

## 1、主键约束，第一种方法。

进入数据库 holer，然后创建数据表 customerinfo，并将 id 设为主键。这是第一种方法。

```
mysql> use holer;
Database changed
mysql> create table customerinfo
-> (
-> customerid integer primary key,
-> customername varchar(12),
-> customerage integer,
-> customersex varchar(15),
-> customerrtel varchar(15),
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.29 sec)

mysql> alter table customerinfo
-> modify customersex varchar(4);
Query OK, 0 rows affected (0.15 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid     | int(11)       | NO   | PRI | NULL    |       |
| customername   | varchar(12)   | YES  |     | NULL    |       |
| customerage    | int(11)       | YES  |     | NULL    |       |
| customersex    | varchar(4)    | YES  |     | NULL    |       |
| customerrtel   | varchar(15)   | YES  |     | NULL    |       |
| remark         | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.08 sec)
```

## 2、主键约束，第二种方法。

在数据库 holer 中创建了第二个数据表 customerinfo，用第二种主键设置方法。然后查看该数据表。

```
mysql> create table customerinfo1
-> (
-> customerid integer,
-> customername varchar(12),
-> customerage integer,
-> customersex varchar(15),
-> customerrtel varchar(15),
-> remark varchar(200),
-> primary key(customerid)
-> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> desc customerinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
customername	varchar(12)	YES		NULL	
customerage	int(11)	YES		NULL	
customersex	varchar(4)	YES		NULL	
customerrtel	varchar(15)	YES		NULL	
remark	varchar(200)	YES		NULL	

```
6 rows in set (0.01 sec)
```

### 3、联合主键约束。

在数据库 hoteer 中创建第三个数据表 orderinfo, 并把 customerid 和 roomid 设置为联合主键。

```
mysql> create table orderinfo
-> (
-> customerid integer,
-> roomid integer,
-> checkindate datetime,
-> checkoutdate datetime,
-> amount numeric(7,2),
-> remark varchar(200),
-> primary key(customerid,roomid)
-> );
```

```
Query OK, 0 rows affected (0.15 sec)
```

```
mysql> desc orderinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	0	
roomid	int(11)	NO	PRI	0	
checkindate	datetime	YES		NULL	
checkoutdate	datetime	YES		NULL	
amount	decimal(7,2)	YES		NULL	
remark	varchar(200)	YES		NULL	

```
6 rows in set (0.01 sec)
```

4、给已经存在的数据表添加主键约束。

```
mysql> create table roominfo
-> <
-> roomid integer,
-> roomtypeid integer,
-> roomprice numeric(7,2),
-> roomstate varchar(2),
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.06 sec)

mysql> desc roominfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| roomid     | int(11)       | YES  |     | NULL    |      |
| roomtypeid | int(11)       | YES  |     | NULL    |      |
| roomprice  | decimal(7,2) | YES  |     | NULL    |      |
| roomstate  | varchar(2)    | YES  |     | NULL    |      |
| remark     | varchar(200) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.04 sec)

mysql> alter table roominfo
-> add constraint pk_roominfo primary key(roomid);
Query OK, 0 rows affected (0.43 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc roominfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| roomid     | int(11)       | NO   | PRI | 0        |      |
| roomtypeid | int(11)       | YES  |     | NULL    |      |
| roomprice  | decimal(7,2) | YES  |     | NULL    |      |
| roomstate  | varchar(2)    | YES  |     | NULL    |      |
| remark     | varchar(200) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

5、给已经存在的数据表添加联合主键约束。

```
mysql> alter table orderinfo  
-> add constraint pk_orderinfo primary key(customerid , orderid);
```

6、删除主键，数据库 hoter 中的其中一个数据表 customer 删除主键。

