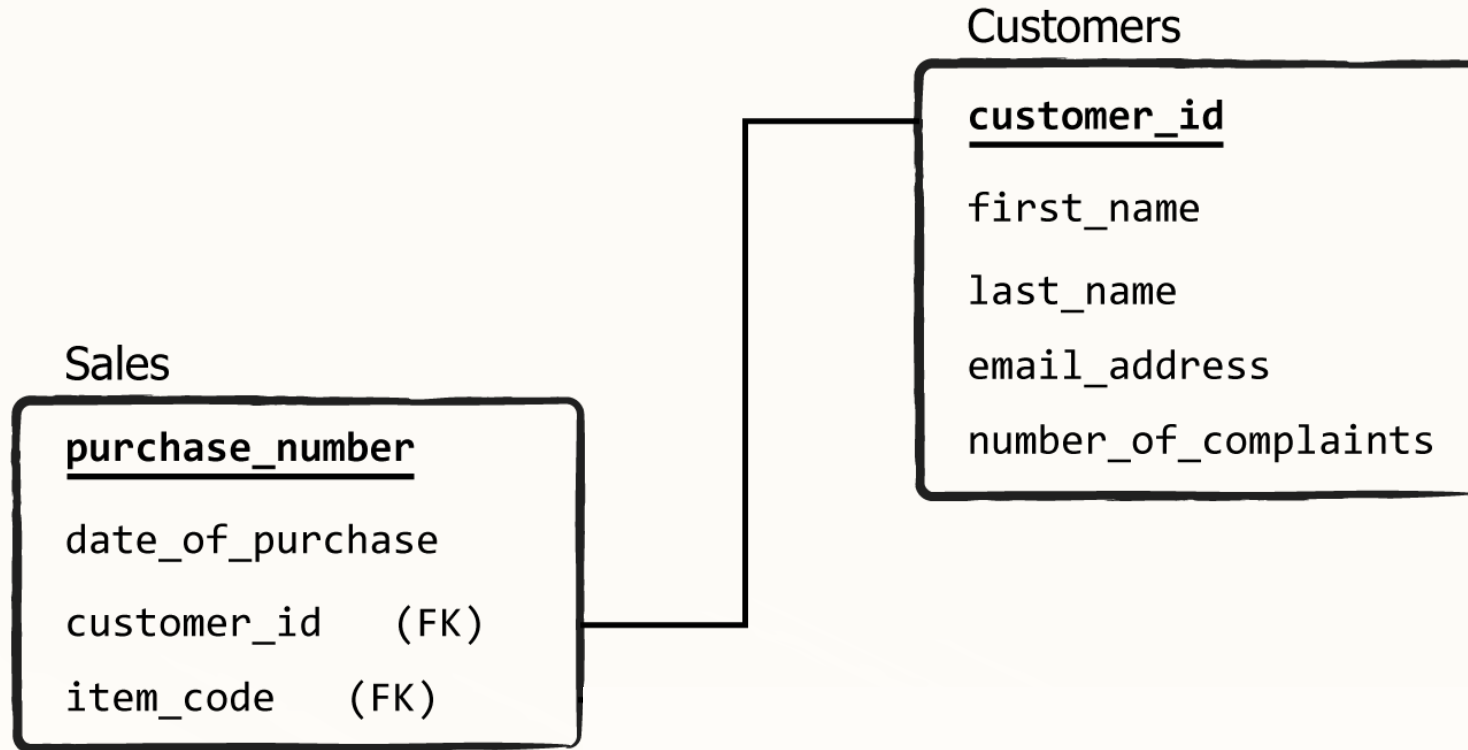
one-to-many type of relationship

one value from the *customer_id* column under the "Customers" table can be found **many** times in the *customer_id* column in the "Sales" table.

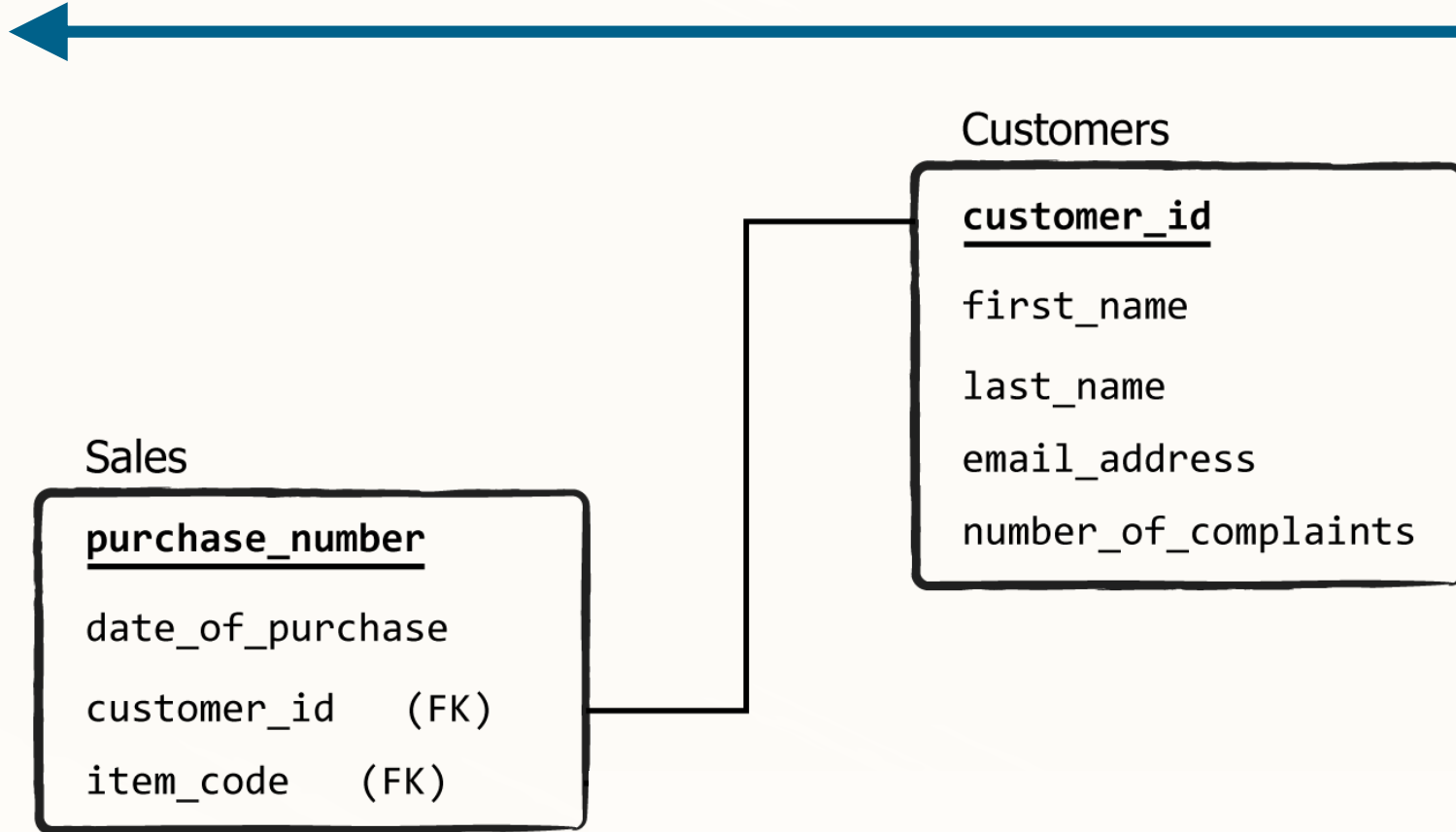
Relationships



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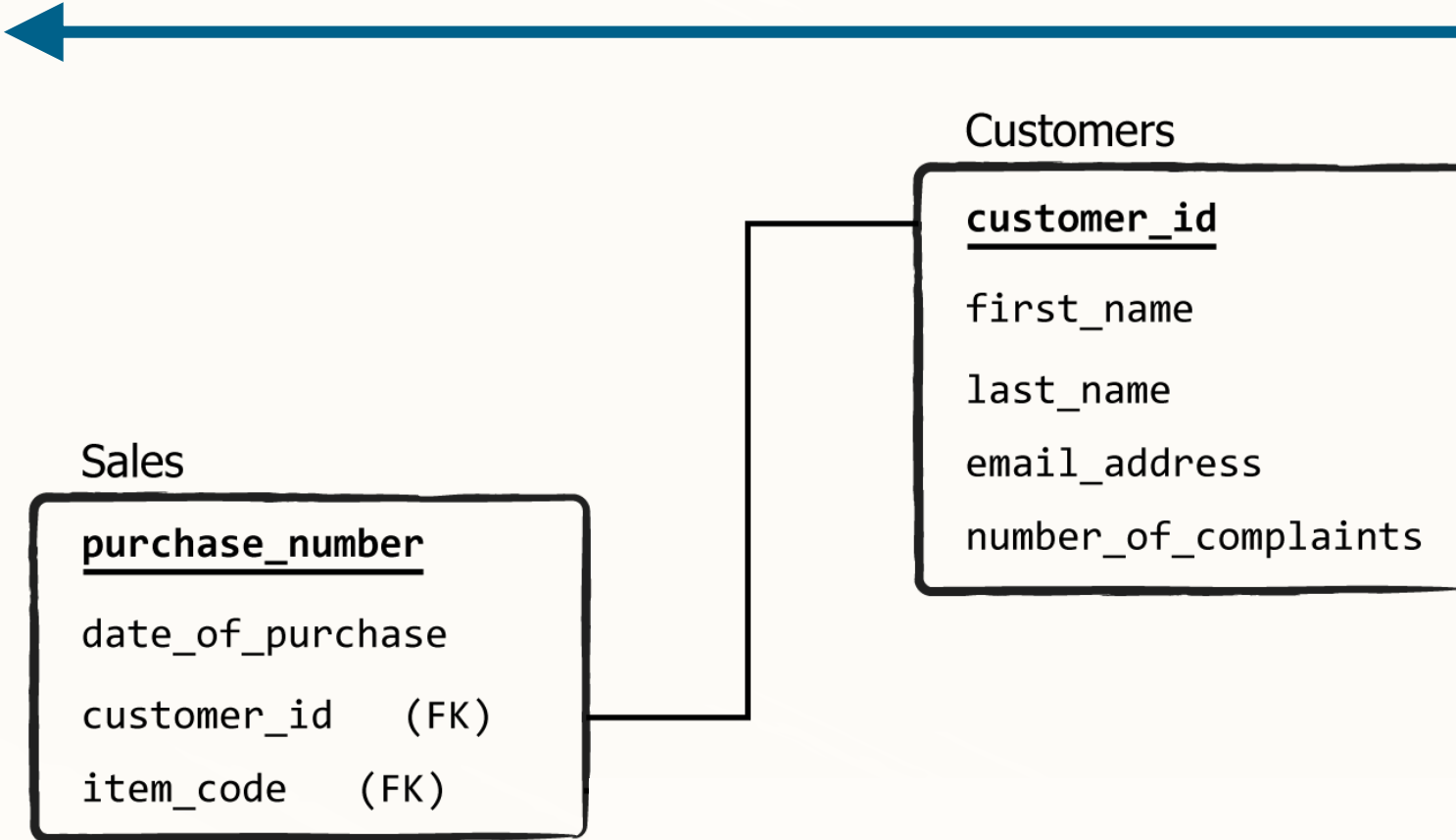


