

2023 Database System - Final Demo

PUN street Universal Access

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潘 (p'un) 街美食存取系統
PUN street Universal Access

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PUA

開發方式

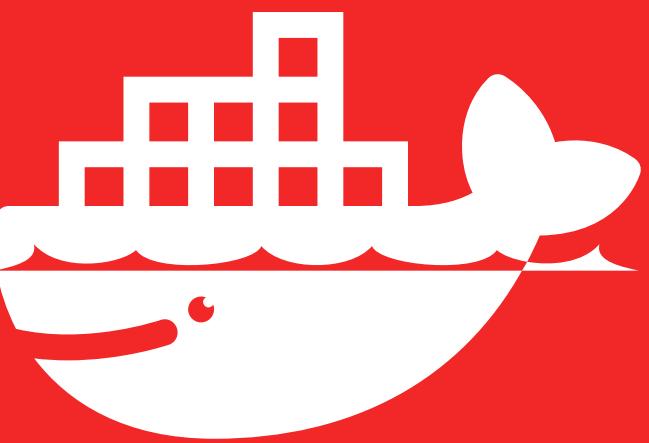
Development Plan

前端 : svelte

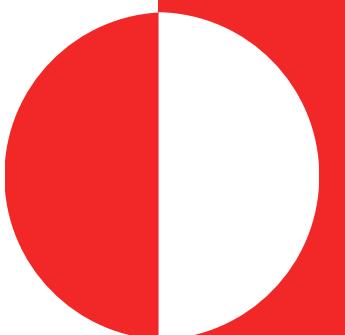
後端 : golang

資料庫 : PostgreSQL

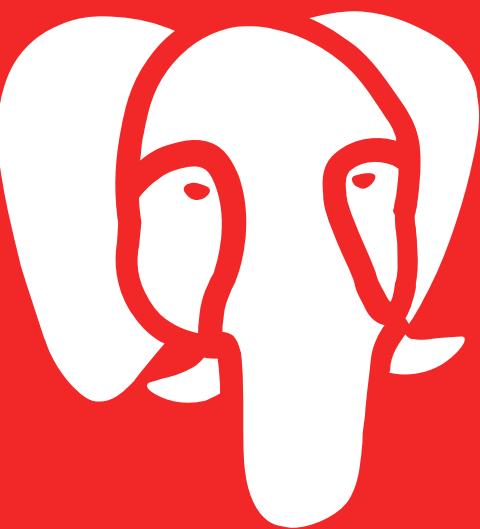
容器 : docker



docker



svelte



postgreSQL



golang

目錄 Content

