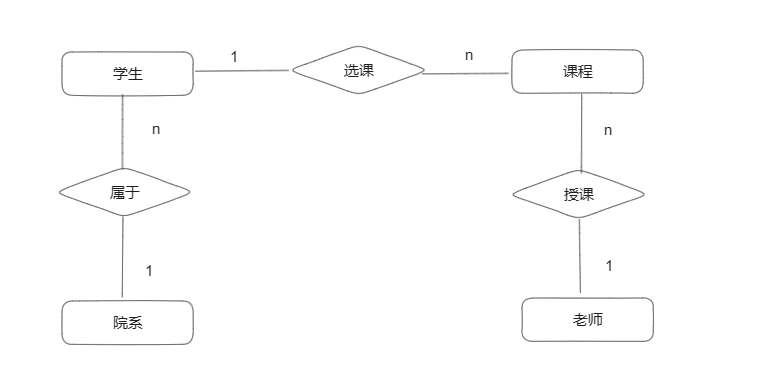
**2022级计算机网络技术专业**

**期末项目考试题**

**学号： 22652200036 姓名： 王俊 得分：**

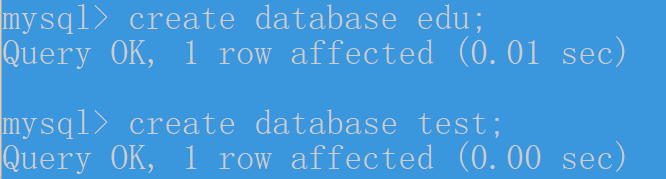
1. e-r图，不画属性



2.

（1）

Create database edu;



（2）

Create database test;



3.

（1）

系表

DROP TABLE IF EXISTS `dept`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `dept` (

`dname` varchar(20) NOT NULL,

`location` varchar(20) NOT NULL DEFAULT '自强楼',

PRIMARY KEY (`dname`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `dept`

--

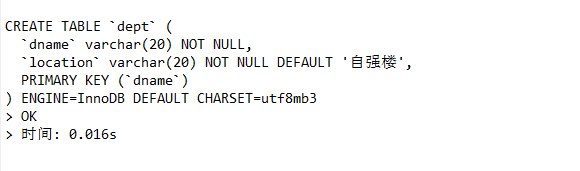
LOCK TABLES `dept` WRITE;

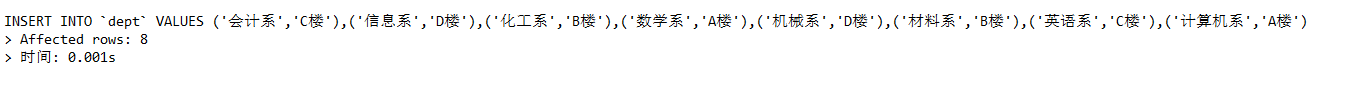
/\*!40000 ALTER TABLE `dept` DISABLE KEYS \*/;

INSERT INTO `dept` VALUES ('会计系','C楼'),('信息系','D楼'),('化工系','B楼'),('数学系','A楼'),('机械系','D楼'),('材料系','B楼'),('英语系','C楼'),('计算机系','A楼');

/\*!40000 ALTER TABLE `dept` ENABLE KEYS \*/;

UNLOCK TABLES;





学生表

DROP TABLE IF EXISTS `student`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `student` (

`sno` char(9) NOT NULL,

`sname` varchar(10) NOT NULL,

`sage` int NOT NULL,

`ssex` char(2) NOT NULL,

`sdept` varchar(20) DEFAULT NULL,

PRIMARY KEY (`sno`),

CONSTRAINT `student\_chk\_1` CHECK ((`ssex` in (\_utf8mb4'男',\_utf8mb4'女')))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `student`

--

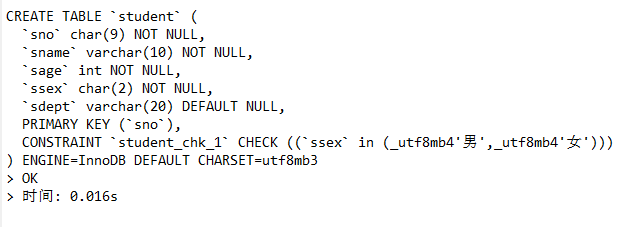
LOCK TABLES `student` WRITE;

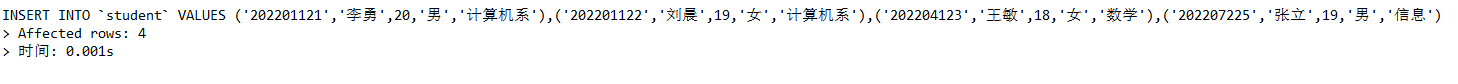
/\*!40000 ALTER TABLE `student` DISABLE KEYS \*/;