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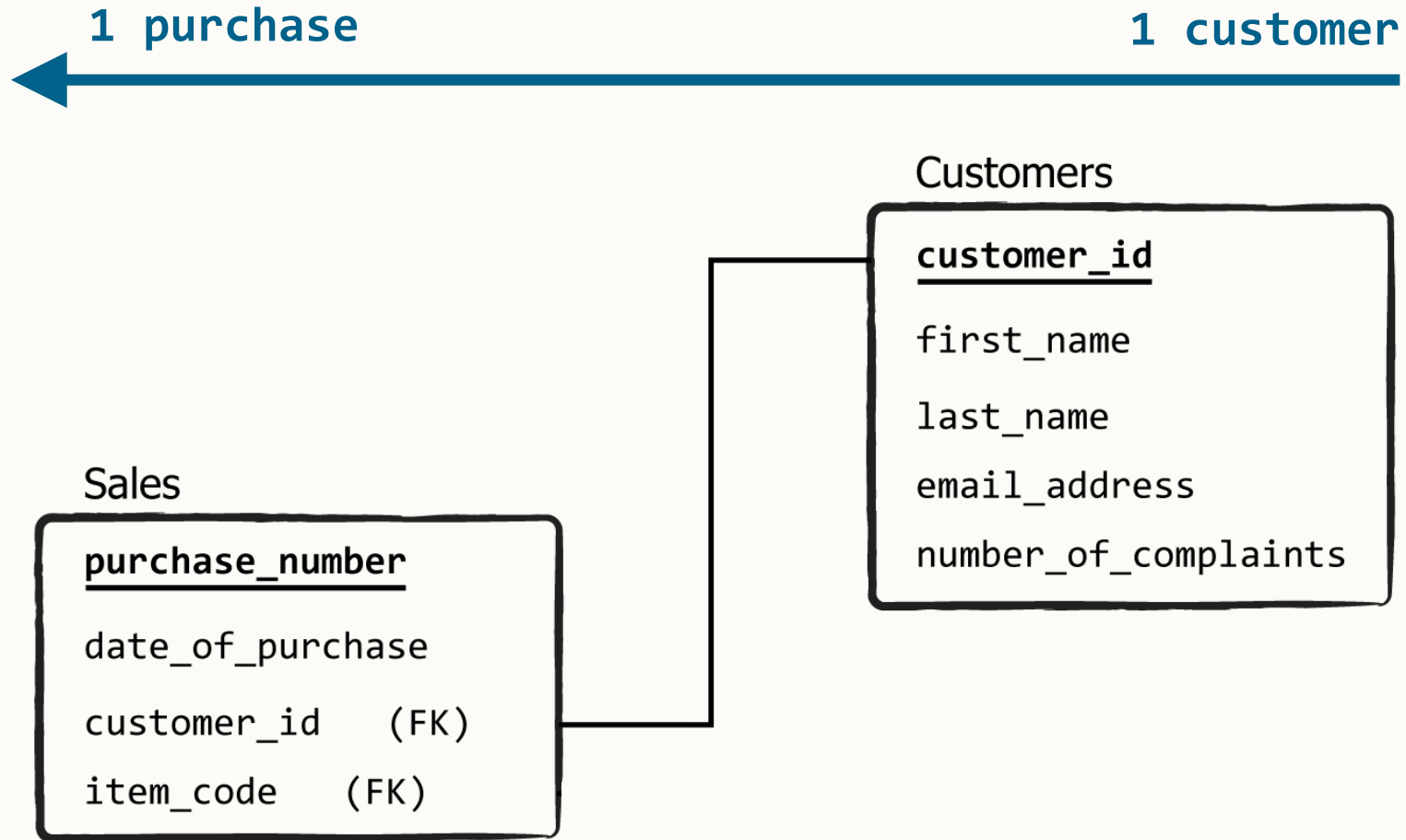


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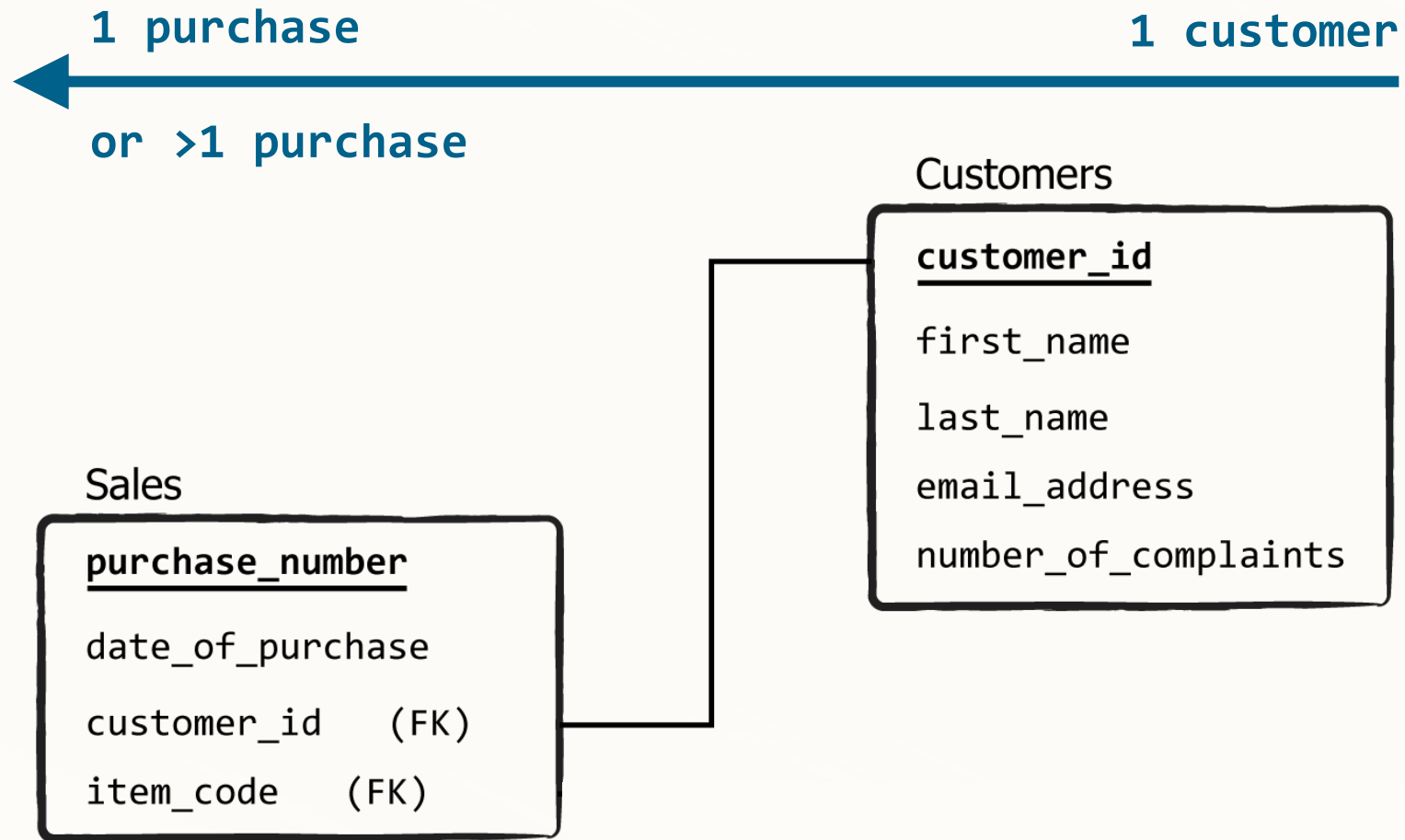
1 customer



