

## Assignment 1: Logical Data Model For A Small Bookstore

By: Brigitte Yan

### Question 1

This bookstore data model makes the following simplifications:

- Both online and in-store sales involve only a single product SKU. In other words, customer
- In-store sales do not record customer addresses or phone numbers, as doing so would create
- Online sales, however, record customer information such as address, phone number, etc.

### Question 2

Data Model with added table for employee shifts:

### Question 3

Retaining customer addresses, especially in Type 2, has privacy implications:

- Historical addresses remain in the system even after updates, potentially violating data m
- More stored addresses mean more sensitive data at risk in a breach, which could be exploit
- Retaining old addresses may require explicit consent, and companies must ensure compliance

Type 1 (overwrite) reduces exposure by only storing the current address but limits tracking

### Type 1 Architecture

In this customer\_address table, the a customer's address is overwritten when it's updated, a

### Type 2 Architecture

In this customer\_address table, new addresses are added and old address are not erased. Inst

### Question 4

Review the AdventureWorks Schema [here](#)

Highlight at least two differences between it and your ERD. Would you change anything in yours?

Observations of the AdventureWorks Schema:

- There are significantly more tables, and they are organized by department
- Columns may act as both foreign and primary key
- Unsure what U1, U2, etc... mean
- The one-headed arrows seem ambiguous; are they all 1-many?
- Not sure why some table columns are bolded, even though they're not indicated as PK, FK, c

Things I would change about my ERD based on observations of the AdventureWorks ERD:

## Small Bookstore ERD

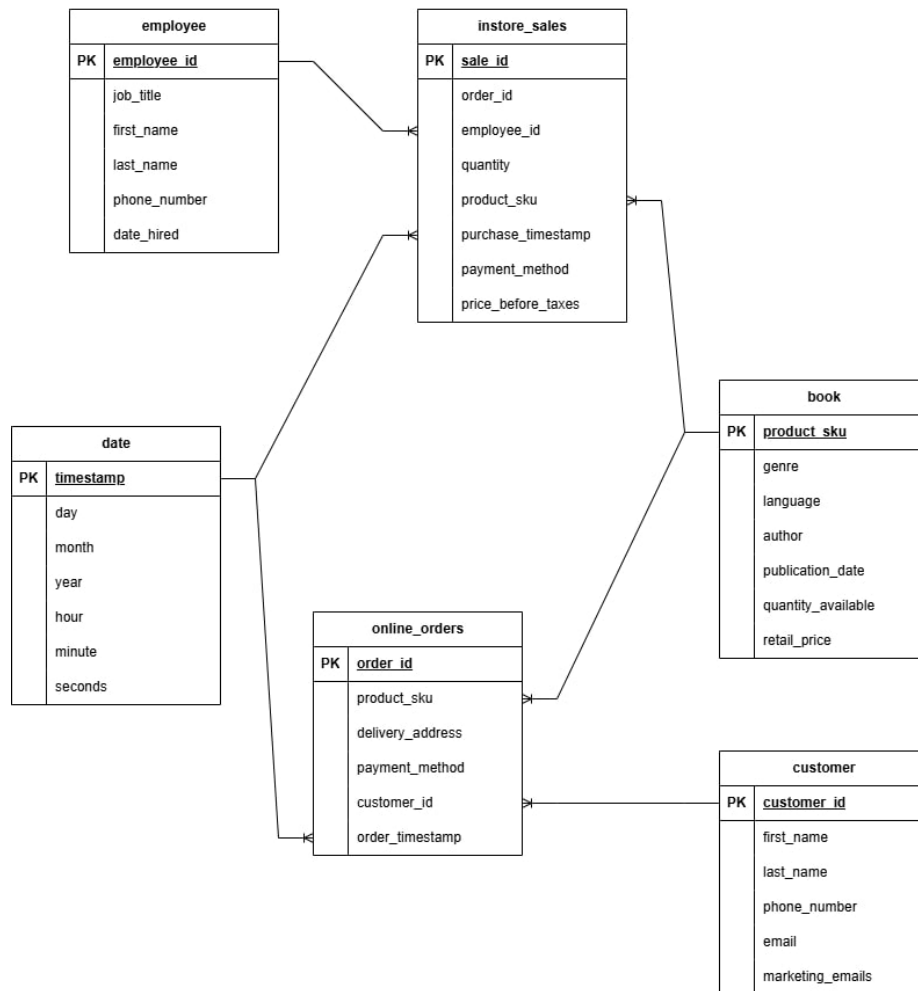


Figure 1: bookstore data model

## Small Bookstore ERD

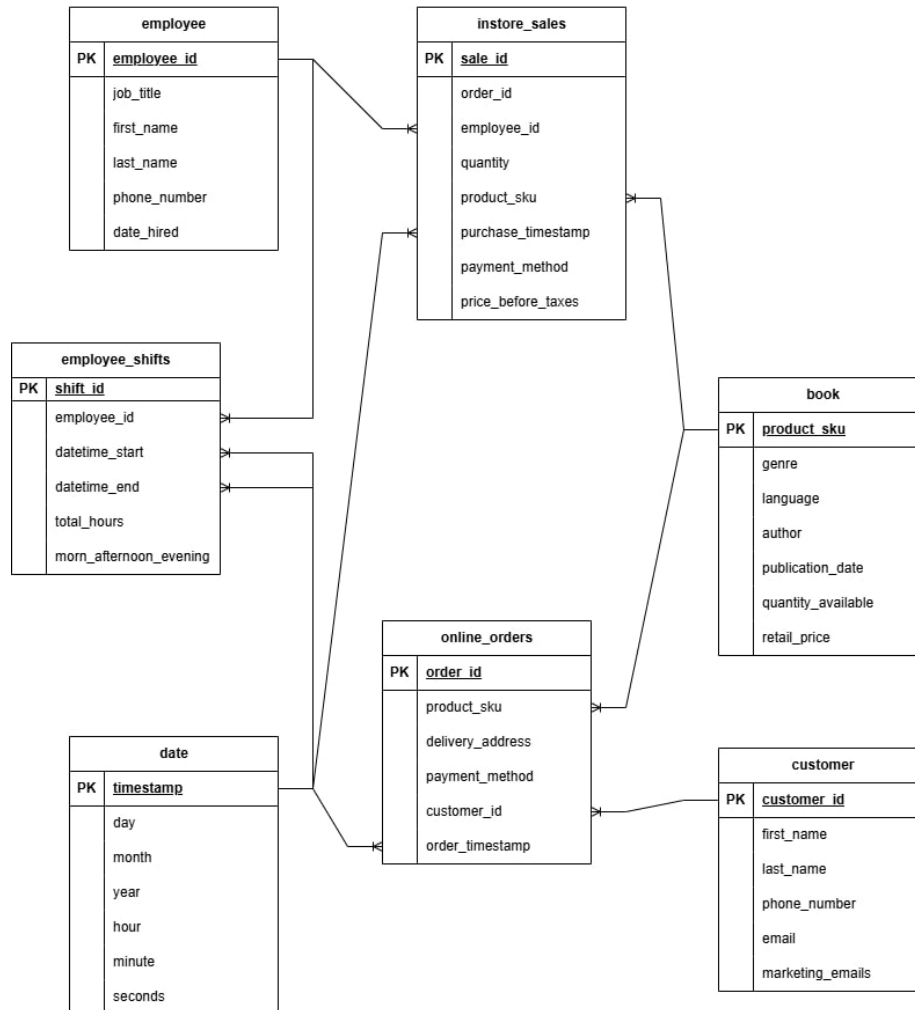


Figure 2: bookstore data model

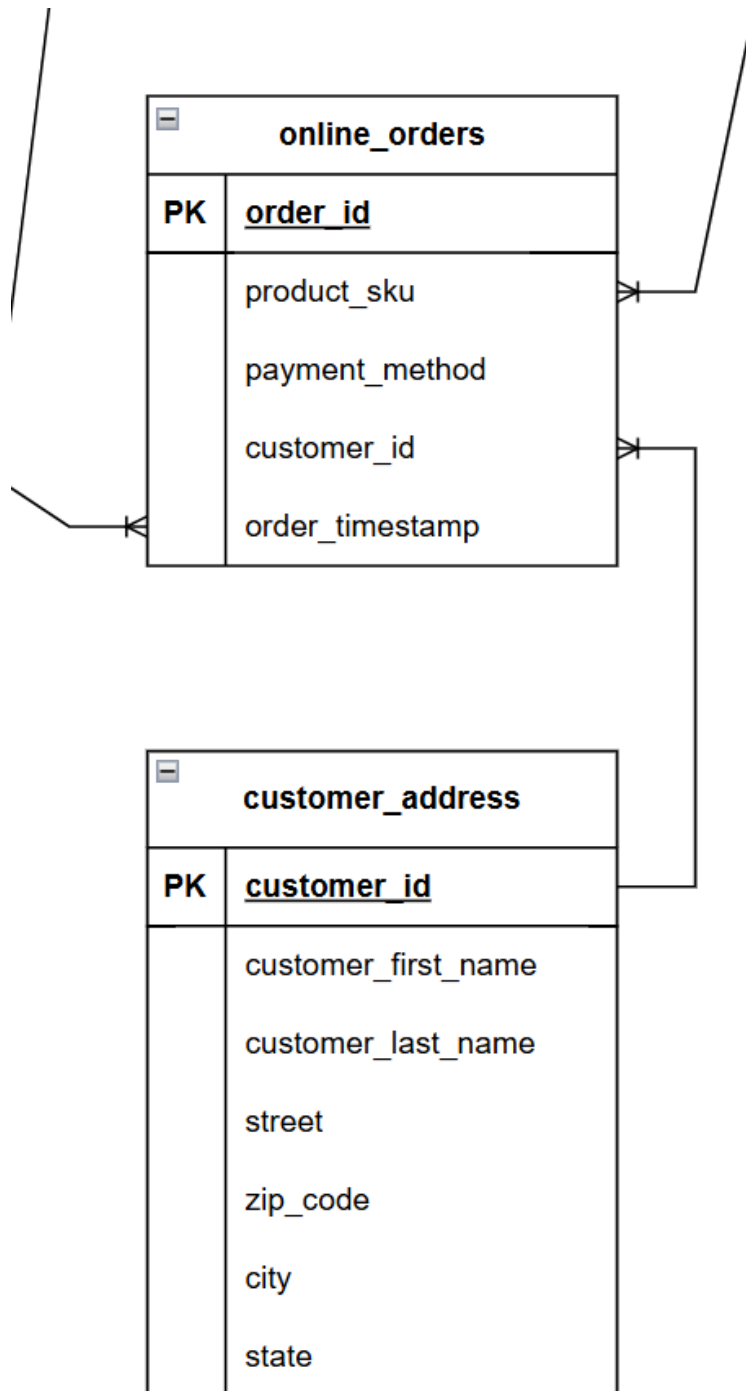


Figure 3: bookstore data model

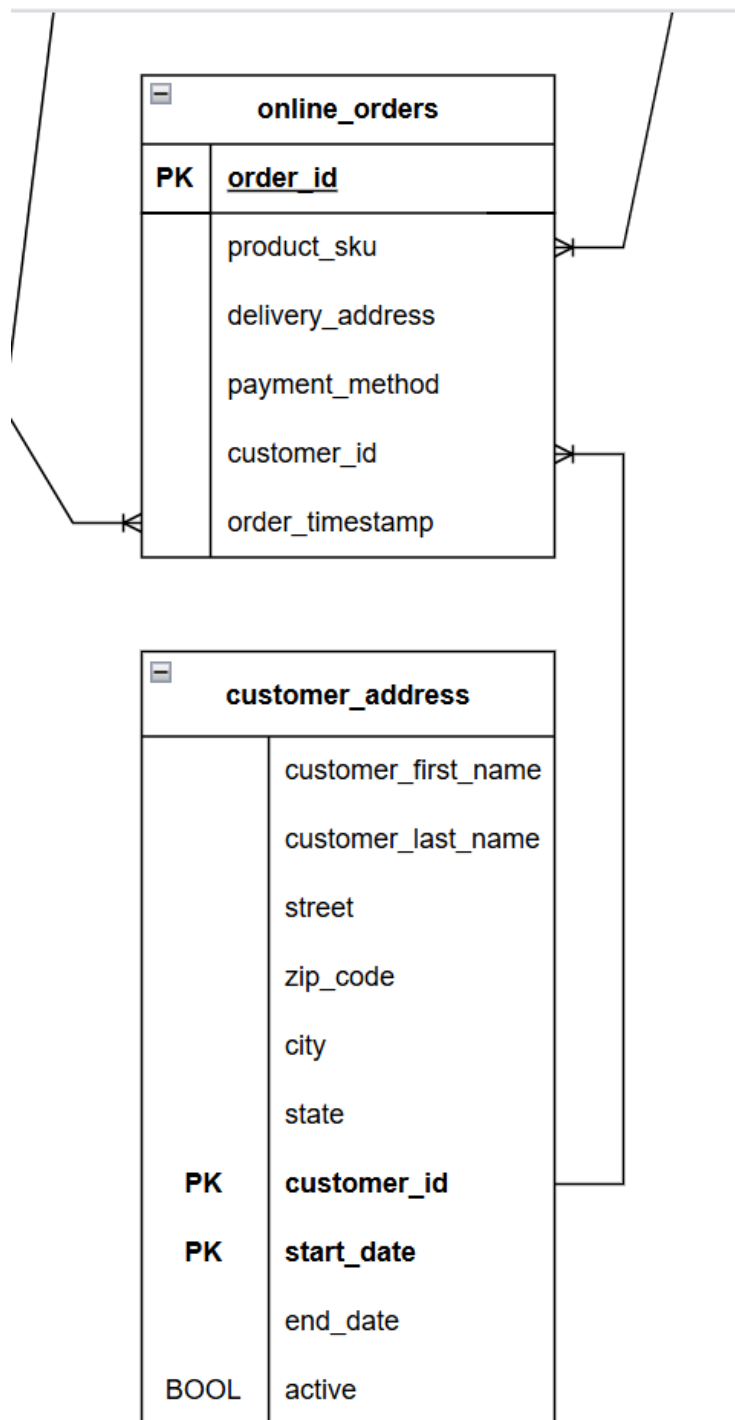


Figure 4: bookstore data model

- Align my tables better so that their edges match up
- Make sure that all of my arrows have either perfectly horizontal or vertical sections, for
- Group tables by theme/department, using lightly coloured blocks in the background, and lab
- Indicate FK in addition to PK