INSERT INTO `student` VALUES ('202201121','李勇',20,'男','计算机系'),('202201122','刘晨',19,'女','计算机系'),('202204123','王敏',18,'女','数学'),('202207225','张立',19,'男','信息');

/\*!40000 ALTER TABLE `student` ENABLE KEYS \*/;

UNLOCK TABLES;





教师表

DROP TABLE IF EXISTS `teacher`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `teacher` (

`tno` char(2) NOT NULL,

`tname` varchar(10) NOT NULL,

`tsex` char(2) NOT NULL,

`ttechnical` varchar(10) NOT NULL,

`tdept` varchar(20) DEFAULT NULL,

PRIMARY KEY (`tno`),

CONSTRAINT `teacher\_chk\_1` CHECK ((`tsex` in (\_utf8mb4'男',\_utf8mb4'女')))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `teacher`

--

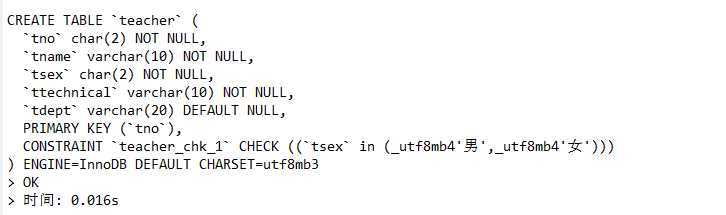
LOCK TABLES `teacher` WRITE;

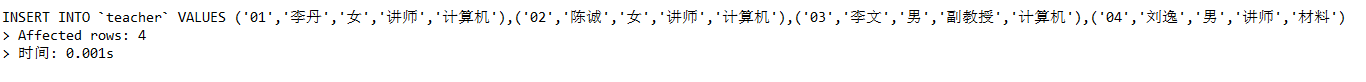
/\*!40000 ALTER TABLE `teacher` DISABLE KEYS \*/;

INSERT INTO `teacher` VALUES ('01','李丹','女','讲师','计算机'),('02','陈诚','女','讲师','计算机'),('03','李文','男','副教授','计算机'),('04','刘逸','男','讲师','材料');

/\*!40000 ALTER TABLE `teacher` ENABLE KEYS \*/;

UNLOCK TABLES;





课程表

DROP TABLE IF EXISTS `course`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `course` (

`cno` char(2) NOT NULL,

`cname` varchar(10) NOT NULL,

`cpno` char(2) DEFAULT NULL,

`ccredit` int NOT NULL,

PRIMARY KEY (`cno`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `course`

--

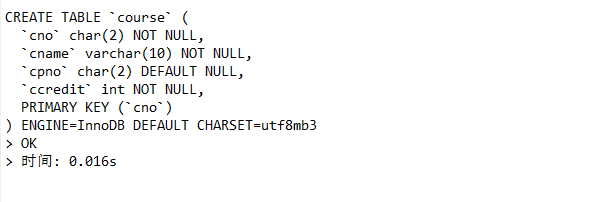
LOCK TABLES `course` WRITE;

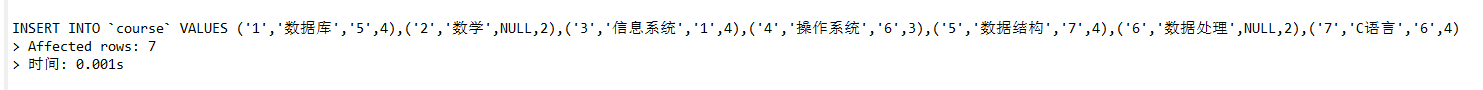
/\*!40000 ALTER TABLE `course` DISABLE KEYS \*/;

INSERT INTO `course` VALUES ('1','数据库','5',4),('2','数学',NULL,2),('3','信息系统','1',4),('4','操作系统','6',3),('5','数据结构','7',4),('6','数据处理',NULL,2),('7','C语言','6',4);

/\*!40000 ALTER TABLE `course` ENABLE KEYS \*/;

UNLOCK TABLES;





选课表

DROP TABLE IF EXISTS `sc`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `sc` (

`sno` char(9) NOT NULL,

`cno` char(2) NOT NULL,

`grade` float DEFAULT NULL,

PRIMARY KEY (`sno`,`cno`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `sc`

--

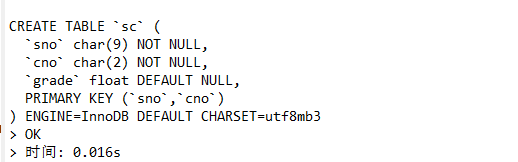
LOCK TABLES `sc` WRITE;