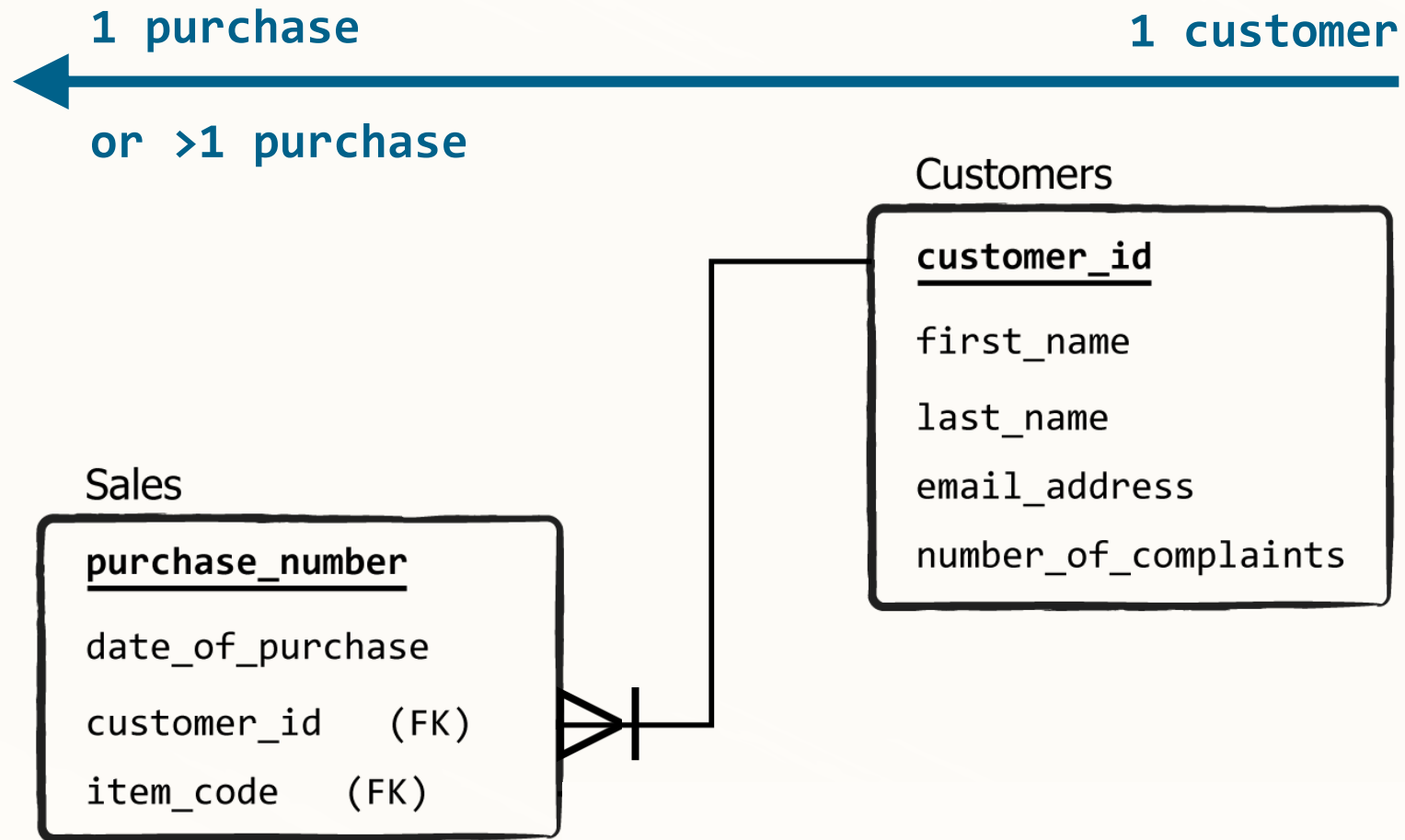
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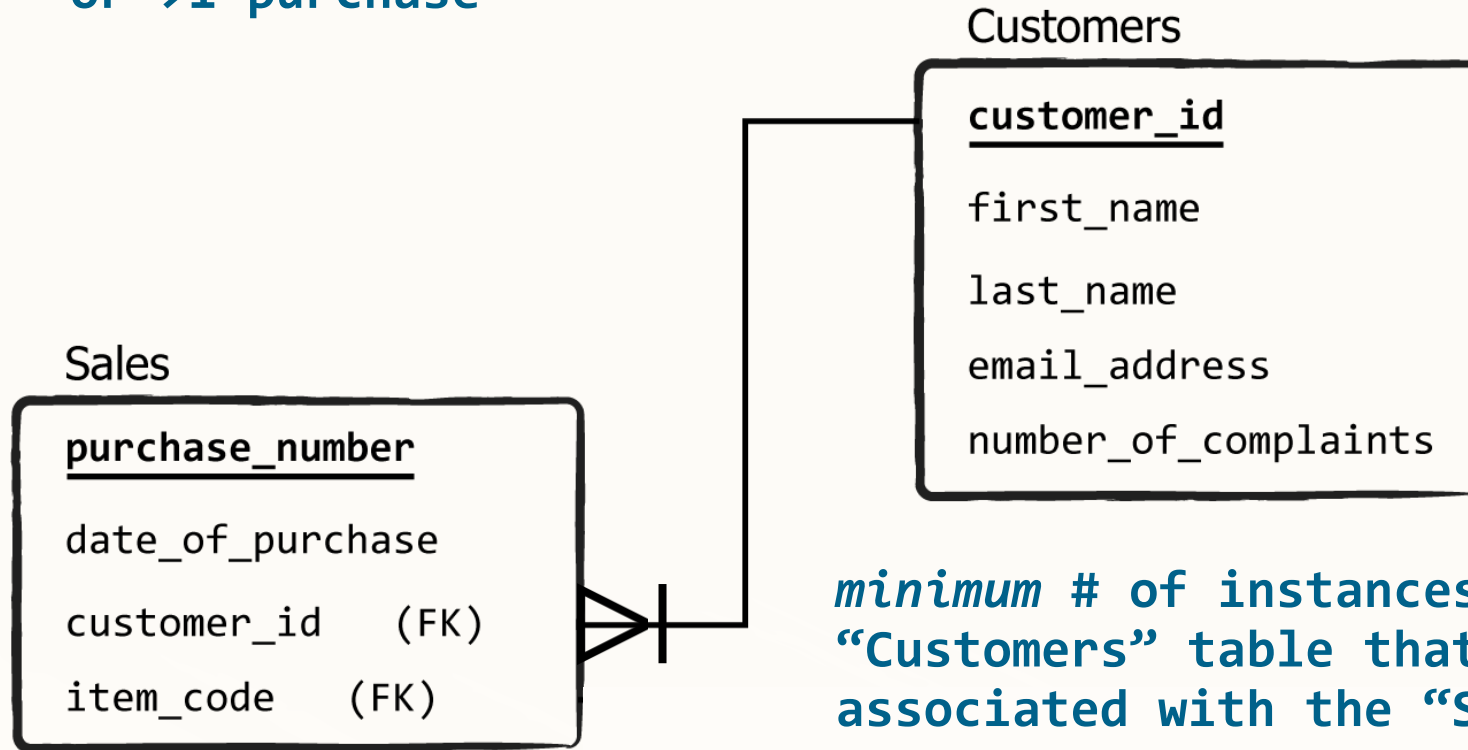
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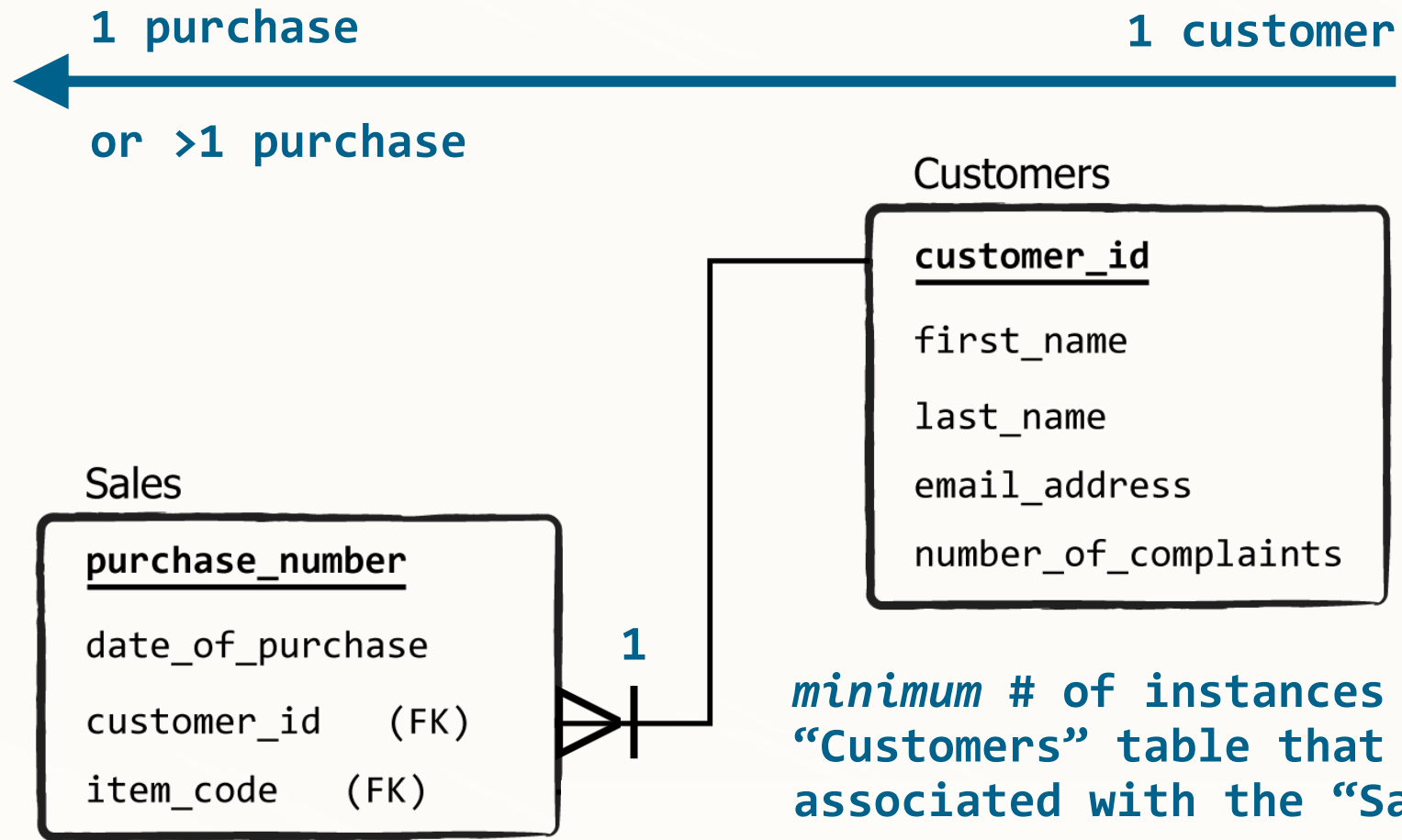


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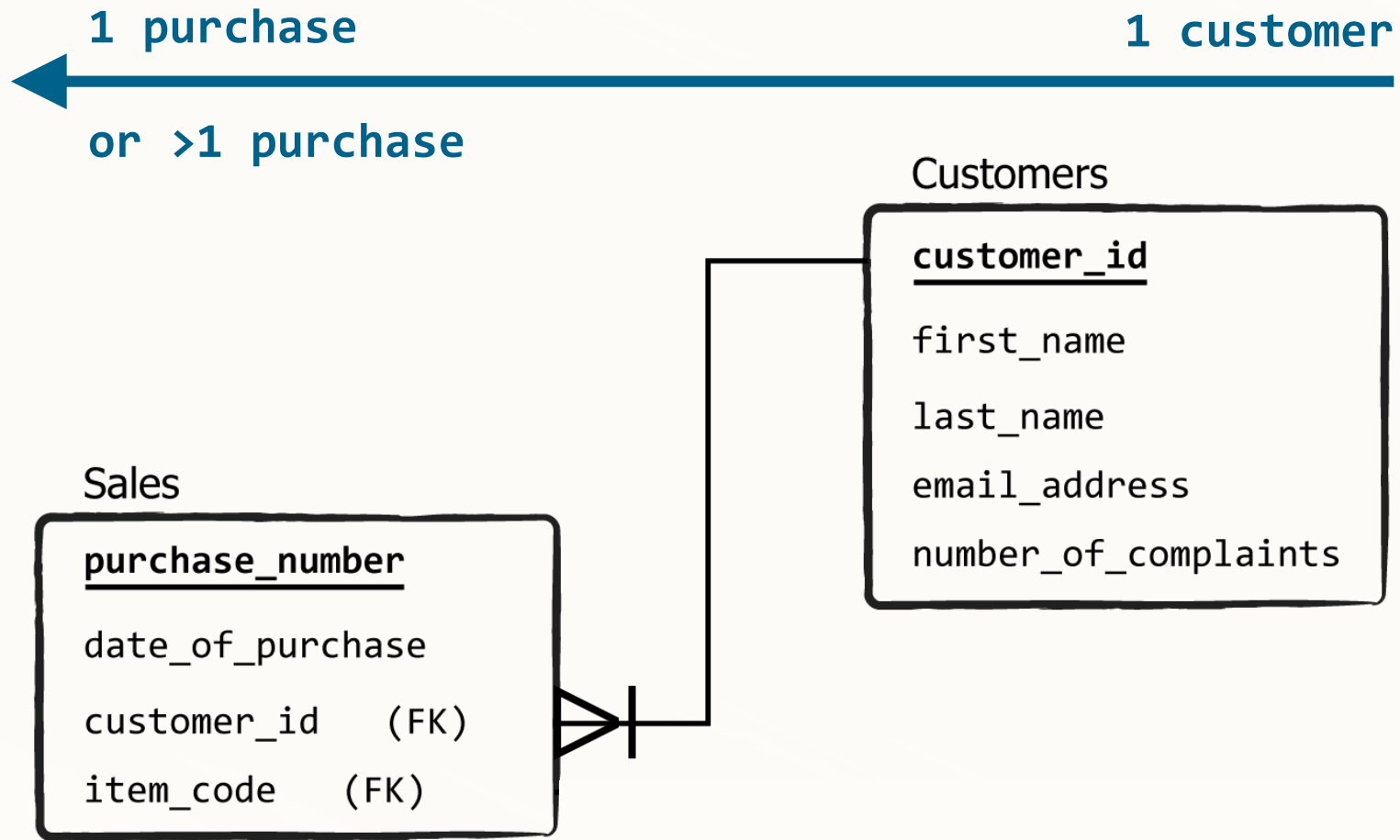


*minimum # of instances of the "Customers" table that **can be** associated with the "Sales" entity*

