

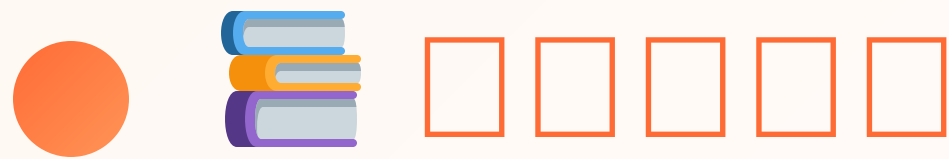
# 7 - INNER JOIN

---

ID2



ID 2



# 1. JOIN

```
sales.csv
customer_id | product_id | quantity
C001        | P003       | 5

→ customers.csv
→ products.csv
```

## 2. INNER JOIN□□□□□

```
SELECT □□  
FROM □□□□1  
INNER JOIN □□□□2  
ON □□□□1.□□□ = □□□□2.□□□;
```

### 3. JOIN□□□□

customers□:

customer_id		name
C001		□□
C002		□□

sales□:

customer_id		product_id
C001		P003
C002		P001

□□□□:

customer_id		name		product_id
C001		□□		P003
C002		□□		P001

## 4. □□□□□□□□□□□□□□

□□□□□□□□□□□□□□

```
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p
ON s.product_id = p.product_id
```



1

```
SELECT
    s.*,
    p.product_name
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p
ON s.product_id = p.product_id;
```

product\_id

□ □ □ □ □ □ □ □ □

**SELECT**

s.order\_date **AS** □□□,  
s.customer\_id **AS** □□ID,  
p.product\_name **AS** □□□,  
s.quantity **AS** □□

**FROM** 'data/sales.csv' **AS** s

**INNER JOIN** 'data/products.csv' **AS** p

**ON** s.product\_id = p.product\_id

**ORDER BY** s.order\_date **DESC**;



□□2□□□□□□□□□□□□□□

```
SELECT
  s.order_date AS □□□,
  c.customer_name AS □□□,
  s.product_id AS □□ID,
  s.quantity AS □□
FROM 'data/sales.csv' AS s
INNER JOIN 'data/customers.csv' AS c
ON s.customer_id = c.customer_id;
```

□□□□□□□□□□□□□□

3

```
SELECT
  s.order_date AS ,
  s.customer_id AS ID,
  p.product_name AS ,
  p.price AS ,
  s.quantity AS ,
  p.price * s.quantity AS
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p
ON s.product_id = p.product_id
ORDER BY  DESC;
```



# 1. 3□□□□□□□□

```
-- □□□□□□□□□□□□□□
```

```
SELECT
```

```
    s.order_date AS □□□,  
    c.customer_name AS □□□,  
    p.product_name AS □□□,  
    s.quantity AS □□,  
    p.price * s.quantity AS □□□□
```

```
FROM 'data/sales.csv' AS s
```

```
INNER JOIN 'data/customers.csv' AS c ON s.customer_id = c.customer_id
```

```
INNER JOIN 'data/products.csv' AS p ON s.product_id = p.product_id
```

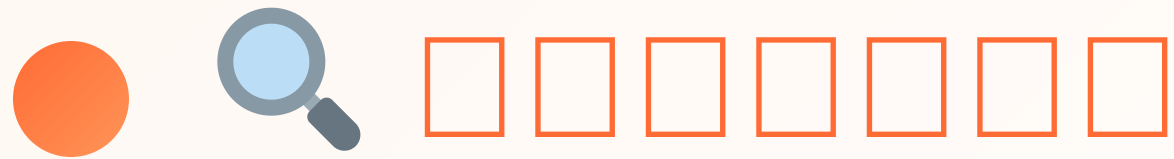
```
ORDER BY s.order_date DESC;
```

## 2. 顧客別商品別売上

```
-- 顧客別商品別売上  
SELECT  
    c.customer_name AS 顧客,  
    p.product_name AS 商品,  
    s.quantity AS 数量,  
    s.order_date AS 注文日  
FROM 'data/sales.csv' AS s  
INNER JOIN 'data/customers.csv' AS c ON s.customer_id = c.customer_id  
INNER JOIN 'data/products.csv' AS p ON s.product_id = p.product_id  
WHERE c.customer_name = '山田太郎'  
ORDER BY s.order_date;
```

