

1、实例

- 查询所有客户的姓名及订单编号？

```
select c.cust_name, o.order_num from customers c
inner join
orders o
on c.cust_id=o.cust_id;

mysql> select c.cust_name, o.order_num from customers c
-> inner join
-> orders o
-> on c.cust_id=o.cust_id;
+-----+-----+
| cust_name      | order_num |
+-----+-----+
| Coyote Inc.    | 20005    |
| Coyote Inc.    | 20009    |
| Coyote Inc.    | 20010    |
| Coyote Inc.    | 20011    |
| Wascals        | 20006    |
| Yosemite Place | 20007    |
| E Fudd         | 20008    |
+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

2、笛卡尔乘积

- 不指定连接条件，得到的结果
- 第一张表的每一行和第二张表的每一行组合
- 如果第一张表有A行，第二张表有B行，那么得到的结果就是 A * B行
- 所以如果不指定条件，得到很多废数据
- select t1.*, t2.* from t1 inner join t2;
- select t1.*, t2.* from t1,t2;

3、内连接

- 有需求需要把不同的表的字段放到一个结果里，这就需要连接
- 语法
 - select * from 表1 (inner) join 表2 on 连接条件
 - select * from 表1, 表2 where 连接条件

4、实例

- 查询各个供应商的产品名称和价格，按供应商名称和产品名称升序排列
 - select vendors.*, products.* from vendors,products where vendors.vend_id=products.vend_id;
 - inner join
- 查询每个订单的编号、时间、及订单购买的产品编号、数量？

```
mysql> select o.order_num,o.order_date, oi.prod_id, oi.quantity
-> from orders o
-> inner join
-> orderitems oi
-> on o.order_num = oi.order_num;
+-----+-----+-----+-----+
| order_num | order_date      | prod_id | quantity |
+-----+-----+-----+-----+
| 20005    | 2005-09-01 00:00:00 | ANV01   | 10        |
| 20005    | 2005-09-01 00:00:00 | ANV02   | 3         |
| 20005    | 2005-09-01 00:00:00 | TNT2    | 5         |
| 20005    | 2005-09-01 00:00:00 | FB      | 1         |
| 20006    | 2005-09-12 00:00:00 | JP2000  | 1         |
| 20007    | 2005-09-30 00:00:00 | TNT2    | 100       |
| 20008    | 2005-10-03 00:00:00 | FC      | 50        |
| 20009    | 2005-10-08 00:00:00 | FB      | 1         |
| 20009    | 2005-10-08 00:00:00 | OL1     | 1         |
| 20009    | 2005-10-08 00:00:00 | SLING   | 1         |
| 20009    | 2005-10-08 00:00:00 | ANV03   | 1         |
| 20010    | 2005-10-08 05:00:00 | ANV03   | 1         |
| 20011    | 2005-10-08 20:00:00 | ANV03   | 1         |
+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql>
```

5、多表连接

- 三表或者更多...
- 语法
 - 表1 inner join 表2 on 条件1 inner join 表3 on 条件2
 - 条件？ 两两相关就行

6、实例

- 查询所有客户的姓名、订单编号、订单中购买的产品编号、数量？

```
mysql> select c.cust_id,c.cust_name, i.prod_id, i.quantity
-> from customers c
-> inner join
-> orders o
-> on c.cust_id = o.cust_id
-> inner join
-> orderitems i
-> on o.order_num = i.order_num;
+-----+-----+-----+-----+
| cust_id | cust_name      | prod_id | quantity |
+-----+-----+-----+-----+
| 10001   | Coyote Inc.    | ANV01   | 10        |
| 10001   | Coyote Inc.    | ANV02   | 3         |
| 10001   | Coyote Inc.    | TNT2    | 5         |
| 10001   | Coyote Inc.    | FB      | 1         |
| 10001   | Coyote Inc.    | FB      | 1         |
| 10001   | Coyote Inc.    | OL1     | 1         |
| 10001   | Coyote Inc.    | SLING   | 1         |
| 10001   | Coyote Inc.    | ANV03   | 1         |
| 10001   | Coyote Inc.    | ANV03   | 1         |
| 10001   | Coyote Inc.    | ANV03   | 1         |
| 10003   | Wascals        | JP2000  | 1         |
| 10004   | Yosemite Place | TNT2    | 100       |
| 10005   | E Fudd         | FC      | 50        |
+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql>
```

- 查询每个订单编号、时间以及订单购买的产品名称、数量？

```
mysql> select o.order_num, o.order_date, p.prod_name, i.quantity
-> from orders o
-> inner join
-> orderitems i
-> on o.order_num = i.order_num
-> inner join
-> products p
-> on i.prod_id = p.prod_id;
+-----+-----+-----+-----+
| order_num | order_date      | prod_name      | quantity |
+-----+-----+-----+-----+
| 20005    | 2005-09-01 00:00:00 | .5 ton anvil   | 10        |
| 20005    | 2005-09-01 00:00:00 | 1 ton anvil    | 3         |
| 20005    | 2005-09-01 00:00:00 | TNT (5 sticks) | 5         |
| 20005    | 2005-09-01 00:00:00 | Bird seed      | 1         |
| 20006    | 2005-09-12 00:00:00 | JetPack 2000   | 1         |
| 20007    | 2005-09-30 00:00:00 | TNT (5 sticks) | 100       |
| 20008    | 2005-10-03 00:00:00 | Carrots        | 50        |
| 20009    | 2005-10-08 00:00:00 | Bird seed      | 1         |
| 20009    | 2005-10-08 00:00:00 | Oil can        | 1         |
| 20009    | 2005-10-08 00:00:00 | Sling          | 1         |
| 20009    | 2005-10-08 00:00:00 | 2 ton anvil    | 1         |
| 20010    | 2005-10-08 05:00:00 | 2 ton anvil    | 1         |
| 20011    | 2005-10-08 20:00:00 | 2 ton anvil    | 1         |
+-----+-----+-----+-----+
13 rows in set (0.00 sec)

mysql>
```