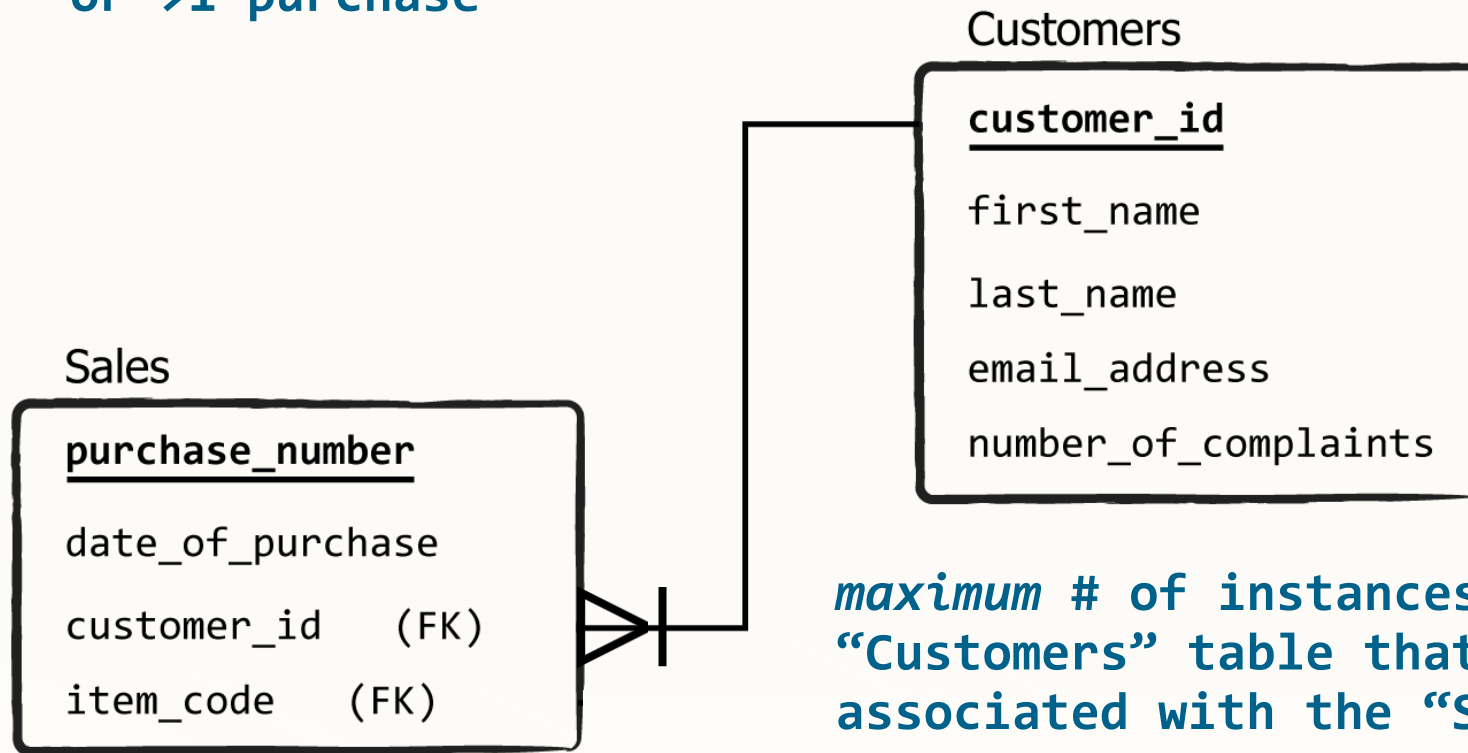
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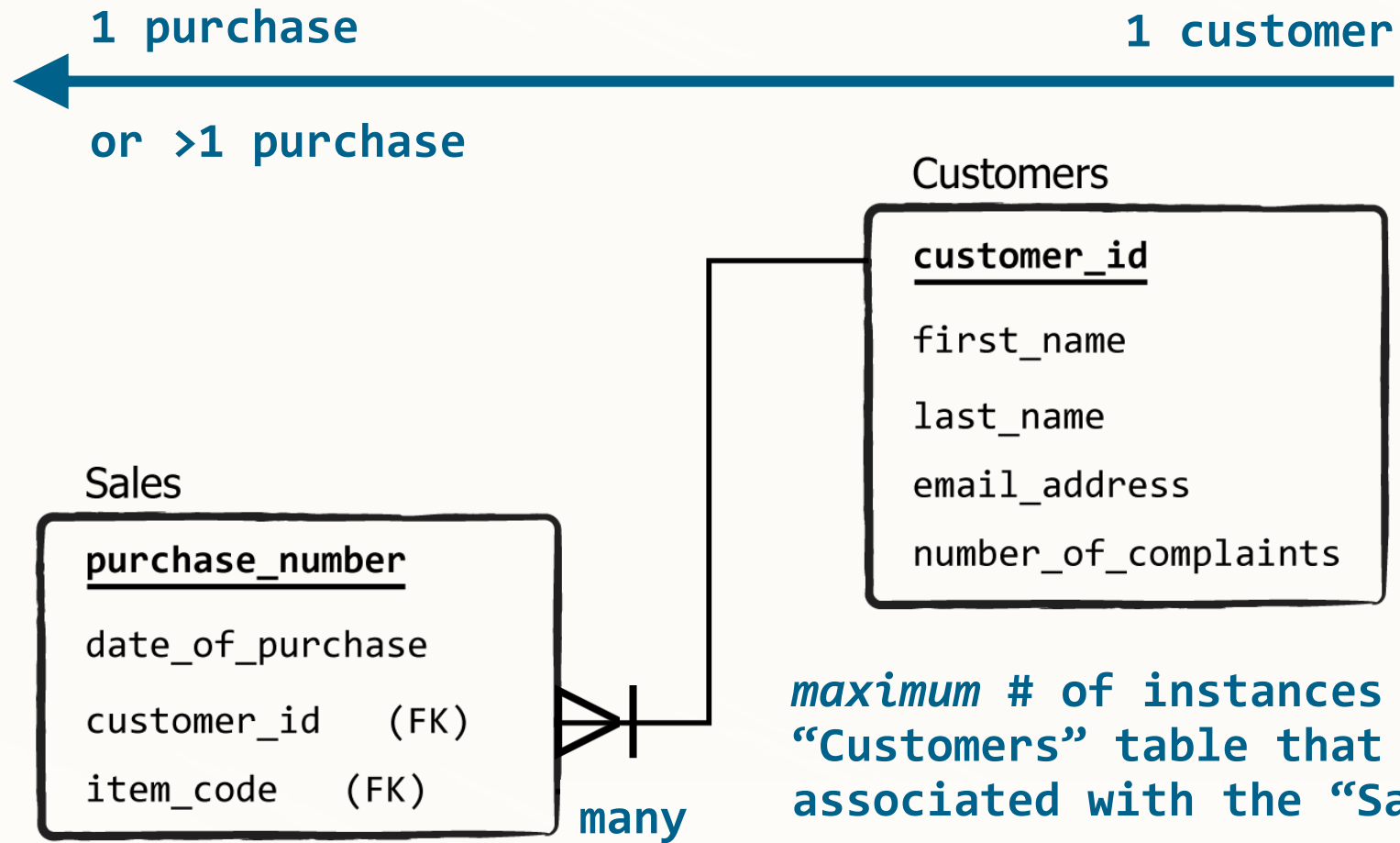


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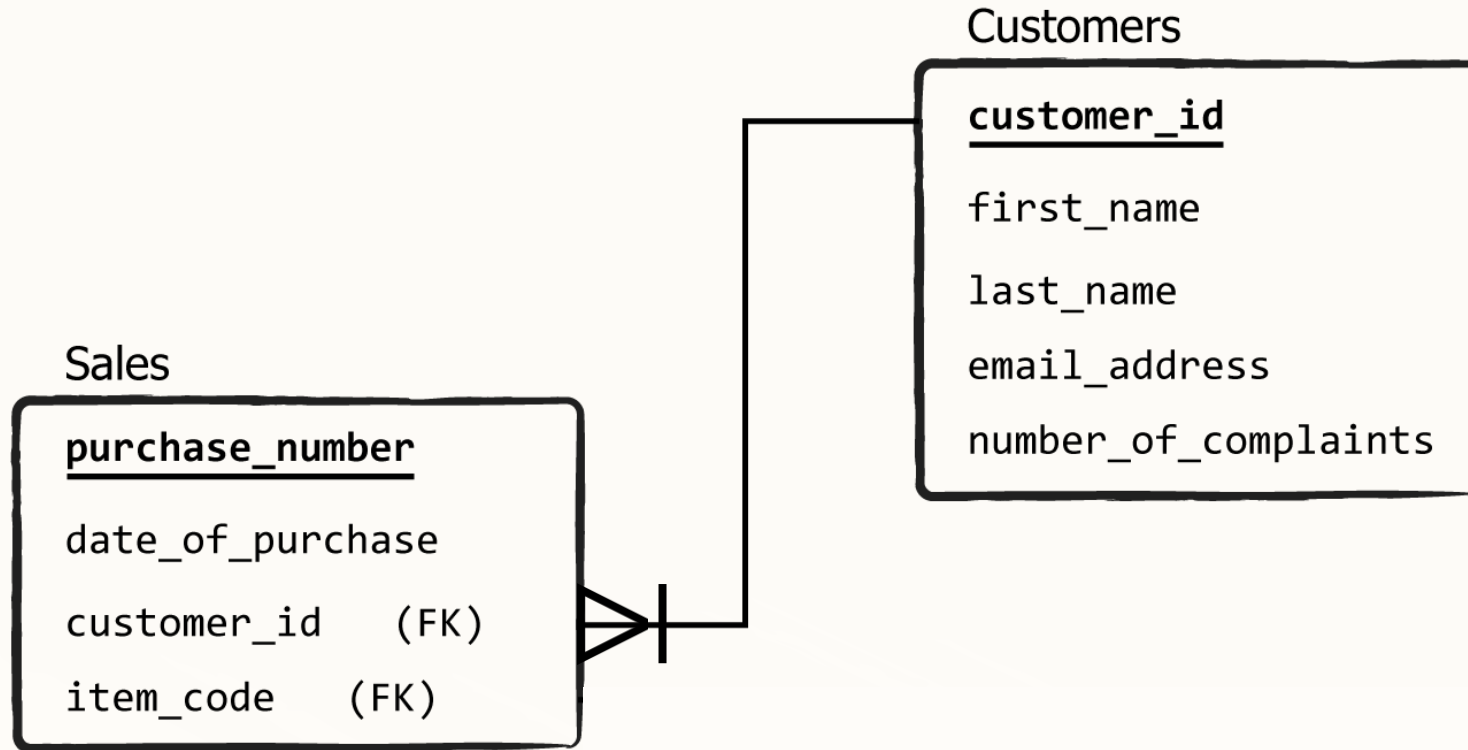
maximum # of instances of the "Customers" table that can be associated with the "Sales" entity