我們，旨在提供所有人皆能方便、迅速的享用潘街上的美食

- 成員
- ER 圖 、邏輯結構圖 更新
- SQL 應用範例
- 使用情境 - 已完成
- 功能性相依
- 成果展示



成員

Team Member

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顧問

同時兼任：

驗證服務提供者 / 部署服務

成員

郭丞軒

王爌弘

黃政

陸芳寰

陳姿安

歐佳昀

劉承翰

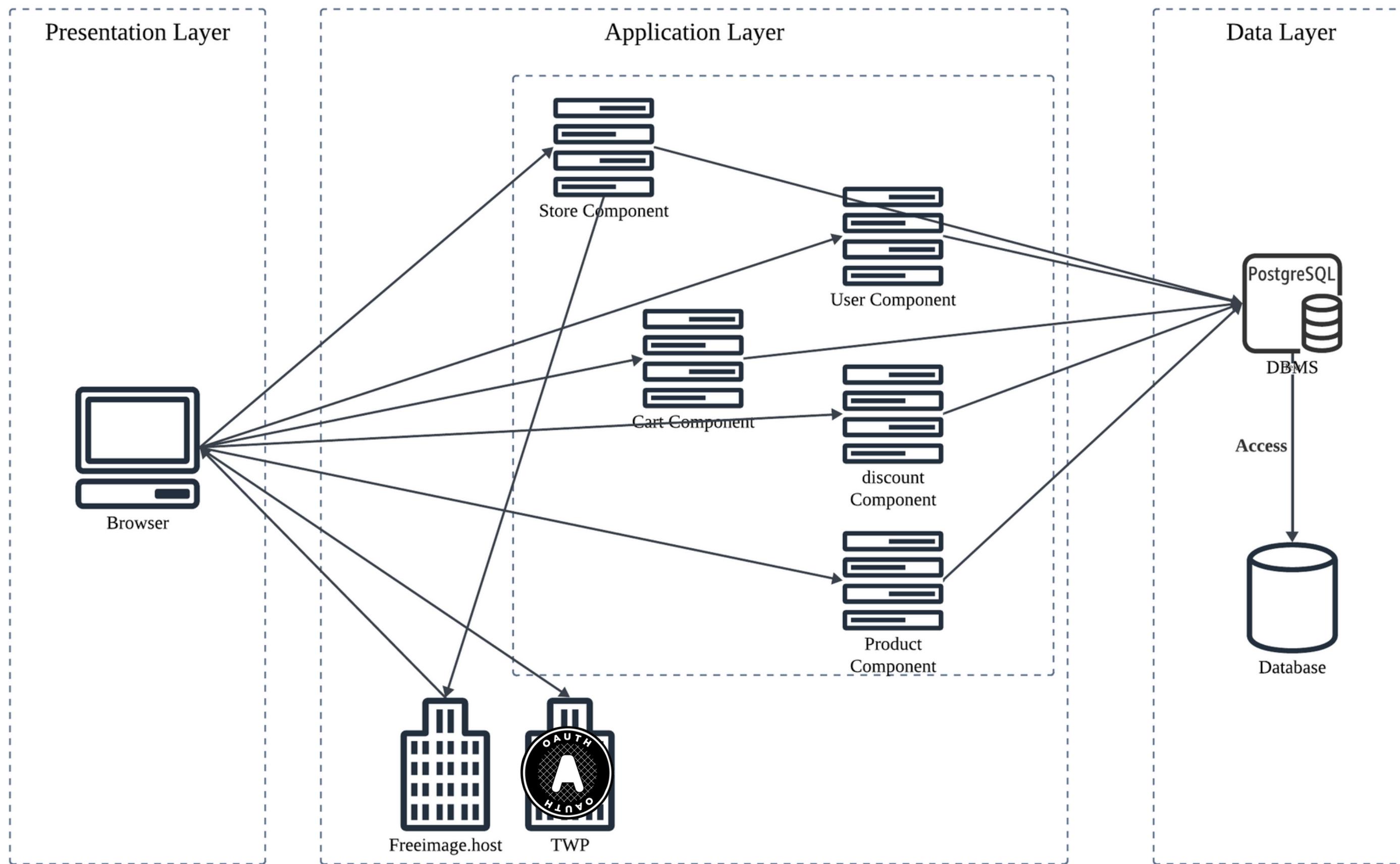
All - 180%

”我們比原本多付出了80%的努力“

ER圖、邏輯結構圖更新

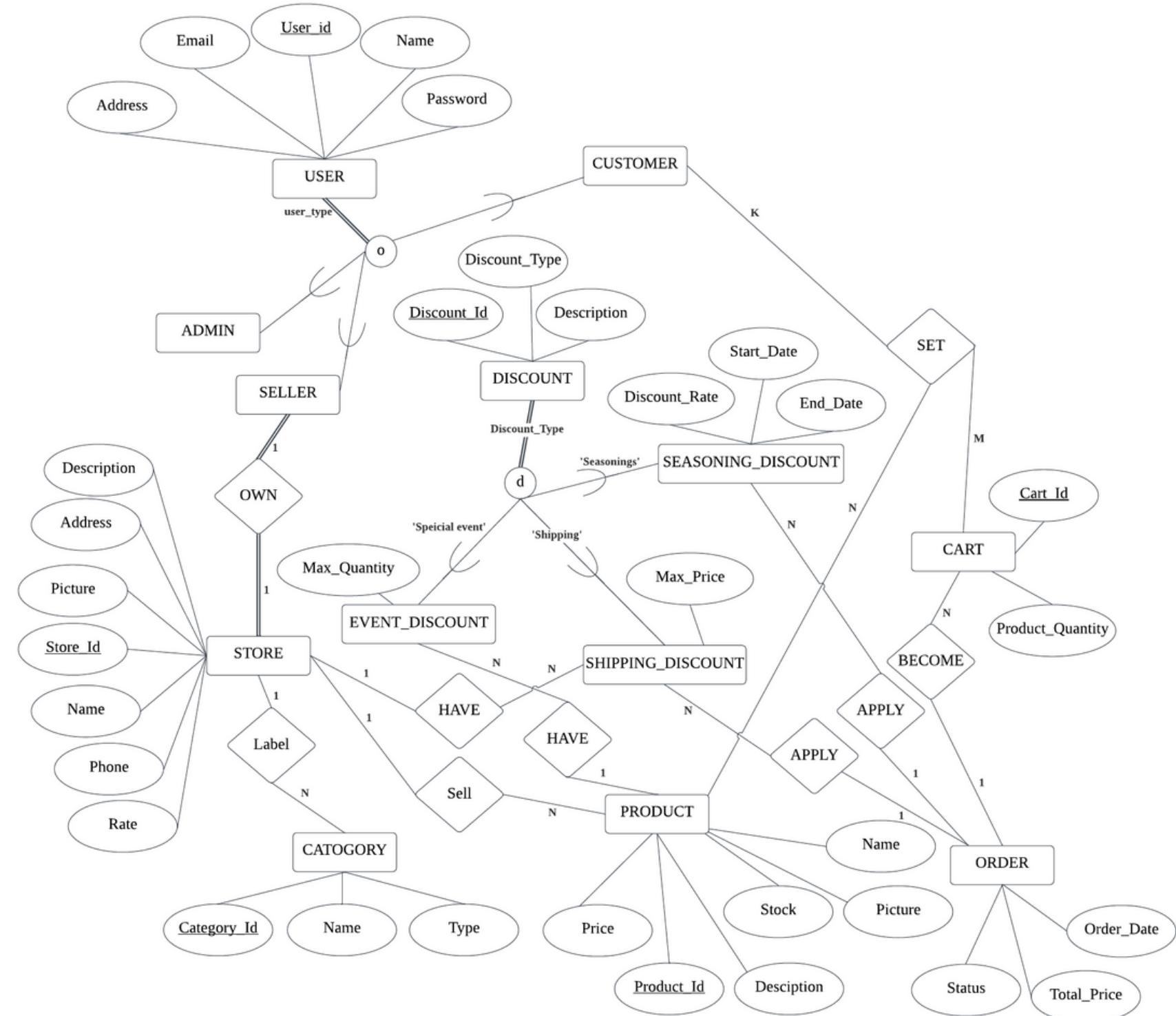
**ER Diagram
Logic Schema - Update**

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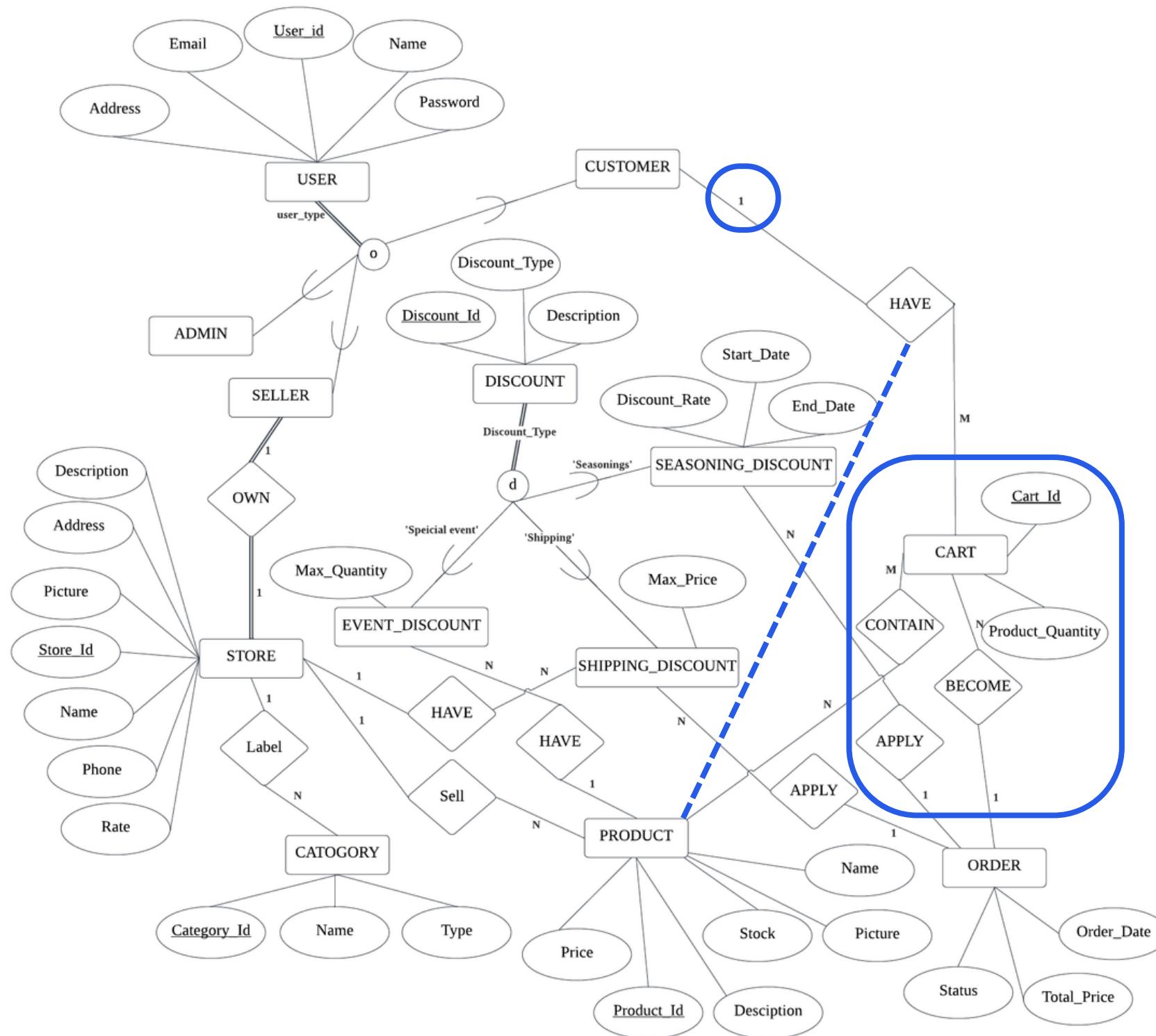


