

MySQL Note

chapter 1

选择数据库

- use database;

显示数据库

- show database;

显示表

- show tables;

显示表列

- show columns from `table_name`;
- describe `table_name`;

chapter 2

检索单个列

- select `col_1`
from `table_name`;

检索多个列

- select `col_1`, `col_2`, `col_3`
from `table_name`;

检索所有列

- select *
from `table_name`;

不同的行

- `select distinct col_1
from table_name;`

限制结果

显示num行

- `select col_1
from table_name
limit num;`

从col_num开始的num行

- `select col_1
from table_name
limit col_num, num;`

chapter 3

排序数据

- `select col_1
from table_name
order by col_1;`

按多个列排序

- `select col_1, col_2
from table_name
order by col_1, col_2;`

降序排序

- `select col_1
from table_name
order by col_1 desc;`

chapter 4

where子句

- select col_1
from table_name
where col_1 = xxx;

where操作符

操作符	说明
=	等于
<>	不等于
!=	不等于
<	小于
<=	小于等于
>	大于
>=	大于等于
between	两个值之间

between

- select col_1
from table_name
where col_1 between xxx and yyy;

空值检查

- select col_1
from table_name
where col_1 is null;

chapter 5

and操作符

- select col_1
from table_name

where `col_1 = xxx` and `col_2 = yyy`;

or操作符

- select `col_1`
from `table_name`
where `col_1 = xxx` or `col_2 = yyy`;

注意优先级，使用圆括号

in操作符

- select `col_1`
from `table_name`
where `col_1` in (`xxx, yyy`);

chapter 6

通配符

- select `col_1`
from `table_name`
where `col_1` like '`str`';

通配符	匹配字符数
%	任意个数,[0,+∞)
_	单个字符

正则表达式

- select `col_1`
from `table_name`
where `col_1` regexp '`pattern`';

chapter 7

文本处理函数

名称	作用
concat(str1,str2,...)	连接字段
length(str)	串的长度
locate(sub,str)	返回子串第一次出现的位置
substring()	返回子串字符
ltrim(str)	去掉串左边空格
rtrim(str)	去掉串右边空格
left()	返回串左边字符
right()	返回串右边字符
lower(str)	将串转为小写
upper(str)	将串转为大写
soundex(str)	返回soundex数值

聚集函数

名称	作用
avg()	平均值
count()	行数
max()	最大值
min()	最小值
sum()	总和

聚集不同的值(使用distinct)

- `select avg(distinct col_1)`
`from table_name;`

chapter 8

数据分组

- `select col_1, count(*)`

```
from table_name
group by col_1;
(以col_1分组，计算每组的行数)
```

过滤分组

- ```
select col_1, count(*)
from table_name
group by col_1
having count(*) = xxx;
```

## select子句顺序

| 子句       | 说明    |
|----------|-------|
| select   | 列或表达式 |
| from     | 检索的表  |
| where    | 行级过滤  |
| group by | 指定分组  |
| having   | 组级过滤  |
| order by | 排序    |
| limit    | 检索行数  |

---

## chapter X

---

### 插入完整的行

#### 依赖参数顺序

- ```
insert into table_name
values (param1, param2, param3);
```

不依赖参数顺序

- ```
insert into table_name
(col_1, col_2, col_3)
values (param1, param2, param3);
```

## 降低优先级

- insert low\_priority into

## 插入多个行

- insert into table\_name  
(col\_1, col\_2, col\_3)  
values (param1, param2, param3),  
(param1, param2, param3),  
(param1, param2, param3);

## 插入检索数据

- insert into table\_name  
(col\_1, col\_2, col\_3)  
select col\_1, col\_2, col\_3  
from table\_name;

---

## chapter XX

---

### 更新数据

- update table\_name  
set col\_1 = xxx  
where col\_2 = yyy;

### 删除数据

- delete table\_name  
where col\_1 = xxx;

### 删除所有数据

- truncate table table\_name;

---

## chapter XXX

---

### 创建表

---

```
create table table_name
(
 col_1 date_type null auto_increment,
 col_2 date_type null ,
 col_3 date_type not null ,
 primary key(col_1)
)engine=InnoDB;
```

## 更新表

### 添加一个列

- alter table `table_name`  
add `col_1` date\_type;

### 删除一个列

- alter table `table_name`  
drop column `col_1`;

## 删除表

- drop table `table_name`;

## 重命名表

- rename table `table_name` to `table_name_new`;

---

## chapter XXXX

### 执行存储过程

- call `_proc(@var1, @var2, @var3)`;

### 创建存储过程

```
delimiter //
create procedure _proc()
begin
 -- 子句
end //
```



```
delimiter ;
```

## 删除存储过程

- drop procedure `_proc` if exists;

## 使用参数

```
delimiter //
create procedure _proc(
 in param1 data_type,
 out var1 data_type,
)
begin
 -- 子句
 select avg(col_1)
 from table_name
 into var1;
end //
delimiter ;
```

---

## chapter XXXXX

---

### 用户表

- select user from user;

### 创建用户

- create user `user_name` identified by '`password`';

### 重命名用户

- rename user `user_name` to `user_name_new`;

### 删除用户

- drop user `user_name`;

### 显示权限

- show grants for `user_name`;

## 设置权限

- grant `privileges` on `area_name` to `user_name`;

| 层次设置    |
|---------|
| 整个服务器   |
| 整个数据库   |
| 特定的表    |
| 特定的列    |
| 特定的存储过程 |

## 撤销权限

- revoke `privileges` on `area_name` from `user_name`;

## 更改密码

- set password for `user_name` = password(`'password'`);