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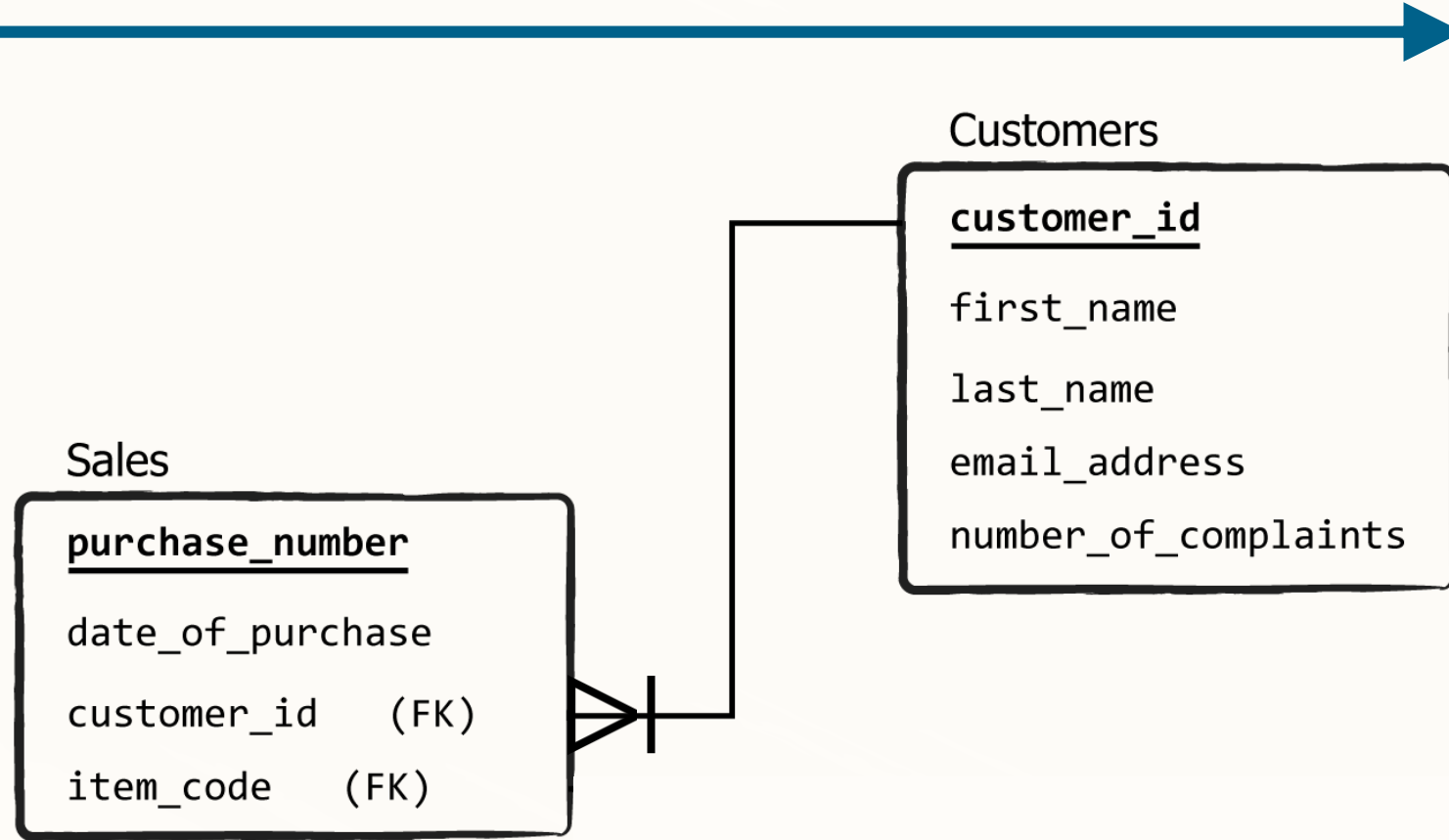


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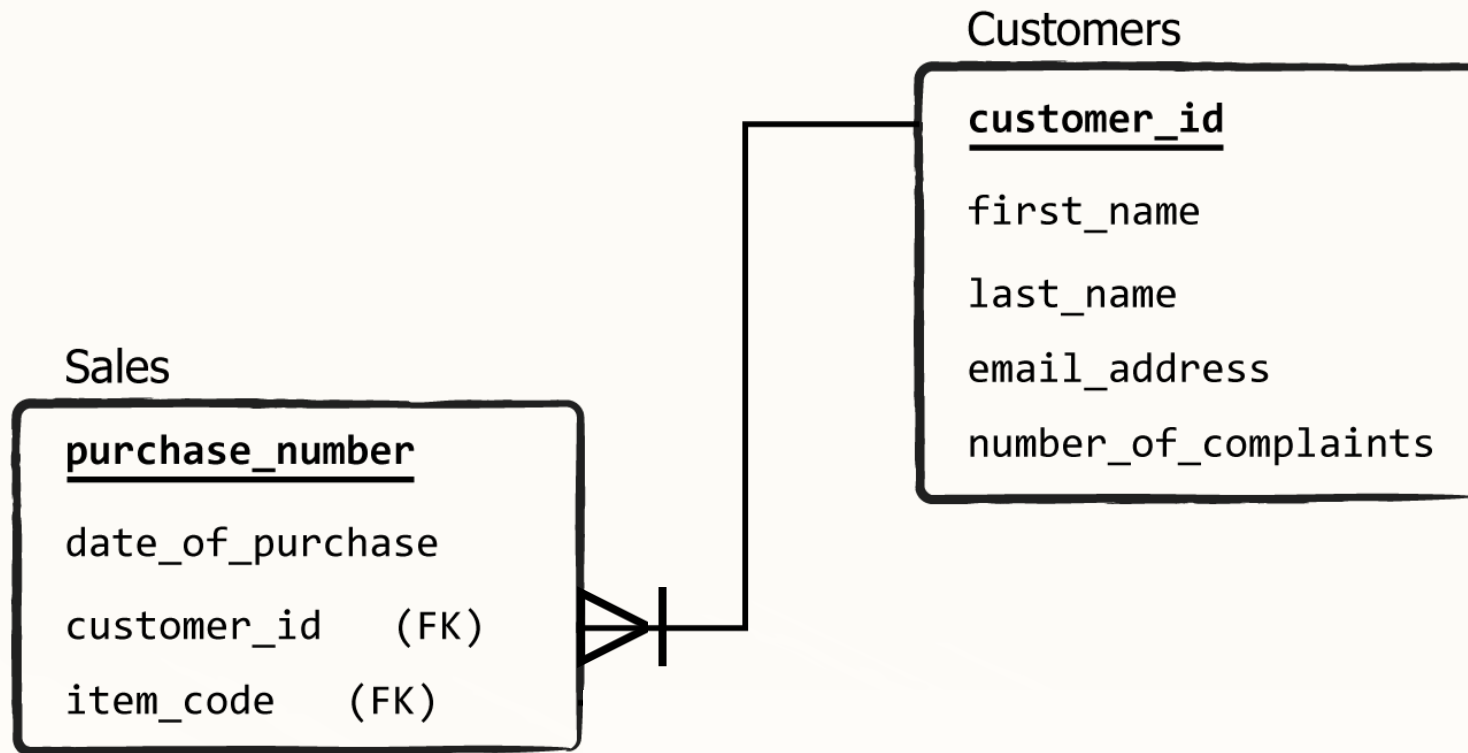


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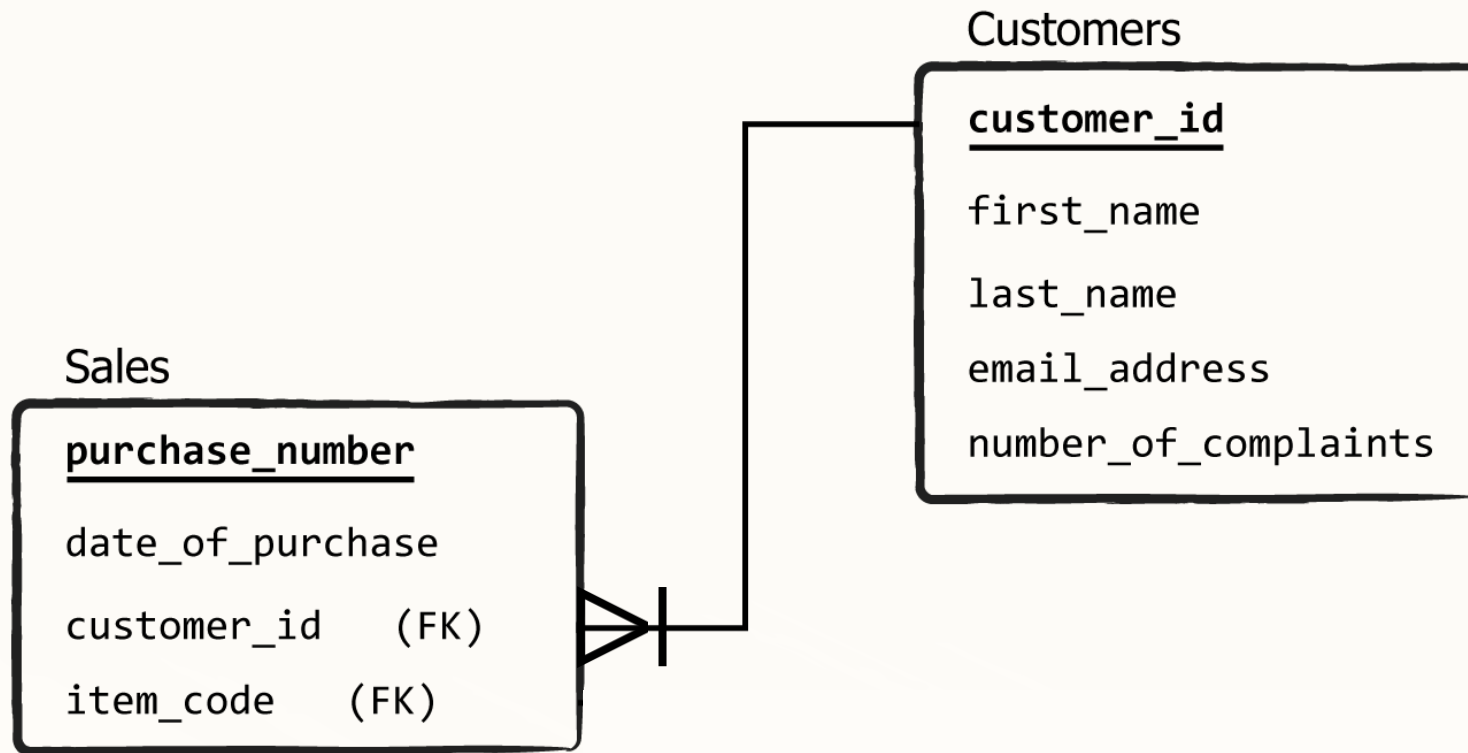
1 purchase