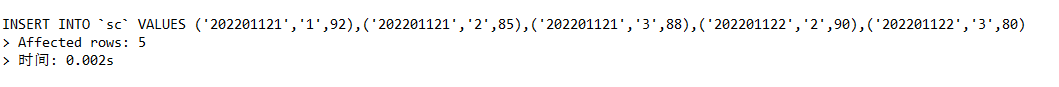
/\*!40000 ALTER TABLE `sc` DISABLE KEYS \*/;

INSERT INTO `sc` VALUES ('202201121','1',92),('202201121','2',85),('202201121','3',88),('202201122','2',90),('202201122','3',80);

/\*!40000 ALTER TABLE `sc` ENABLE KEYS \*/;

UNLOCK TABLES;





讲授表

DROP TABLE IF EXISTS `tc`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `tc` (

`tno` char(2) NOT NULL,

`cno` char(2) NOT NULL,

`start\_date` date NOT NULL,

PRIMARY KEY (`tno`,`cno`,`start\_date`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb3;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `tc`

--

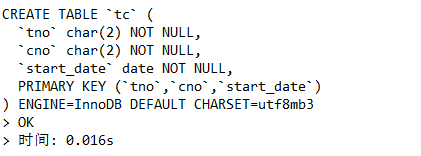
LOCK TABLES `tc` WRITE;

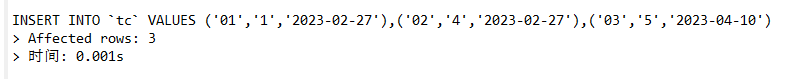
/\*!40000 ALTER TABLE `tc` DISABLE KEYS \*/;

INSERT INTO `tc` VALUES ('01','1','2023-02-27'),('02','4','2023-02-27'),('03','5','2023-04-10');

/\*!40000 ALTER TABLE `tc` ENABLE KEYS \*/;

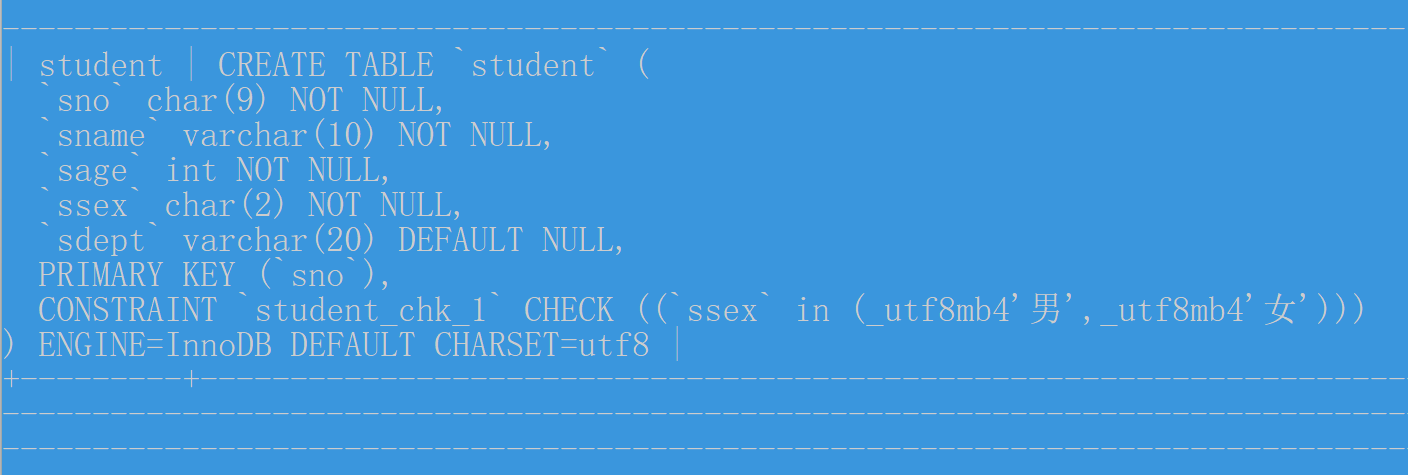
UNLOCK TABLES;