### 3. 顧客別売上総額を降順で取得する

```
-- 顧客別売上総額を降順で取得する
SELECT
    c.customer_name AS 顧客名,
    SUM(p.price * s.quantity) AS 売上総額
FROM 'data/sales.csv' AS s
INNER JOIN 'data/customers.csv' AS c ON s.customer_id = c.customer_id
INNER JOIN 'data/products.csv' AS p ON s.product_id = p.product_id
GROUP BY c.customer_id, c.customer_name
ORDER BY 売上総額 DESC;
```



1

```
-- 查詢所有銷售記錄
SELECT
    s.order_date AS 日期,
    c.customer_name AS 客戶名稱,
    c.email AS 客戶Email,
    p.product_name AS 產品名稱,
    p.category AS 產品類別,
    s.quantity AS 數量,
    p.price AS 單價,
    p.price * s.quantity AS 總金額
FROM 'data/sales.csv' AS s
INNER JOIN 'data/customers.csv' AS c ON s.customer_id = c.customer_id
```

## 2

```
-- 查询
SELECT
    p.product_name AS 名称,
    p.category AS 类别,
    COUNT(*) AS 数量,
    SUM(s.quantity) AS 总数量,
    SUM(p.price * s.quantity) AS 总金额
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p ON s.product_id = p.product_id
GROUP BY p.product_id, p.product_name, p.category
ORDER BY 总金额 DESC;
```

# ● ☆ JOIN□□□□□

---

□□□□□□

## 1. □□□□□□□□□□□□

```
-- sales.csv□□□  
SELECT * FROM 'data/sales.csv' LIMIT 3;  
  
-- products.csv□□□  
SELECT * FROM 'data/products.csv' LIMIT 3;
```



## 2. JOIN□□□□□□□

```
SELECT s.*, p.product_name
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p
ON s.product_id = p.product_id
LIMIT 3;
```

→ □□□□□□□□□□□□□□□□

□ □ □ □ □ □ □ □ □ □ □ □



□ □ □ □ □ □ □ □ □ □

```
```sql -- customer_id□□□□□□□□□□ SELECT customer_id -- □□□□ FROM  
'data/sales.csv' AS s INNER JOIN 'data/customers.csv' AS c ON s.customer_id =  
c.customer_id; ```
```



□□□□□□□□

```
```sql SELECT s.customer_id -- OK FROM 'data/sales.csv' AS s INNER JOIN  
'data/customers.csv' AS c ON s.customer_id = c.customer_id; ```
```



# JOIN Tips

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## 1.

sales.csv ← customer\_id → customers.csv

sales.csv ← product\_id → products.csv

## 2.

SELECT

### 3. JOIN

**INNER JOIN** 두 테이블의 공통된 데이터를 가져옵니다.

**LEFT JOIN** 왼쪽 테이블의 모든 데이터와 오른쪽 테이블의 관련 데이터를 가져옵니다.

**RIGHT JOIN** 오른쪽 테이블의 모든 데이터와 왼쪽 테이블의 관련 데이터를 가져옵니다.

**FULL OUTER JOIN** 두 테이블의 모든 데이터를 가져옵니다.



✓ INNER JOIN

✓ ON

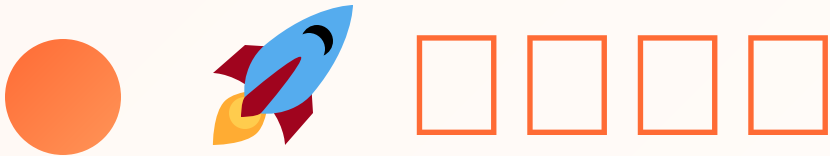
✓ ID

✓ JOIN

✓ .