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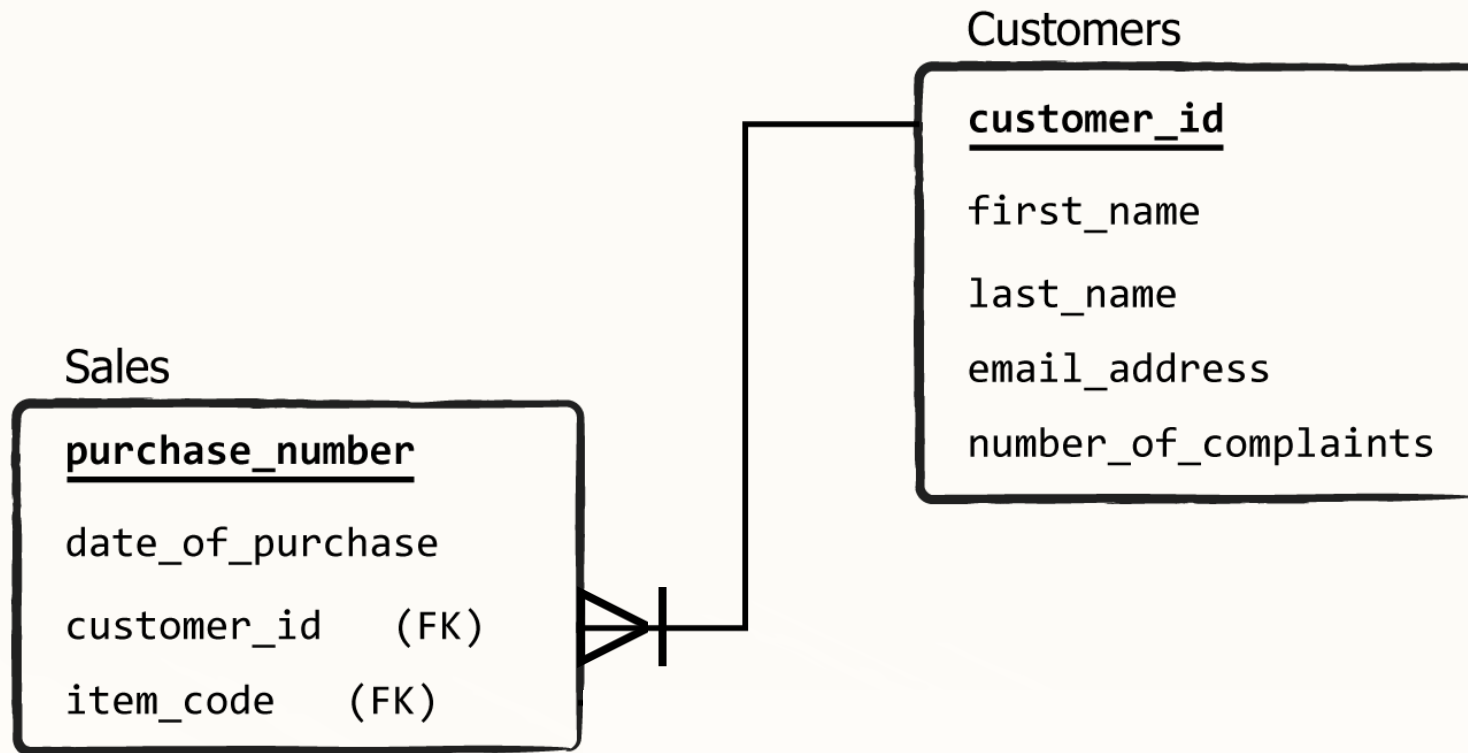
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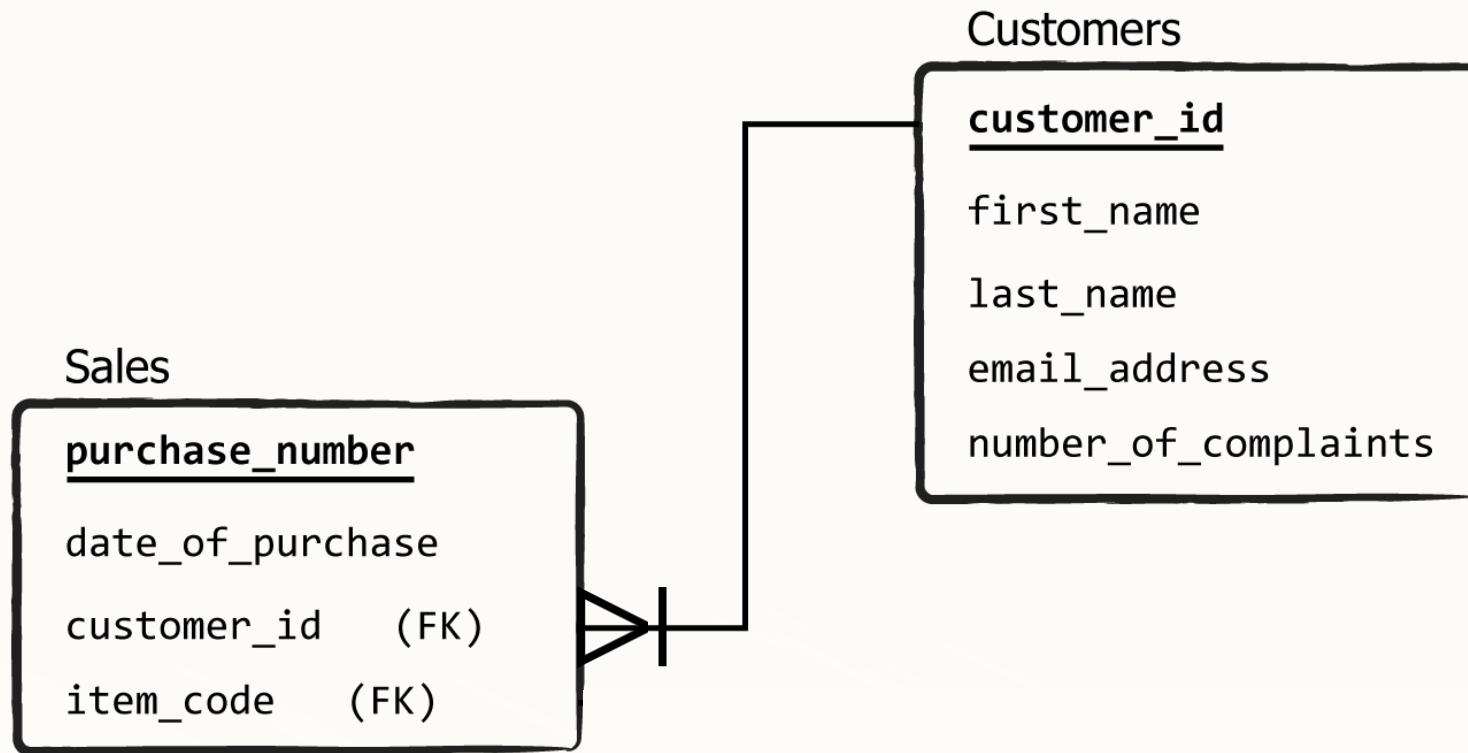
minimum = 1 customer