```
mysql> desc customerinfo;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| customerid    | int(11)       | NO   | PRI | NULL    |       |  
| customername  | varchar(12)   | YES  |     | NULL    |       |  
| customerage   | int(11)       | YES  |     | NULL    |       |  
| customersex   | varchar(4)    | YES  |     | NULL    |       |  
| customerrtel  | varchar(15)   | YES  |     | NULL    |       |  
| remark        | varchar(200)  | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.01 sec)  
  
mysql> alter table customerinfo  
-> drop primary key;  
Query OK, 0 rows affected (0.21 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> desc customerinfo;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| customerid    | int(11)       | NO   |     | NULL    |       |  
| customername  | varchar(12)   | YES  |     | NULL    |       |  
| customerage   | int(11)       | YES  |     | NULL    |       |  
| customersex   | varchar(4)    | YES  |     | NULL    |       |  
| customerrtel  | varchar(15)   | YES  |     | NULL    |       |  
| remark        | varchar(200)  | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.01 sec)
```

7、创建外键约束

```
+-----+
| Tables_in_hoter |
+-----+
| customerinfo    |
| customerinfo1  |
| orderinfo       |
+-----+
3 rows in set (0.00 sec)

mysql> create table typeinfo
-> (
-> roomtypeid integer,
-> roomtype varchar(20)
-> );
Query OK, 0 rows affected (0.08 sec)

mysql> create table roominfo
-> (
-> roomid int primary key,
-> roomtypeid int,
-> roomprice numeric(7,2),
-> roomstate varchar(2),
-> remark varchar(200),
-> constraint fk_roominfo foreign key(roomid) references typeinfo(roomtypeid)
-> );
```

## 8、删除外键

```
mysql> alter table customerinfo
-> drop foreign key fk_roomtypeid;
```

9、设置默认值约束，给数据库 hoter 创建了一个数据表 orderinfo，并给 amount 设置了默认值 0。

```
mysql> create table orderinfo
-> (
-> customerid integer,
-> orderid integer,
-> checkindate datetime,
-> checkoutdate datetime,
-> amount numeric(7,2) default 0,
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.27 sec)
```

```
mysql> desc orderinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | YES  |     | NULL    |      |
| orderid       | int(11)       | YES  |     | NULL    |      |
| checkindate   | datetime     | YES  |     | NULL    |      |
| checkoutdate | datetime     | YES  |     | NULL    |      |
| amount        | decimal(7,2) | YES  |     | 0.00    |      |
| remark        | varchar(200) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.08 sec)
```

## 10、修改默认值

```
mysql> desc orderinfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid | int(11)   | YES  |     | NULL    |       |
| orderid    | int(11)   | YES  |     | NULL    |       |
| checkindate | datetime  | YES  |     | NULL    |       |
| checkoutdate | datetime  | YES  |     | NULL    |       |
| amount     | decimal(7,2) | YES  |     | 0.00  |       |
| remark     | varchar(200) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.08 sec)

mysql> alter table orderinfo
-> alter amount set default 1;
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc orderinfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid | int(11)   | YES  |     | NULL    |       |
| orderid    | int(11)   | YES  |     | NULL    |       |
| checkindate | datetime  | YES  |     | NULL    |       |
| checkoutdate | datetime  | YES  |     | NULL    |       |
| amount     | decimal(7,2) | YES  |     | 1.00  |       |
| remark     | varchar(200) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)
```

给数据库 hoter 创建了一个数据表 orderinfo，并将 amount 的默认值修改为 1。

## 11、删除默认值



```
mysql> desc orderinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | YES  |     | NULL    |       |
| orderid       | int(11)       | YES  |     | NULL    |       |
| checkindate   | datetime     | YES  |     | NULL    |       |
| checkoutdate  | datetime     | YES  |     | NULL    |       |
| amount        | decimal(7,2) | YES  |     | 1.00    |       |
| remark        | varchar(200) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)

mysql> alter table orderinfo
-> alter amount drop default;
Query OK, 0 rows affected (0.06 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc orderinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | YES  |     | NULL    |       |
| orderid       | int(11)       | YES  |     | NULL    |       |
| checkindate   | datetime     | YES  |     | NULL    |       |
| checkoutdate  | datetime     | YES  |     | NULL    |       |
| amount        | decimal(7,2) | YES  |     | NULL    |       |
| remark        | varchar(200) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