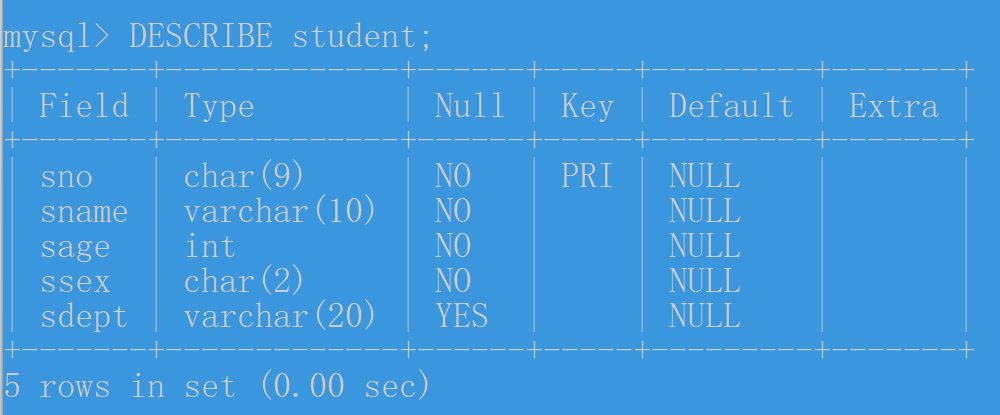
（2）查看student表的定义语句

SHOW CREATE TABLE student;



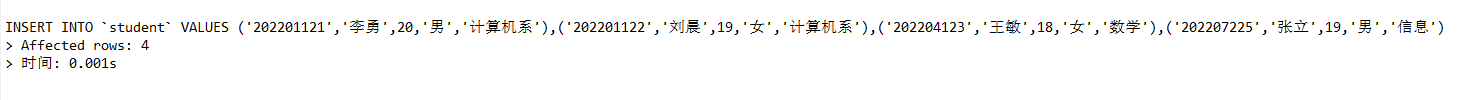
（3）查看student表各属性信息

DESCRIBE student;

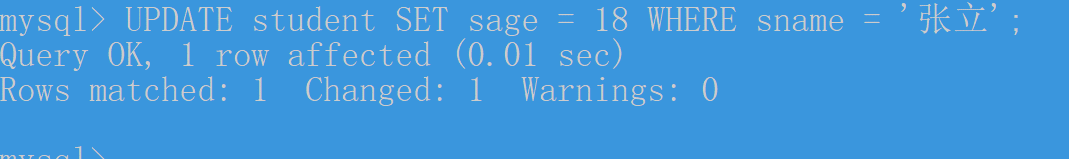


4. 数据更新操作

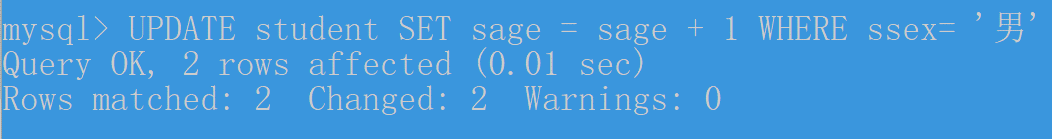
（1）INSERT INTO `student` VALUES ('202201121','李勇',20,'男','计算机系'),('202201122','刘晨',19,'女','计算机系'),('202204123','王敏',18,'女','数学'),('202207225','张立',19,'男','信息');



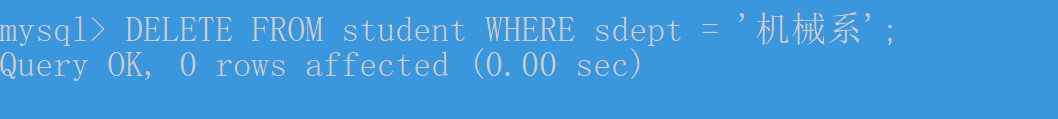
(2) UPDATE student SET sage = 18 WHERE sname = '张立';



(3) UPDATE student SET sage = sage + 1 WHERE ssex= '男';

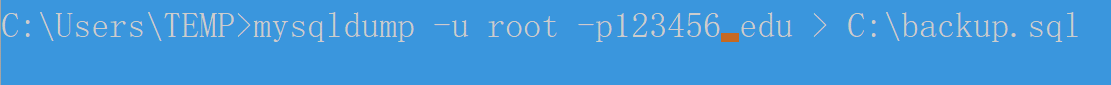


(4) DELETE FROM student WHERE sdept = '机械系';