ER Diagram - Update



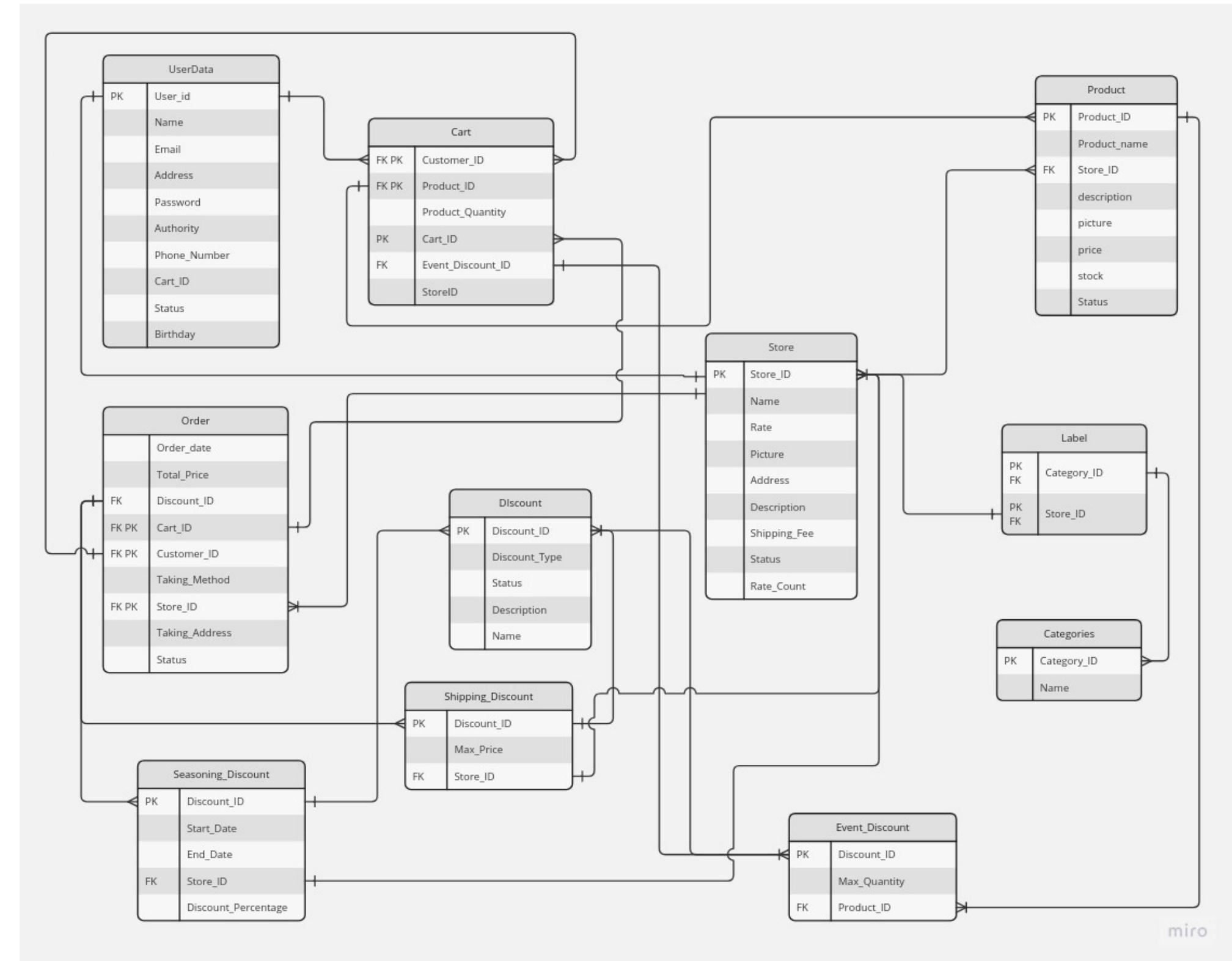
ER圖 - 更新

ER Diagram - Update



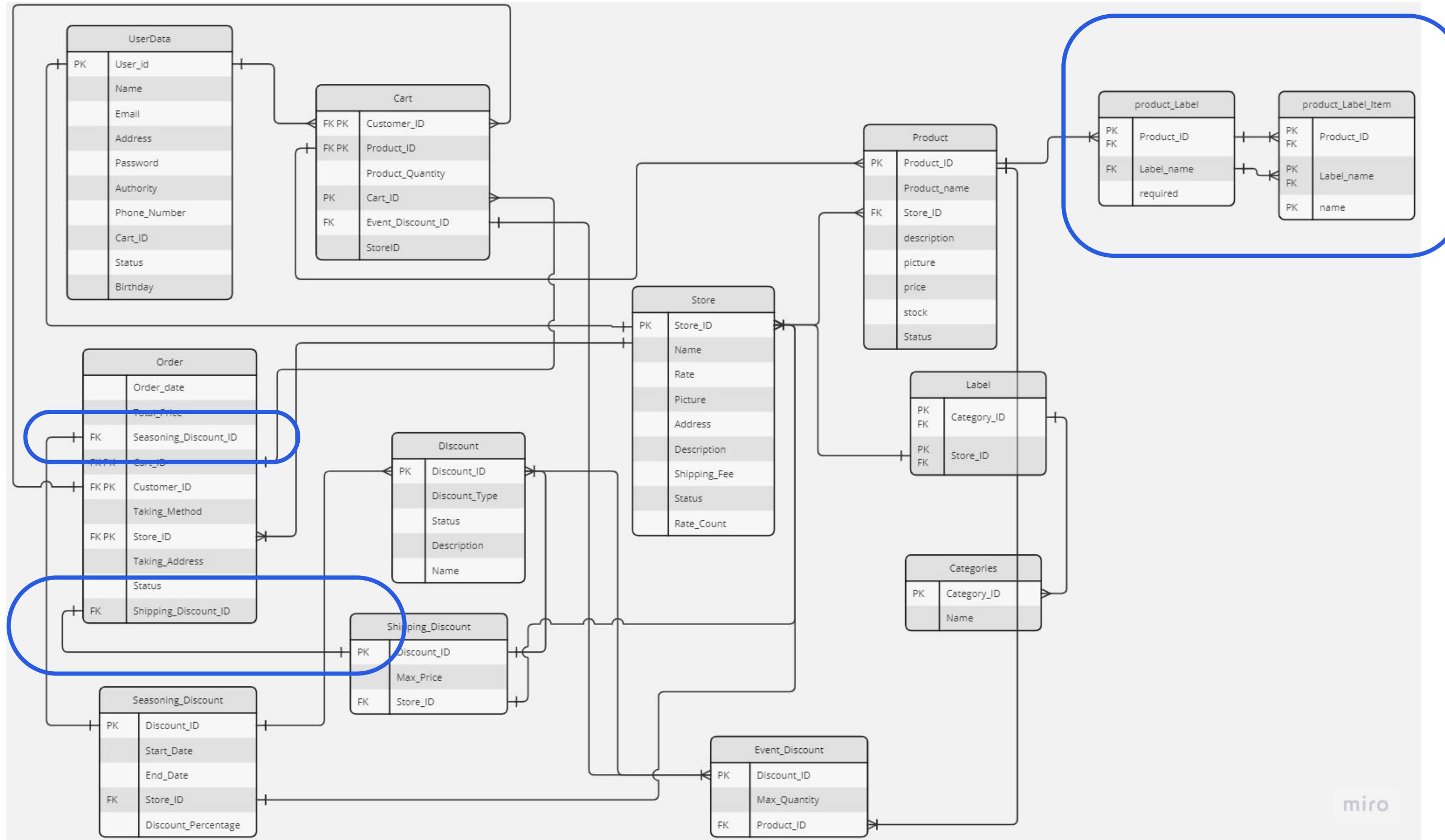
邏輯結構圖

Logic schema - Update



邏輯結構圖 - 更新

Logic schema - Update



SQL 應用範例

SQL Simple Examples

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SQL 應用範例

SQL Simple Examples

```
SELECT
    COALESCE(SUM(total_price), 0)
FROM orders
WHERE
    store_id = $1
    AND orders.status >= 6
    AND EXTRACT(
        year
        FROM
            order_date
    ) = $2
    AND EXTRACT(
        month
        FROM order_date
    ) = $3;
```

計算商店在期間內的營業
額

```
SELECT
    store_id,
    product_id,
    name,
    picture
from products
NATURAL JOIN (
    SELECT product_id, count(*)
    from carts
    WHERE (
        carts.customer_id,
        carts.cart_id
    ) in (
        SELECT customer_id, cart_id
        FROM carts
        WHERE
            product_id = $1
        )
        AND product_id != $1
    GROUP BY product_id
    ORDER BY count DESC
    LIMIT 10
) AS result
```

推薦商品

```
SELECT
    store_id,
    name,
    rate,
    rate_count,
    address,
    picture,
    description,
    shipping_fee,
    status,
    (
        SELECT
            jsonb_agg(
                jsonb_build_object(
                    'category_id',
                    categories.category_id,
                    'category_name',
                    categories.name
                )
            ) AS categories_item
    ) AS categories
    NATURAL JOIN (
        SELECT labels.category_id
        FROM labels
        WHERE
            labels.store_id = $1
    ) AS label
) AS category_array
FROM stores
WHERE store_id = $1;
```

