



链滴

# Select - 语法指南

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来源网站: [链滴](#)

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# 一、Select - 语法解析

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```
SELECT
  [ALL | DISTINCT | DISTINCTROW ]
  [HIGH_PRIORITY]
  [STRAIGHT_JOIN]
  [SQL_SMALL_RESULT] [SQL_BIG_RESULT] [SQL_BUFFER_RESULT]
  [SQL_CACHE | SQL_NO_CACHE] [SQL_CALC_FOUND_ROWS]
  select_expr [, select_expr ...]
  [FROM table_references
  [PARTITION partition_list]
  [WHERE where_condition]
  [GROUP BY {col_name | expr | position}
  [ASC | DESC], ... [WITH ROLLUP]]
  [HAVING where_condition]
  [ORDER BY {col_name | expr | position}
  [ASC | DESC], ...]
  [LIMIT {[offset,] row_count | row_count OFFSET offset}]
  [PROCEDURE procedure_name(argument_list)]
  [INTO OUTFILE 'file_name'
  [CHARACTER SET charset_name]
  export_options
  | INTO DUMPFILE 'file_name'
  | INTO var_name [, var_name]]
  [FOR UPDATE | LOCK IN SHARE MODE]]
```

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## ## 二、Select - 语法示例

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### ### 单表查询

> 查询表结构

```
mysql> desc t3;
```

```
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| id    | int(11)   | NO   | PRI | NULL    |      |
| name  | varchar(200) | YES |     | NULL    |      |
| email | varchar(200) | YES |     | NULL    |      |
+-----+-----+-----+-----+-----+
```

```
3 rows in set (0.00 sec)
```

```
mysql> show columns from d1.t3;
```

```

+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int(11)   | NO   | PRI | NULL    |      |
| name  | varchar(200) | YES |    | NULL    |      |
| email | varchar(200) | YES |    | NULL    |      |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

```

### > 查询表中数据

```

mysql> select * from t3;
mysql> select id,name,email from t3;

```

```

+----+-----+-----+
| id | name | email |
+----+-----+-----+
| 1  | n1   | e1    |
| 2  | n2   | e2    |
| 3  | n3   | e3    |
| 4  | n1   | e1    |
| 5  | n2   | e2    |
| 6  | n3   | e3    |
+----+-----+-----+

```

### ### 单表条件查询

> `=` 等于、`<>` != 不等于、`in` 包含、`not in` 不包含、`like` 模糊查找`

```

mysql> select id,name,email from t3 where name='n1';

```

```

+----+-----+-----+
| id | name | email |
+----+-----+-----+
| 1  | n1   | e1    |
| 4  | n1   | e1    |
+----+-----+-----+

```

2 rows in set (0.00 sec)

### ### 单表多条件查询

> `or` 或、`and` 与、`in` 包含、`not in` 不包含`

```
mysql> select id,name,email from t3 where name='n1' and id>1;
```

```
+----+-----+-----+
| id | name | email |
+----+-----+-----+
| 4 | n1  | e1   |
+----+-----+-----+
1 row in set (0.00 sec)
```

### 排序查询  
>单列升序

```
mysql> select id,name,email from t3 order by id;
```

```
+----+-----+-----+
| id | name | email |
+----+-----+-----+
| 1 | n1  | e1   |
| 2 | n2  | e2   |
| 3 | n3  | e3   |
| 4 | n1  | e1   |
| 5 | n2  | e2   |
| 6 | n3  | e3   |
+----+-----+-----+
6 rows in set (0.00 sec)
```

>单列降序

```
mysql> select id,name,email from t3 order by id desc;
```

```
+----+-----+-----+
| id | name | email |
+----+-----+-----+
| 6 | n3  | e3   |
| 5 | n2  | e2   |
| 4 | n1  | e1   |
| 3 | n3  | e3   |
| 2 | n2  | e2   |
| 1 | n1  | e1   |
+----+-----+-----+
6 rows in set (0.00 sec)
```

## >多列混合排序

### 第一列升序, 第二列降序

```
mysql> select name,age from t5 order by name,age desc;
```

```
+-----+-----+
| name | age |
+-----+-----+
| n1   | 22 |
| n2   | 23 |
| n3   | 24 |
| n4   | 25 |
| n5   | 25 |
| n5   | 11 |
| n6   | 22 |
+-----+-----+
```

```
7 rows in set (0.00 sec)
```

### 第一列降序, 第二列升序

```
mysql> select name,age from t5 order by name desc,age;
```

```
+-----+-----+
| name | age |
+-----+-----+
| n6   | 22 |
| n5   | 11 |
| n5   | 25 |
| n4   | 25 |
| n3   | 24 |
| n2   | 23 |
| n1   | 22 |
+-----+-----+
```

```
7 rows in set (0.00 sec)
```

## ### 分组查询

>`max()` 最大值`、`min()`最小值`、`avg()` 平均值`、`count()` 计数`

```
mysql> select name,count(email) as sum from t3 group by name;
```

```
+-----+-----+
```

```

| name | sum |
+-----+-----+
| n1   | 2   |
| n2   | 2   |
| n3   | 2   |
+-----+-----+

```

3 rows in set (0.00 sec)

### ### 条件、分组、排序、过滤

```
mysql> select name,count(email) sum from t3 where id>1 group by name having sum>1 order by name desc;
```

```

+-----+-----+
| name | sum |
+-----+-----+
| n3   | 2   |
| n2   | 2   |
+-----+-----+

```

2 rows in set (0.01 sec)

### ### 笛卡尔积