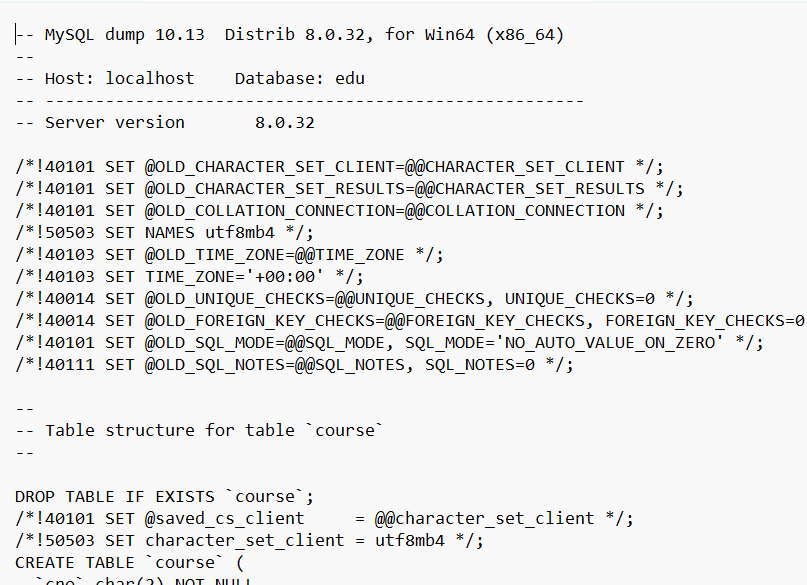


5.

(1) mysqldump -u root -p123456 edu > C:\backup.sql

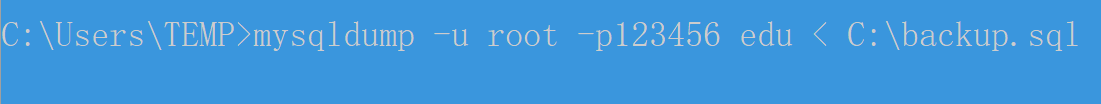


文件内容



(2) DROP DATABASE edu;

mysqldump -u root -p123456 edu < C:\backup.sql



6.

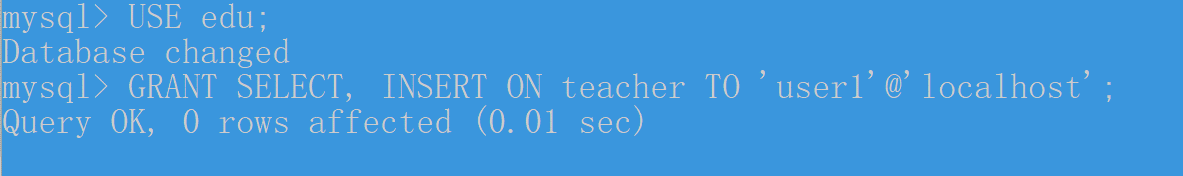
(1) CREATE USER 'user1'@'localhost' IDENTIFIED BY '54321';



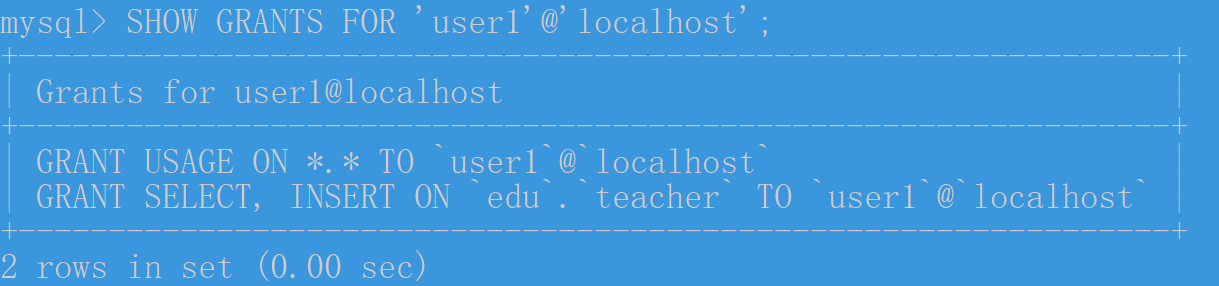
(2) ALTER USER 'user1'@'localhost' IDENTIFIED BY '98765';



(3) GRANT SELECT, INSERT ON teacher TO 'user1'@'localhost';

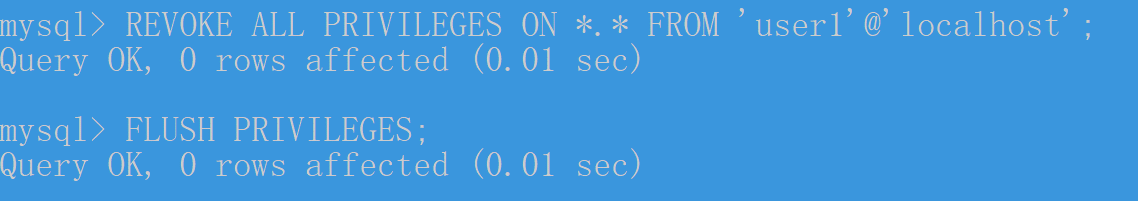


(4) SHOW GRANTS FOR 'user1'@'localhost';



(5) REVOKE ALL PRIVILEGES ON \*.\* FROM 'user1'@'localhost';

FLUSH PRIVILEGES;

