



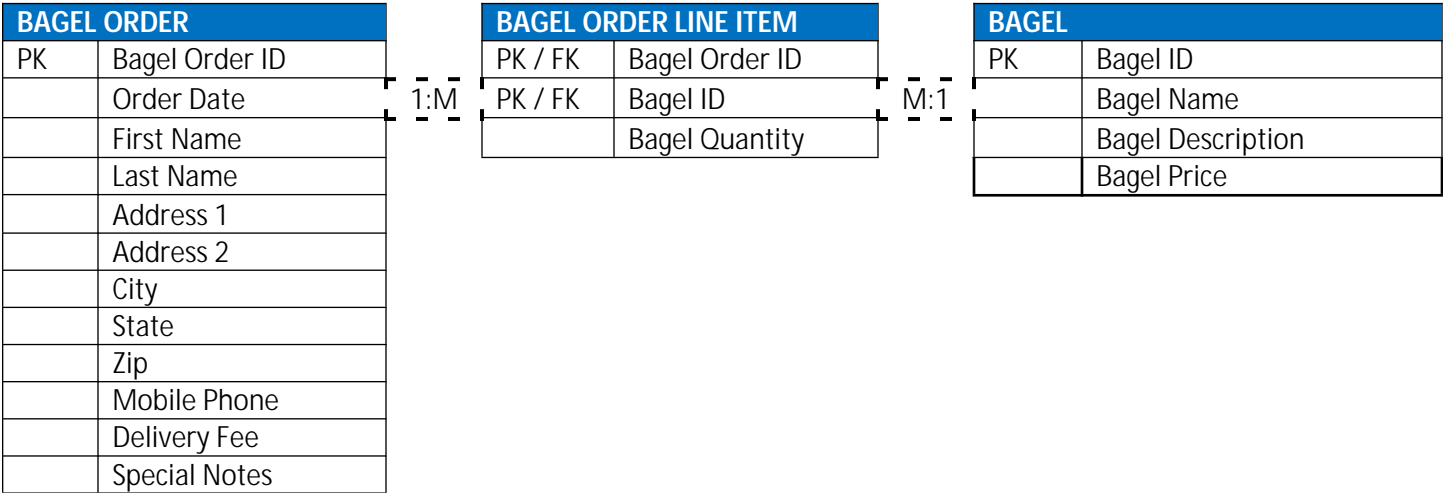
Nora’s Bagel Bin Database Blueprints

First Normal Form (1NF)

BAGEL ORDER	
PK	Bagel Order ID
PK	Bagel ID
	Order Date
	First Name
	Last Name
	Address 1
	Address 2
	City
	State
	Zip
	Mobile Phone
	Delivery Fee
	Bagel Name
	Bagel Description
	Bagel Price
	Bagel Quantity
	Special Notes

Nora’s Bagel Bin Database Blueprints *(continued)*

Second Normal Form (2NF)