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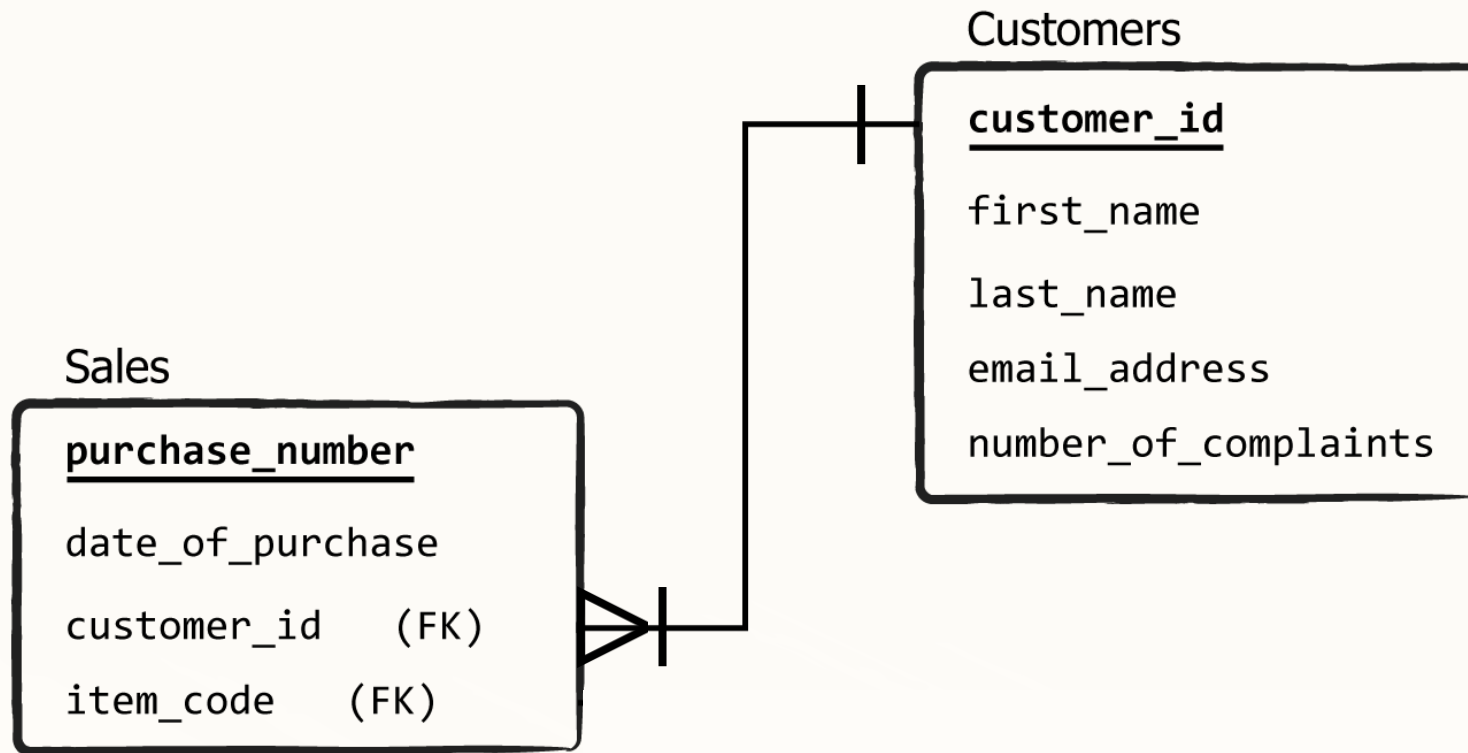
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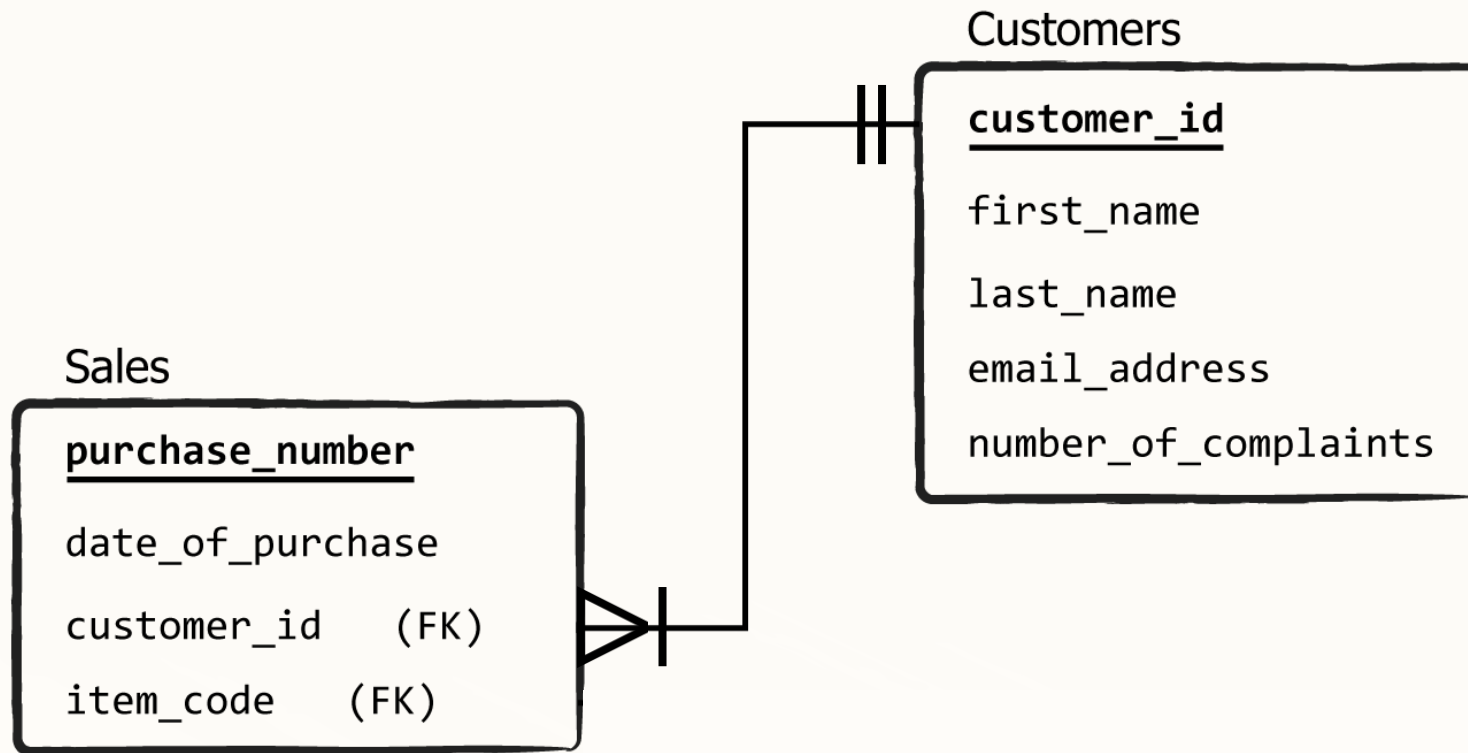
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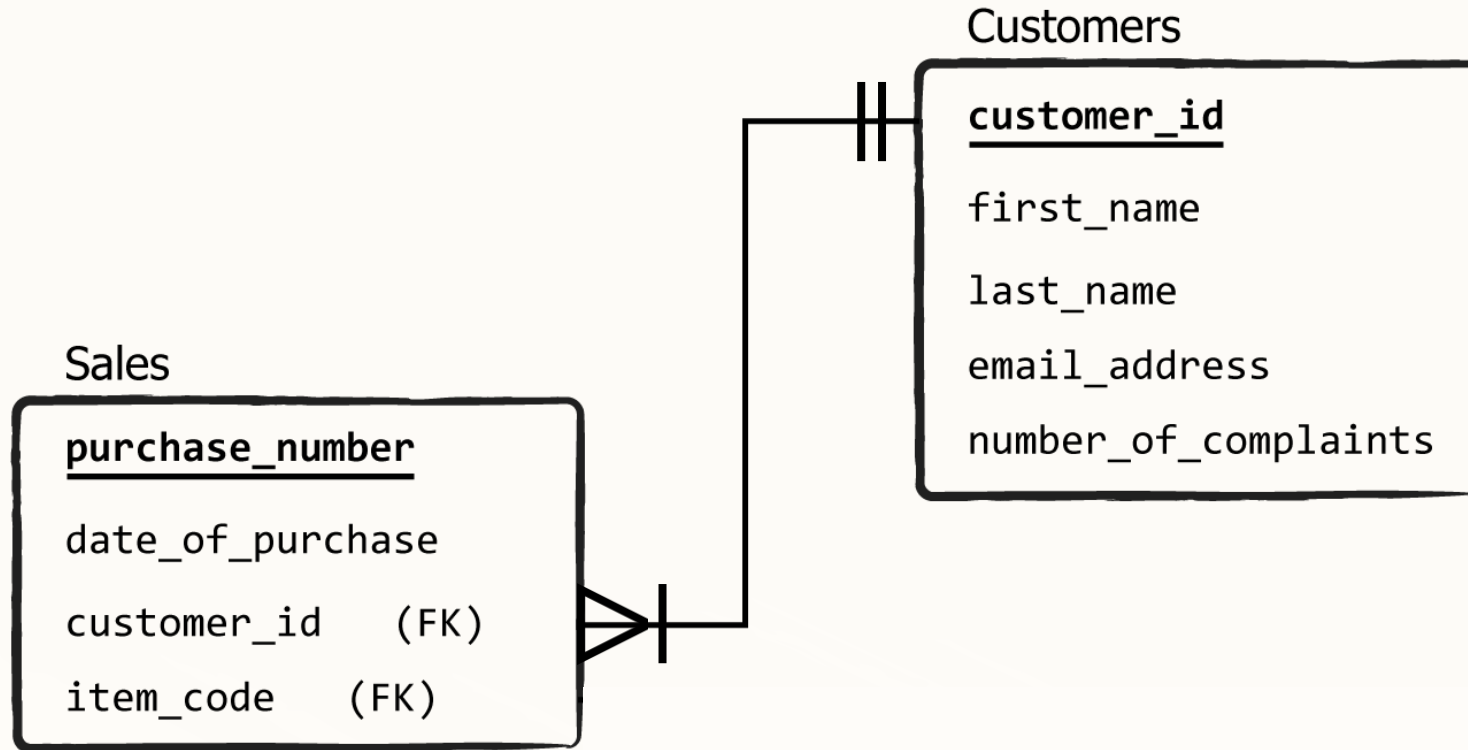
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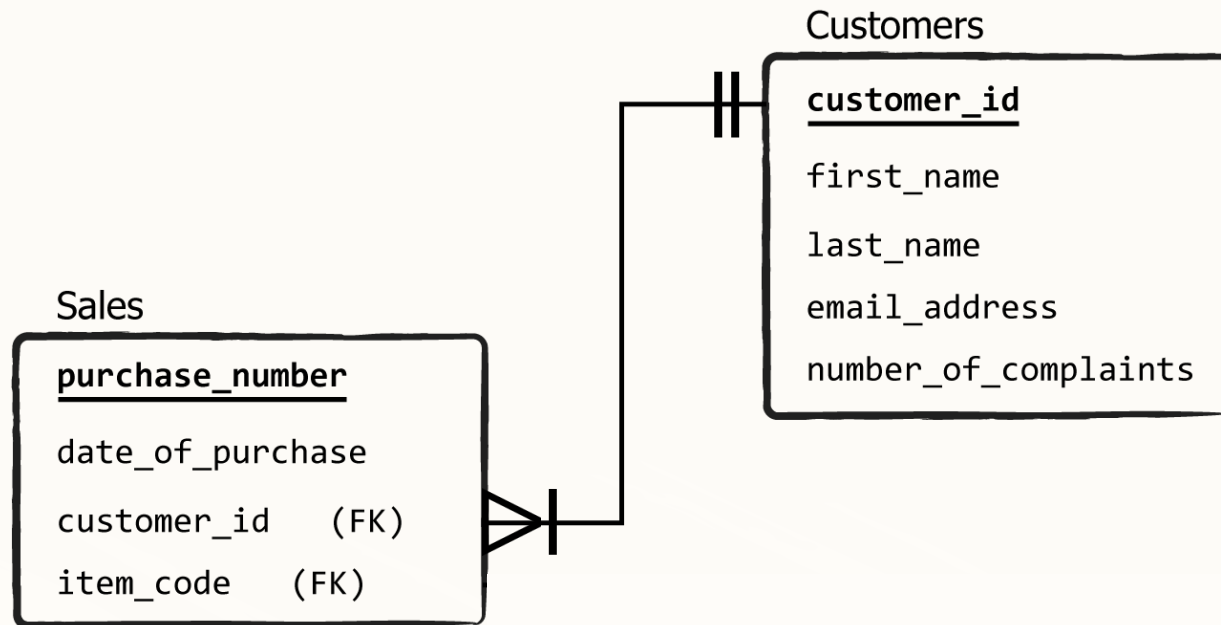
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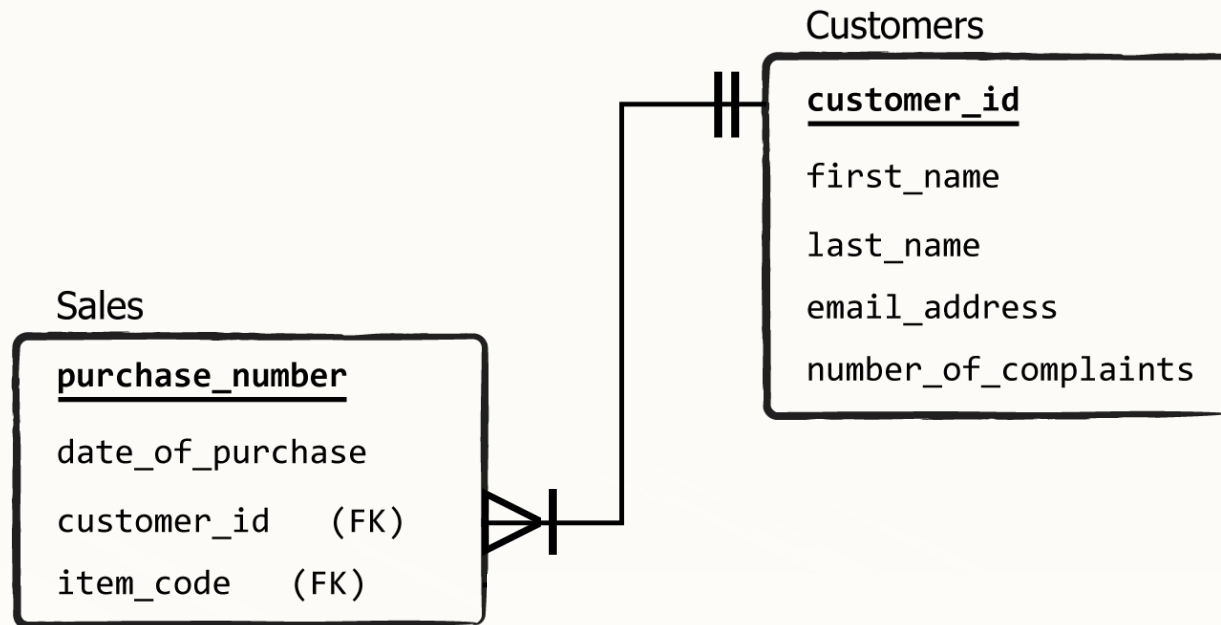


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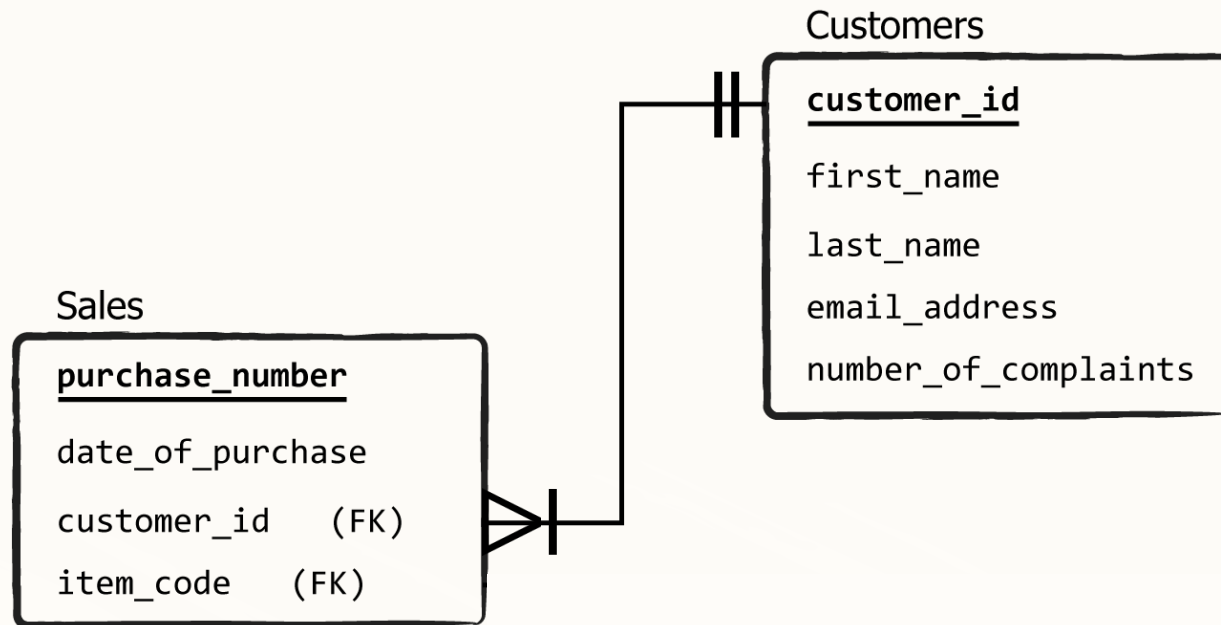
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Customers to Sales: *one-to-many*