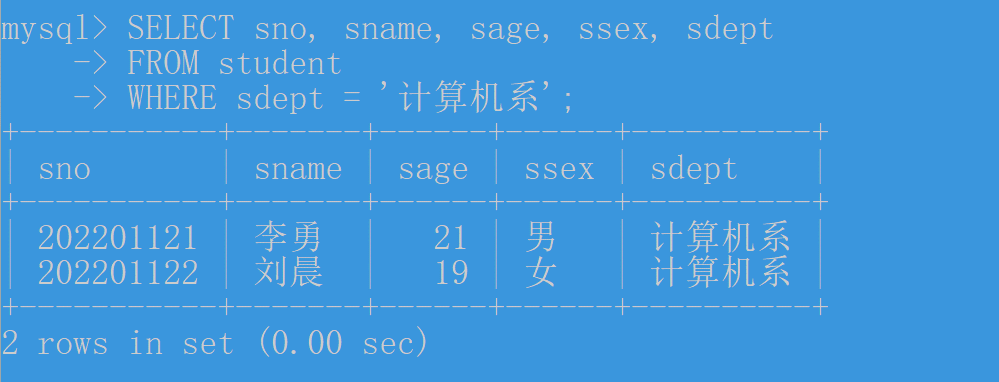


7.

（1）SELECT sno, sname, sage, ssex, sdept

FROM student

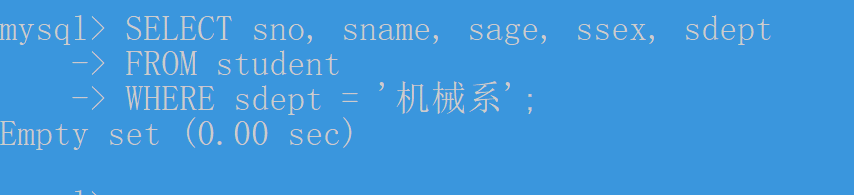
WHERE sdept = '计算机系';



SELECT sno, sname, sage, ssex, sdept

FROM student

WHERE sdept = '机械系';



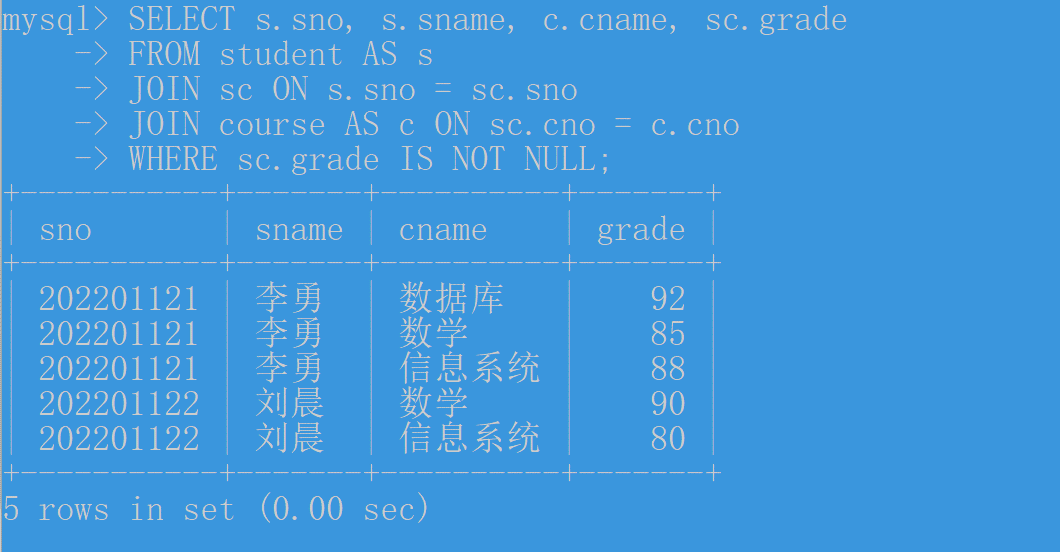
（2）SELECT s.sno, s.sname, c.cname, sc.grade