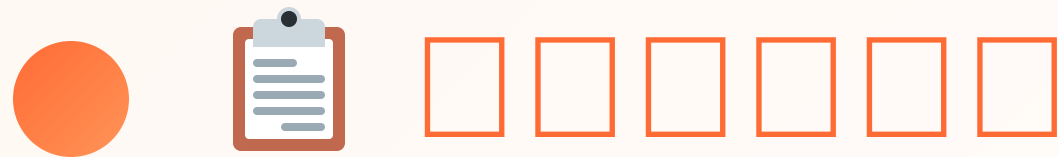
□ □ □ □ □ □ □ □

```
-- 2□□□□□□  
SELECT  
    t1.□□,  
    t2.□□  
FROM □□□□1 AS t1  
INNER JOIN □□□□2 AS t2  
ON t1.□□□ = t2.□□□;  
  
-- 3□□□□□□  
FROM □□□□1 AS t1  
INNER JOIN □□□□2 AS t2 ON t1.id = t2.id  
INNER JOIN □□□□3 AS t3 ON t2.id = t3.id;
```



8 LEFT JOIN  
[Empty boxes for text input]





# 1 JOIN

```
-- 1. sales JOIN customers
--
-- 2. sales JOIN products
--
-- 3. products JOIN sales
--
```

## □□2□JOIN□□□□□□□

□□□□□□□□□□

```
-- sales□products□□□□□□□□□□□□□□
-- □□□ | □□□ | □□ | □□ | □□□□□×□□□
SELECT
    s.order_date AS □□□,
    ____ AS □□□,
    ____ AS □□,
    s.quantity AS □□,
    ____ AS □□
FROM 'data/sales.csv' AS s
INNER JOIN 'data/products.csv' AS p ON ____;
```

33

1

```
-- salescustomersproducts  
--  
--
```

# □□4□□□□□JOIN

WHERE□□□□□□□□

```
-- 1. □□□□□□□□□□□□□□□□□□  
-- □□□□□□□□□□□□□□□□  
  
-- 2. □□□□1□20□□□□□□□□□□□□□□□□  
-- □□□□□□□□□□□□□□□□  
  
-- 3. □□□□3□□□□□□□□□□□□□□□□  
-- □□□□□□□□□□□□□□□□
```



```
-- □□□□□□□□□□□□□□□□□□□□□□□□  
-- □□□□JOIN□GROUP BY□□□□□□□□
```



```
--   
-- 1.   
-- 2.   
-- 3. 
```



□□□□□□□□□□□□□□

-- □□□1□□□□□□□□□□□□

```
SELECT customer_name, product_name
FROM 'data/sales.csv' AS s
INNER JOIN 'data/customers.csv' AS c ON customer_id = customer_id;
```

-- □□□2□□□□□□□□□□

```
SELECT * FROM 'data/sales.csv' s
INNER JOIN 'data/products.csv' p ON s.customer_id = p.product_id;
```

-- □□□3□□□□□□□□□□

```
SELECT s.sale_id, c.name, p.item_name
FROM 'data/sales.csv' s
INNER JOIN 'data/customers.csv' c ON s.customer_id = c.customer_id
INNER JOIN 'data/products.csv' p ON s.product_id = p.product_id;
```



## JOIN

```
-- 1. 内联表连接
-- 表C001内联表连接
SELECT DISTINCT s2.customer_id, c.customer_name
FROM 'data/sales.csv' s1
INNER JOIN 'data/sales.csv' s2 ON s1.product_id = s2.product_id
INNER JOIN 'data/customers.csv' c ON s2.customer_id = c.customer_id
WHERE s1.customer_id = 'C001' AND s2.customer_id != 'C001';

-- 2. 内联表
-- 内联表连接
```



 360

```
-- 表名C001
-- 表名
-- 表名
-- - 表名
-- - 表名
-- - 表名TOP3
```



- - □□□□□□□□□□□□□□□□□□□□□□□□  
- - □□□□□P001□□□□□□□□□□□□□□□□□□□□  
- - □□□□□□□□□□□□□□□□□□



```
-- 2nd query
-- 1st WHERE clause
SELECT c.customer_name, p.product_name, s.quantity
FROM 'data/sales.csv' s
INNER JOIN 'data/customers.csv' c ON s.customer_id = c.customer_id
INNER JOIN 'data/products.csv' p ON s.product_id = p.product_id
WHERE s.order_date >= '2024-01-20';
```

```
-- 2nd query
-- 1st WHERE clause
```

# ● ? FAQ

---

**Q: JOIN和INNER JOIN的区别**

A: JOIN和INNER JOIN是一样的

**Q: 0和0.0的区别**

A: ON和ON.0是一样的

**Q: 0和0.0的区别**

A: 0和0.0是一样的