```
mysql> select a.,b. from t3 a,t4 b;
```

```

+----+-----+-----+-----+-----+-----+
| id | name | email | id  | name | age |
+----+-----+-----+-----+-----+-----+
| 1 | n1   | e1    | 1  | n1   | 22  |
| 1 | n1   | e1    | 2  | n2   | 23  |
| 1 | n1   | e1    | 3  | n3   | 24  |
| 2 | n2   | e2    | 1  | n1   | 22  |
| 2 | n2   | e2    | 2  | n2   | 23  |
| 2 | n2   | e2    | 3  | n3   | 24  |
| 3 | n3   | e3    | 1  | n1   | 22  |
| 3 | n3   | e3    | 2  | n2   | 23  |
| 3 | n3   | e3    | 3  | n3   | 24  |
| 4 | n1   | e1    | 1  | n1   | 22  |
| 4 | n1   | e1    | 2  | n2   | 23  |
| 4 | n1   | e1    | 3  | n3   | 24  |
| 5 | n2   | e2    | 1  | n1   | 22  |

```

```

| 5 | n2 | e2 | 2 | n2 | 23 |
| 5 | n2 | e2 | 3 | n3 | 24 |
| 6 | n3 | e3 | 1 | n1 | 22 |
| 6 | n3 | e3 | 2 | n2 | 23 |
| 6 | n3 | e3 | 3 | n3 | 24 |
+-----+-----+-----+-----+-----+-----+
18 rows in set (0.00 sec)

```

### ### 多表查询

```

mysql> select a.id,a.name,b.id,b.name from t4 a,t5 b where a.id=b.id and a.id<4 and b.name
>'n2';
+-----+-----+-----+-----+
| id | name | id | name |
+-----+-----+-----+-----+
| 1 | n1 | 1 | n1 |
| 3 | n3 | 3 | n3 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

```

### ### 嵌套查询

```

mysql> select name , email from t3 where id > 4 and name in(select name from t4 where id
(select id from t5 where id=2));
+-----+-----+
| name | email |
+-----+-----+
| n2 | e2 |
+-----+-----+
1 row in set (0.01 sec)

```

### ### 关联查询 >左关联

```

mysql> select a.name,a.email,b.name,b.age from t3 a left join t4 b on a.name=b.name;
+-----+-----+-----+-----+
| name | email | name | age |
+-----+-----+-----+-----+
| n1 | e1 | n1 | 22 |

```

```

| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
| n3 | e3 | n3 | 24 |
| n6 | e4 | NULL | NULL |
| n7 | e5 | NULL | NULL |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)

```

>右关联

```

mysql> select a.name,a.email,b.name,b.age from t3 a right join t4 b on a.name=b.name;
+-----+-----+-----+-----+
| name | email | name | age |
+-----+-----+-----+-----+
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
| NULL | NULL | n4 | 25 |
| NULL | NULL | n5 | 25 |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)

```

>内关联

```

mysql> select a.name,a.email,b.name,b.age from t3 a join t4 b on a.name=b.name;
+-----+-----+-----+-----+
| name | email | name | age |
+-----+-----+-----+-----+
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |

```



```
| n3 | e3 | n3 | 24 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

```
mysql> select a.name,a.email,b.name,b.age from t3 a inner join t4 b on a.name=b.name;
```

```
+-----+-----+-----+-----+
| name | email | name | age |
+-----+-----+-----+-----+
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
| n1 | e1 | n1 | 22 |
| n2 | e2 | n2 | 23 |
| n3 | e3 | n3 | 24 |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

### 合并查询  
>结果集直接合并，不做任何处理

```
mysql> select id,name from t3 union all select id,name from t4;
```

```
+-----+-----+
| id | name |
+-----+-----+
| 1 | n1 |
| 2 | n2 |
| 3 | n3 |
| 4 | n1 |
| 5 | n2 |
| 6 | n3 |
| 7 | n6 |
| 8 | n7 |
| 1 | n1 |
| 2 | n2 |
| 3 | n3 |
| 4 | n4 |
| 4 | n5 |
+-----+-----+
```

13 rows in set (0.00 sec)

>结果集去重合并

```
mysql> select id,name from t3 union select id,name from t4;
```

```
+-----+-----+
| id | name |
+-----+-----+
|  1 | n1  |
|  2 | n2  |
|  3 | n3  |
|  4 | n1  |
|  5 | n2  |
|  6 | n3  |
|  7 | n6  |
|  8 | n7  |
|  4 | n4  |
|  4 | n5  |
+-----+-----+
```

10 rows in set (0.00 sec)

### 克隆/备份表

```
mysql> create table t5 as select * from t4;
```

```
mysql> select * from t5;
```

```
+-----+-----+-----+
| id | name | age |
+-----+-----+-----+
|  1 | n1  | 22 |
|  2 | n2  | 23 |
|  3 | n3  | 24 |
|  4 | n4  | 25 |
|  4 | n5  | 25 |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> create table t6 as select * from t4 where name='n1';
```

```
mysql> select * from t6;
```

```
+-----+-----+-----+
```

```
| id | name | age |
+-----+-----+-----+
| 1 | n1 | 22 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

### ### 快速复制数据

```
mysql> insert into t6 select * from t5;
```

```
mysql> select * from t6;
```

```
+-----+-----+-----+
| id | name | age |
+-----+-----+-----+
| 1 | n1 | 22 |
| 1 | n1 | 22 |
| 2 | n2 | 23 |
| 3 | n3 | 24 |
| 4 | n4 | 25 |
| 4 | n5 | 25 |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

```
mysql> insert into t6 select * from t5 where name='n3';
```

```
mysql> select * from t6;
```

```
+-----+-----+-----+
| id | name | age |
+-----+-----+-----+
| 1 | n1 | 22 |
| 1 | n1 | 22 |
| 2 | n2 | 23 |
| 3 | n3 | 24 |
| 4 | n4 | 25 |
| 4 | n5 | 25 |
| 3 | n3 | 24 |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

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