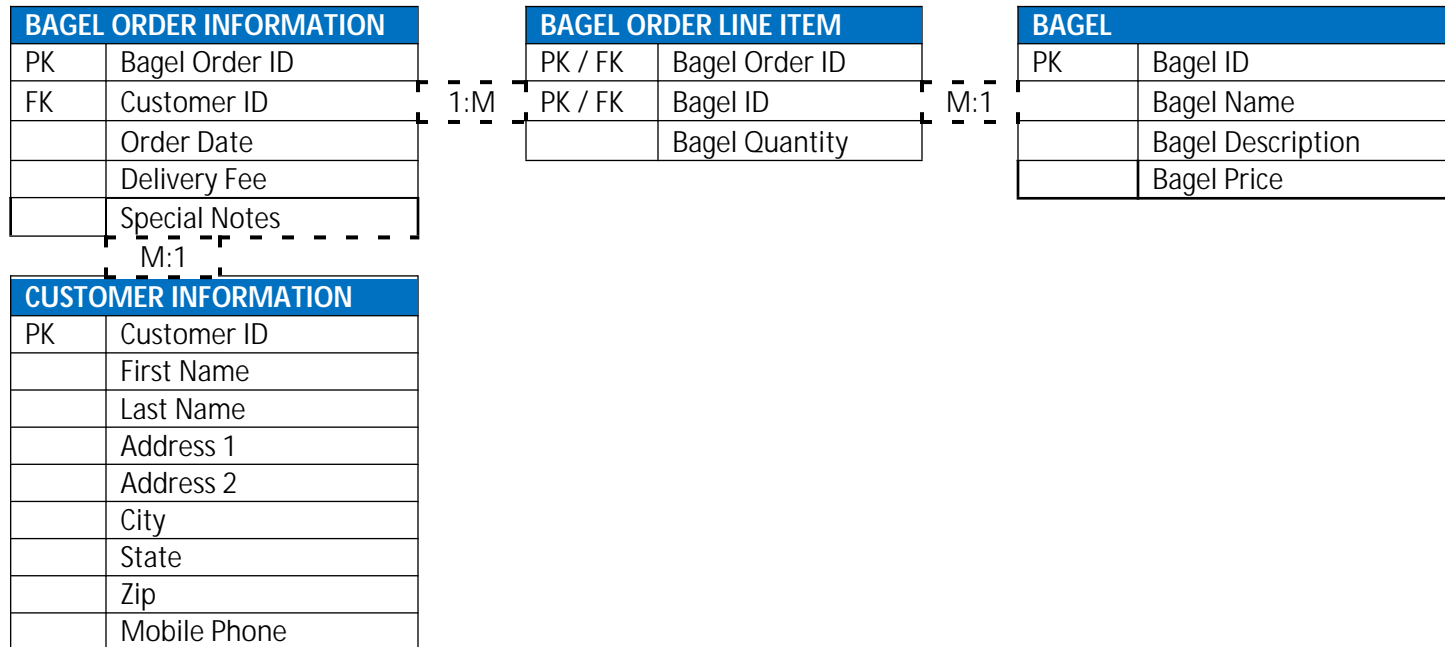
The relationship between Bagel Order and Bagel Order Line Item is 1:M. Each order can have many line items, and each line item belongs to one order

The relationship between Bagel Order Line Item and Bagel is M:1. There can be many line items, but each bagel can reference at most one line item

The Bagel Order table contains information about the order, including order specific details and customer information. The Bagel table contains specific information about the bagels themselves. The Bagel Order Line Item table contains the intersection data of these two tables.

Nora's Bagel Bin Database Blueprints *(continued)*

Third Normal Form (3NF)



The relationship between Bagel Order Form and Customer Information is M:1. Each order form contains information for one customer, and a customer can make multiple orders

The relationship between Bagel Order and Bagel Order Line Item is 1:M. Each order can have many line items, and each line item belongs to one order

The relationship between Bagel Order Line Item and Bagel is M:1. There can be many line items, but each bagel can reference at most one line item

I split the Bagel Order table into two tables, the Bagel Order Information table and the Customer Information table. Inside the Bagel Order Information table is specific information about the order itself. The Customer Information table contains data on the customer. The Bagel Order Line Item and Bagel tables remain unchanged.

Nora’s Bagel Bin Database Blueprints *(continued)*

Final Physical Database Model

BAGEL ORDER INFORMATION		
PK	bagel_order_id	INT
FK	customer_id	INT
	order_date	TIMESTAMP
	delivery_fee	NUMERIC(2,2)
	special_notes	VARCHAR(100)

M:1

CUSTOMER INFORMATION		
PK	customer_id	INT
	first_name	VARCHAR(20)
	last_name	VARCHAR(30)
	address_1	VARCHAR(30)
	address_2	INT
	city	VARCHAR(20)
	state	CHAR(2)
	zip	INT
	mobile_phone	NUMERIC(10)

BAGEL ORDER LINE ITEM		
PK / FK	bagel_order_id	INT
PK / FK	bagel_id	CHAR(2)
	bagel_quantity	NUMERIC(3)

M:1

BAGEL		
PK	bagel_id	CHAR(2)
	bagel_name	VARCHAR(20)
	bagel_description	VARCHAR(40)
	bagel_price	NUMERIC(2,2)