FROM student AS s

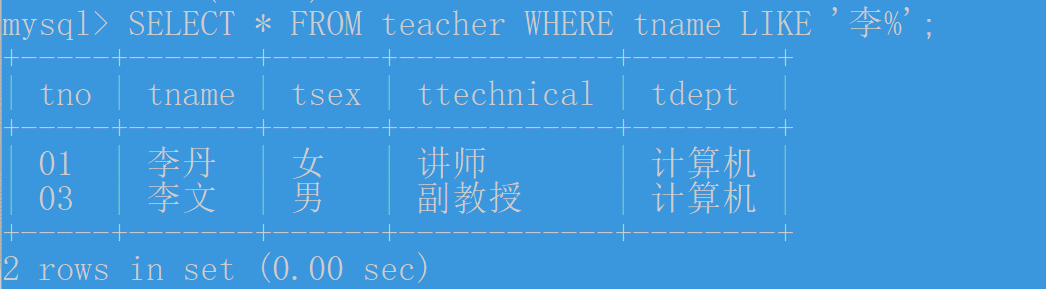
JOIN sc ON s.sno = sc.sno

JOIN course AS c ON sc.cno = c.cno

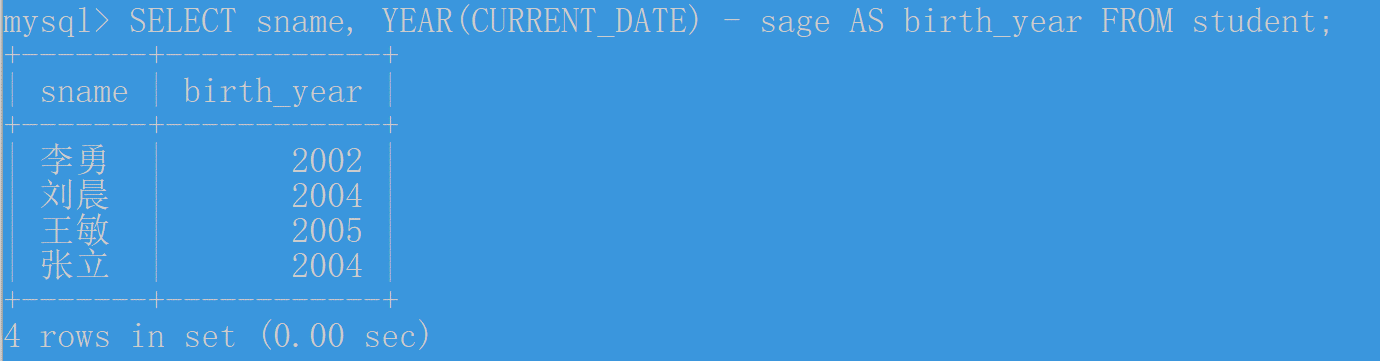
WHERE sc.grade IS NOT NULL;

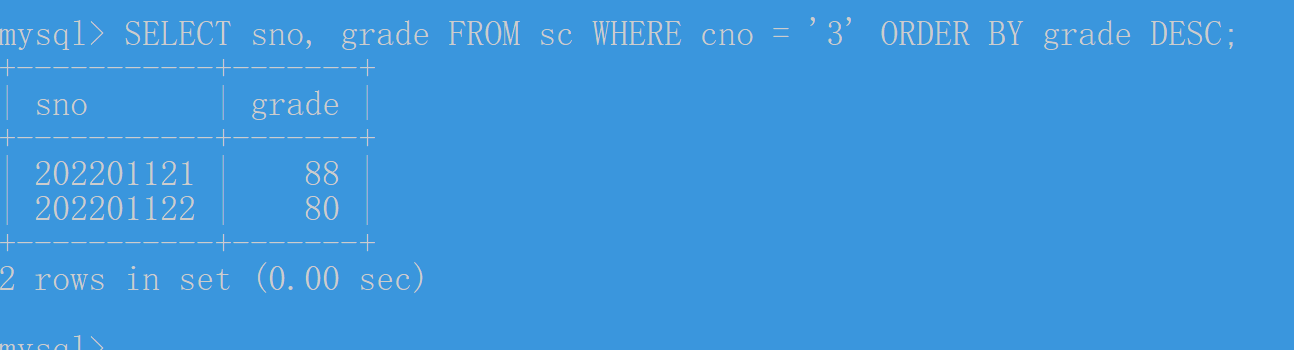


（3）SELECT \* FROM teacher WHERE tname LIKE '李%';

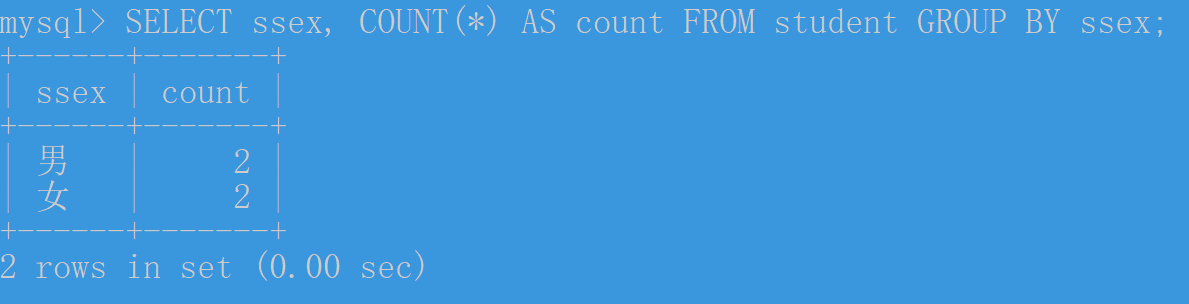


（4）SELECT sname, YEAR(CURRENT\_DATE) - sage AS birth\_year FROM student;