獲取商店資訊

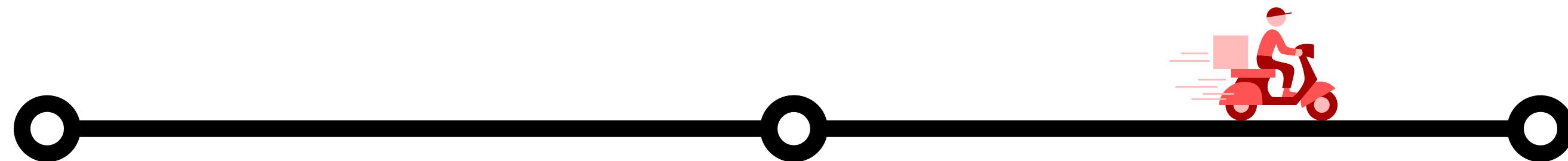
使用情景 - 已完成

Usage Scenario - Finish

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使用情景 - 已完成

Usage Scenario - Finish



1 - 顧客

- 瀏覽、搜索店家並訂購餐點
- 查詢購物車、訂單狀況
- 為商店評分
- 查詢歷史紀錄
- 註冊顧客成為顧客



2 - 商店管理者

- 管理、更新餐點品項
- 查看月份總銷量、餐點銷售統計資料
- 更新訂單狀況
- 更新、刪除各種折扣政策
- 更新、刪除商店標籤
- 註冊商店成為商店管理者



3 - 管理員

- 管理所有帳號
- 查看所有訂單歷史紀錄



使用情景 - 已完成

Usage Scenario - Finish



功能性相依

Functional Dependencies

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功能性相依

Functional Dependencies

Before

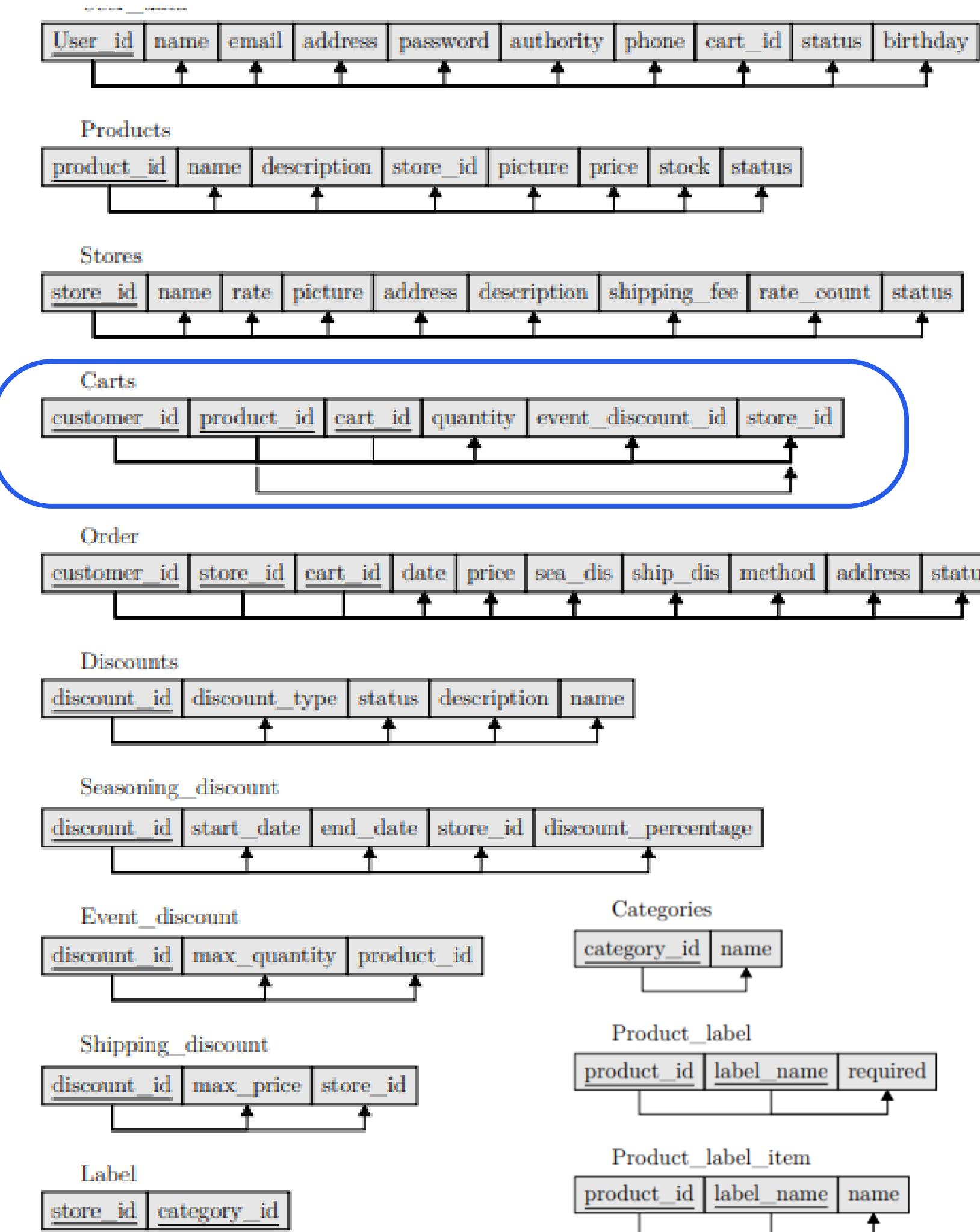
Carts					
customer_id	product_id	cart_id	quantity	event_discount_id	store_id
FD1			↑	↑	↑
FD2		↑			↑

After

Carts				
customer_id	product_id	cart_id	quantity	event_discount_id
			↑	↑

FD2 違反 2NF

修改後，所有皆符合 BCNF



成果展示

DEMO

- [VIDEO]
- [<https://pua.noobdy.com/>]





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Thank You

<https://pua.noobdy.com/>