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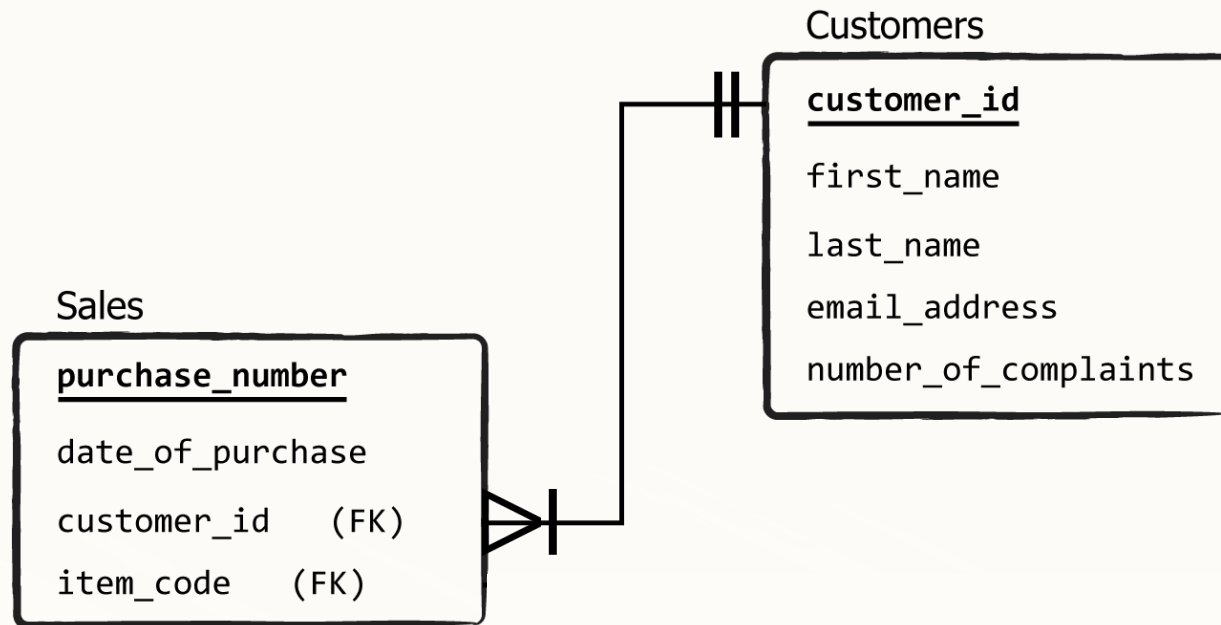
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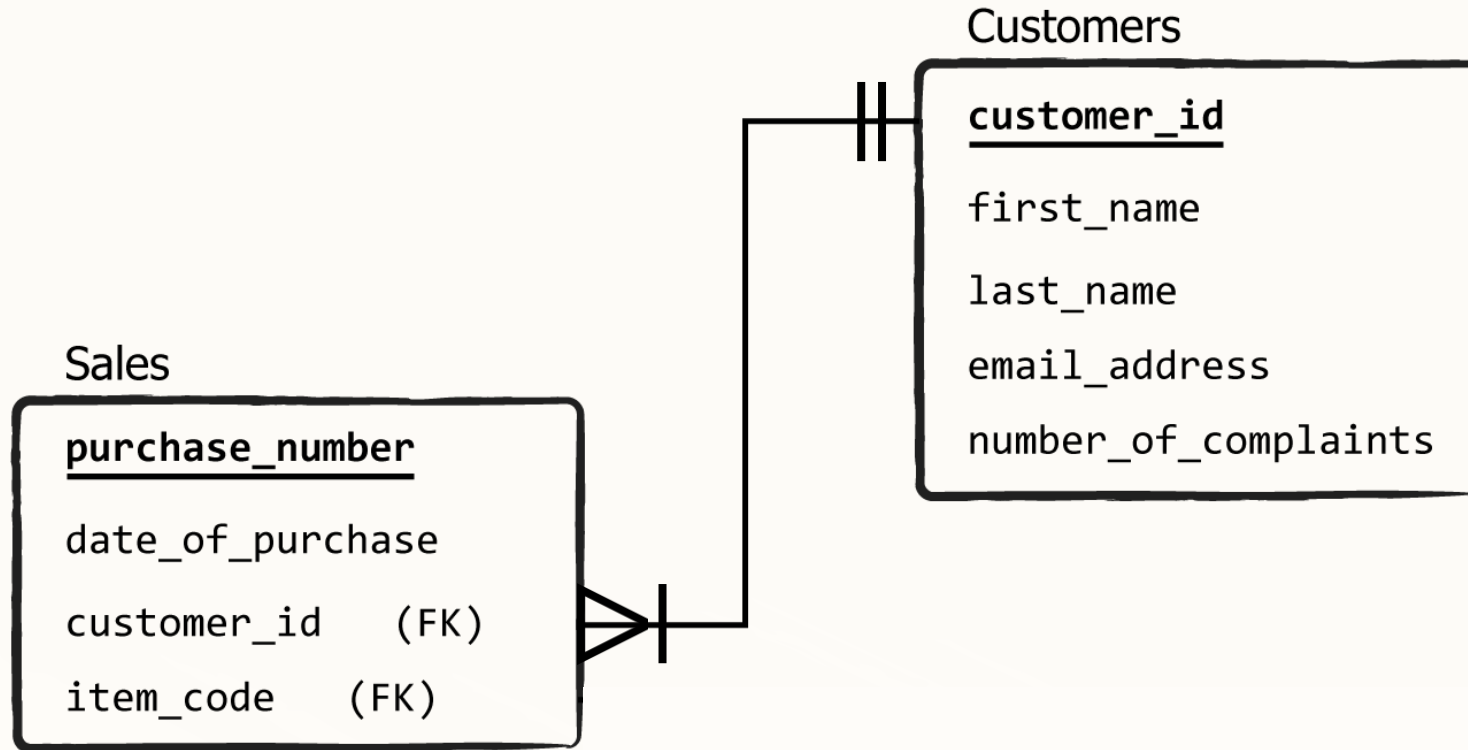
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Customers to Sales: *one-to-many*

Sales to Customers: *many-to-one*

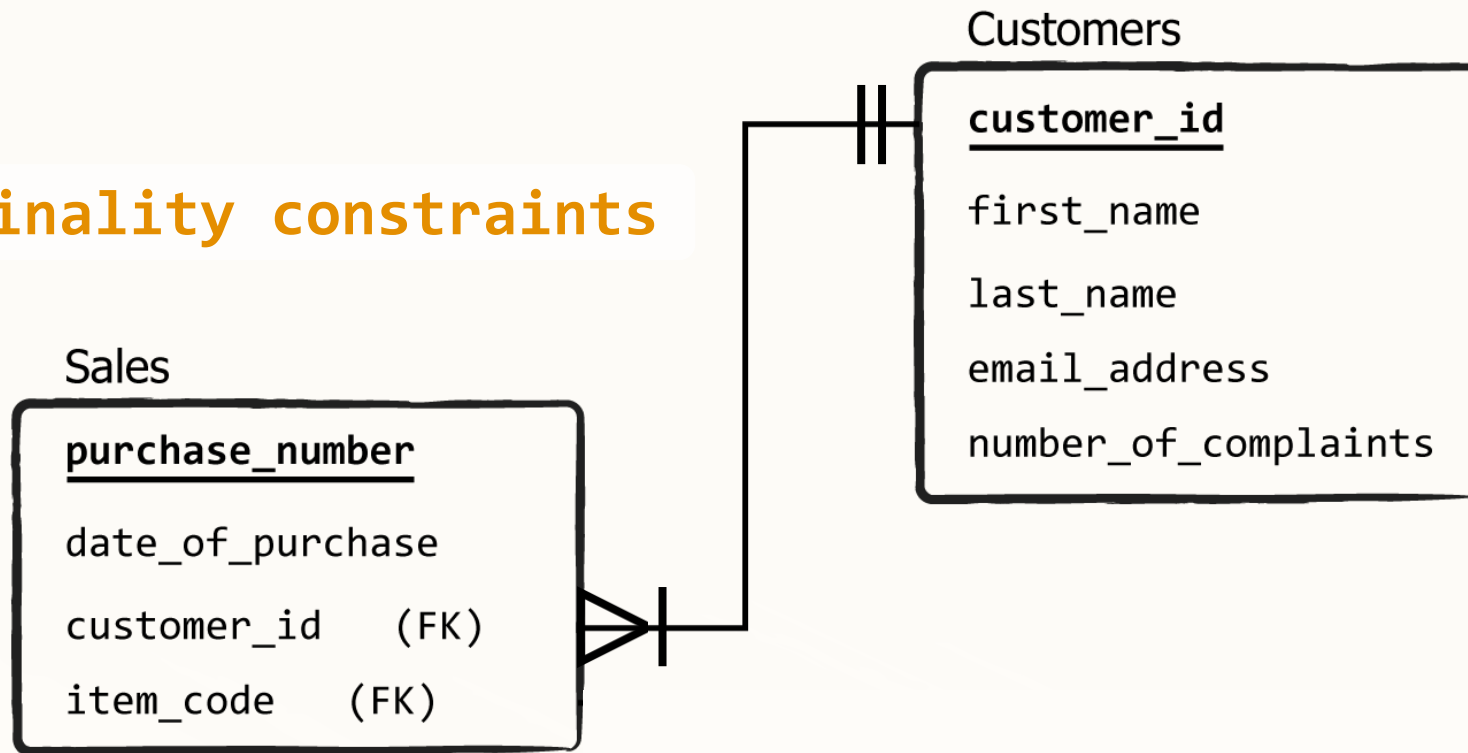


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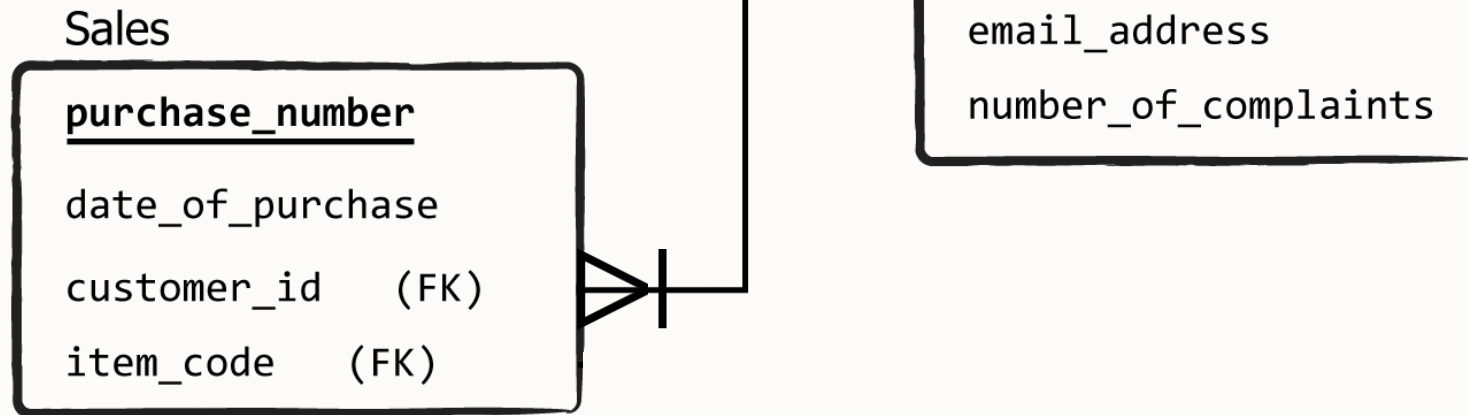
cardinality constraints



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| > M N ○

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- *will help you immensely while writing your queries!*