将 amount 的默认值删除

## 12、设置非空约束

```
mysql> show tables;
+-----+
| Tables_in_hoter |
+-----+
| orderinfo       |
| typeinfo        |
+-----+
2 rows in set (0.00 sec)

mysql> create table customerinfo
-> (
-> customerid integer,
-> customername varchar(12) not null,
-> customerage integer,
-> customersex varchar(15),
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.09 sec)

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid | int(11)       | YES  |     | NULL    |       |
| customername | varchar(12)  | NO   |     | NULL    |       |
| customerage | int(11)       | YES  |     | NULL    |       |
| customersex | varchar(15)  | YES  |     | NULL    |       |
| remark      | varchar(200) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.09 sec)
```

目前在数据库 hoter 中，查看数据库 hoter 中的所有数据表，然后创建一个数据表 customerinfo，并给表中的 customername 设置非空约束。

### 13、修改表时添加非空约束

```
mysql> alter table customerinfo
-> alter customerage not null;
```

14、设置检出约束——列级检查约束

```
mysql> drop table customerinfo;
Query OK, 0 rows affected (0.05 sec)

mysql> create table customerinfo
-> (
-> customerid integer primary key,
-> customername varchar(12),
-> customerage integer check (customerage>=18),
-> customersex varchar(4),
-> customertel varchar(15),
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.11 sec)

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |      |
| customername  | varchar(12)   | YES  |     | NULL    |      |
| customerage   | int(11)       | YES  |     | NULL    |      |
| customersex   | varchar(4)    | YES  |     | NULL    |      |
| customertel   | varchar(15)   | YES  |     | NULL    |      |
| remark        | varchar(200)  | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)
```

15、设置检查约束——表级约束

```
mysql> create table customerinfo
-> (
-> customerid integer primary key,
-> customername varchar(12),
-> customerage integer,
-> customersex varchar(4),
-> customertel varchar(15),
-> remark varchar(200),
-> check(customerage>=18)
-> );
```

Query OK, 0 rows affected (0.09 sec)

```
mysql> desc customerinfo;
```

```
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |       |
| customername  | varchar(12)   | YES  |     | NULL    |       |
| customerage   | int(11)       | YES  |     | NULL    |       |
| customersex   | varchar(4)    | YES  |     | NULL    |       |
| customertel   | varchar(15)   | YES  |     | NULL    |       |
| remark        | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.02 sec)
```

## 16、修改表时添加检查约束

```
mysql> alter table customerinfo
-> add constraint chk_age check(customerage>=18);
```

## 17、设置唯一约束——第一种方法

```
mysql> create table customerinfo
-> (
-> customerid integer primary key,
-> customername varchar(12) unique,
-> customerage integer,
-> customersex varchar(4),
-> customertel varchar(15),
-> remark varchar(200)
-> );
Query OK, 0 rows affected (0.17 sec)
```

```
mysql> desc customerinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
customername	varchar(12)	YES	<u>UNI</u>	NULL	
customerage	int(11)	YES		NULL	
customersex	varchar(4)	YES		NULL	
customertel	varchar(15)	YES		NULL	
remark	varchar(200)	YES		NULL	

6 rows in set (0.07 sec)

## 18、设置唯一约束——第二种方法

```
mysql> drop table customerinfo;
Query OK, 0 rows affected (0.18 sec)

mysql> create table customerinfo
-> (
->   customerid integer primary key,
->   customername varchar(12),
->   customerage integer,
->   customersex varchar(4),
->   customertel varchar(15),
->   remark varchar(200),
->   unique(customername)
-> );
Query OK, 0 rows affected (0.09 sec)

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |       |
| customername  | varchar(12)   | YES  | UNI | NULL    |       |
| customerage   | int(11)       | YES  |     | NULL    |       |
| customersex   | varchar(4)    | YES  |     | NULL    |       |
| customertel   | varchar(15)   | YES  |     | NULL    |       |
| remark        | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

## 19、多个列设置唯一约束——列级

```
mysql> create table customerinfo
-> (
->  customerid integer primary key,
->  customername varchar(12) unique,
->  customerage integer unique,
->  customersex varchar(4),
->  customertel varchar(15),
->  remark varchar(200)
-> );
Query OK, 0 rows affected (0.11 sec)
```

```
mysql> desc customerinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
customername	varchar(12)	YES	<u>UNI</u>	NULL	
customerage	int(11)	YES	<u>UNI</u>	NULL	
customersex	varchar(4)	YES		NULL	
customertel	varchar(15)	YES		NULL	
remark	varchar(200)	YES		NULL	

6 rows in set (0.01 sec)

## 20、多个列设置唯一约束——表级

```
mysql> drop table customerinfo;
Query OK, 0 rows affected (0.19 sec)

mysql> create table customerinfo
-> (
->   customerid integer primary key,
->   customername varchar(12),
->   customerage integer,
->   customersex varchar(4),
->   customertel varchar(15),
->   remark varchar(200),
->   unique(customername),
->   unique(customerage)
-> );
Query OK, 0 rows affected (0.01 sec)

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |       |
| customername  | varchar(12)   | YES  | UNI | NULL    |       |
| customerage   | int(11)       | YES  | UNI | NULL    |       |
| customersex   | varchar(4)    | YES  |     | NULL    |       |
| customertel   | varchar(15)   | YES  |     | NULL    |       |
| remark        | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

## 21、多个列设置共同的唯一约束



```
mysql> create table customerinfo
-> (
->   customerid integer primary key,
->   customername varchar(12),
->   customerage integer,
->   customersex varchar(4),
->   customertel varchar(15),
->   remark varchar(200),
->   unique(customername, customerage)
-> );
Query OK, 0 rows affected (0.06 sec)
```

22、修改表时添加一个列的唯一约束

```
mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |       |
| customername  | varchar(12)   | YES  |     | NULL    |       |
| customerage   | int(11)       | YES  |     | NULL    |       |
| customersex   | varchar(4)    | YES  |     | NULL    |       |
| customertel   | varchar(15)   | YES  |     | NULL    |       |
| remark        | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)

mysql> alter table customerinfo
  -> add constraint uq_customerinfo unique(customertel);
Query OK, 0 rows affected (0.18 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid    | int(11)       | NO   | PRI | NULL    |       |
| customername  | varchar(12)   | YES  |     | NULL    |       |
| customerage   | int(11)       | YES  |     | NULL    |       |
| customersex   | varchar(4)    | YES  |     | NULL    |       |
| customertel   | varchar(15)   | YES  | UNI | NULL    |       |
| remark        | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

### 23、修改表时添加多个列的唯一约束

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid | int(11)       | NO   | PRI | NULL    |      |
| customername | varchar(12)  | YES  |     | NULL    |      |
| customerage | int(11)      | YES  |     | NULL    |      |
| customersex | varchar(4)    | YES  |     | NULL    |      |
| customertel | varchar(15)  | YES  |     | NULL    |      |
| remark      | varchar(200) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)

mysql> alter table customerinfo
  -> add constraint uq_customerinfo unique(customertel customername);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'cus
mername)' at line 2
mysql> alter table customerinfo
  -> add constraint uq_customerinfo unique(customertel, customername);
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> desc customerinfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerid | int(11)       | NO   | PRI | NULL    |      |
| customername | varchar(12)  | YES  |     | NULL    |      |
| customerage | int(11)      | YES  |     | NULL    |      |
| customersex | varchar(4)    | YES  |     | NULL    |      |
| customertel | varchar(15)  | YES  | MUL | NULL    |      |
| remark      | varchar(200) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

## 24、删除唯一约束

```
mysql> desc customerinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
customername	varchar(12)	YES		NULL	
customerage	int(11)	YES		NULL	
customersex	varchar(4)	YES		NULL	
customertel	varchar(15)	YES	UNI	NULL	
remark	varchar(200)	YES		NULL	

```
6 rows in set (0.01 sec)
```

```
mysql> drop index uq_customerinfo on customerinfo;
```

```
Query OK, 0 rows affected (0.13 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc customerinfo;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
customername	varchar(12)	YES		NULL	
customerage	int(11)	YES		NULL	
customersex	varchar(4)	YES		NULL	
customertel	varchar(15)	YES		NULL	
remark	varchar(200)	YES		NULL	

```
6 rows in set (0.01 sec)
```