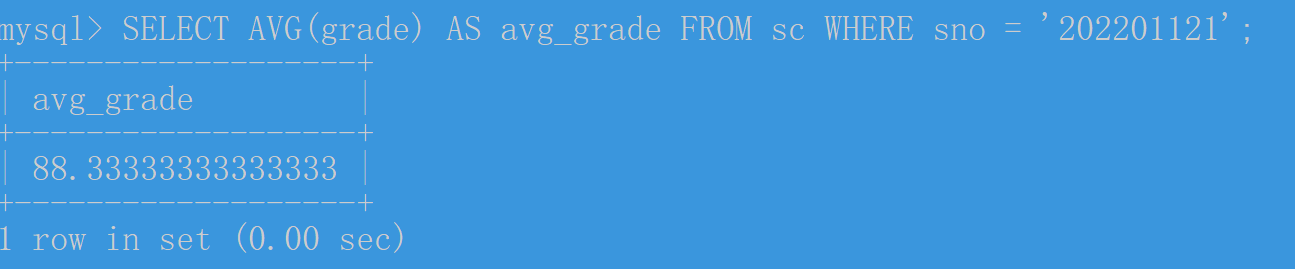


（5）SELECT sno, grade FROM sc WHERE cno = '3' ORDER BY grade DESC; 

（6）SELECT ssex, COUNT(\*) AS count FROM student GROUP BY ssex;



（7）SELECT AVG(grade) AS avg\_grade FROM sc WHERE sno = '202201121';



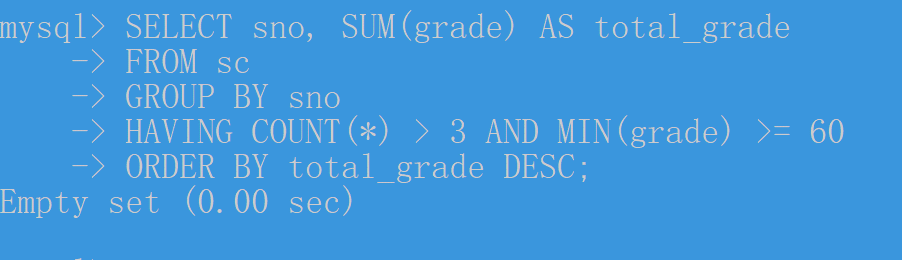
（8）SELECT sno, SUM(grade) AS total\_grade

FROM sc

GROUP BY sno

HAVING COUNT(\*) > 3 AND MIN(grade) >= 60

ORDER BY total\_grade DESC;



（9）SELECT cpno AS prerequisite\_of\_prerequisite

FROM course

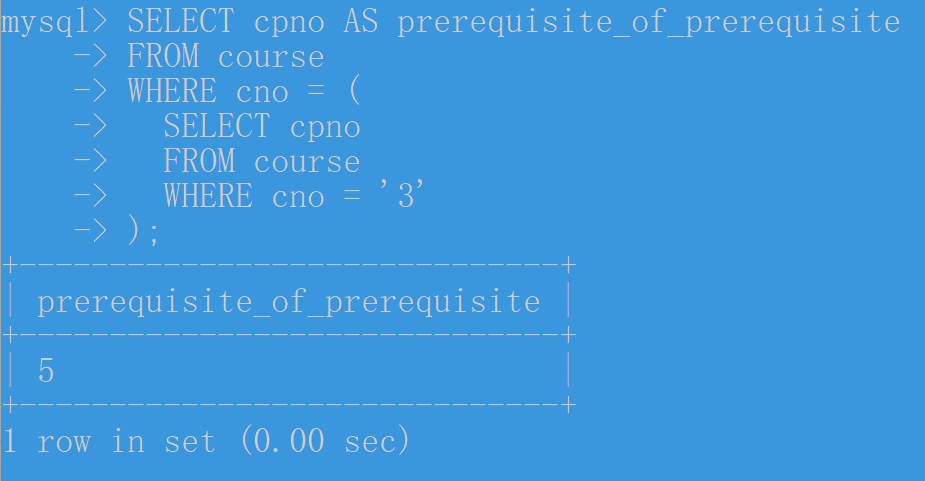
WHERE cno = (

SELECT cpno

FROM course

WHERE cno = '3'

);



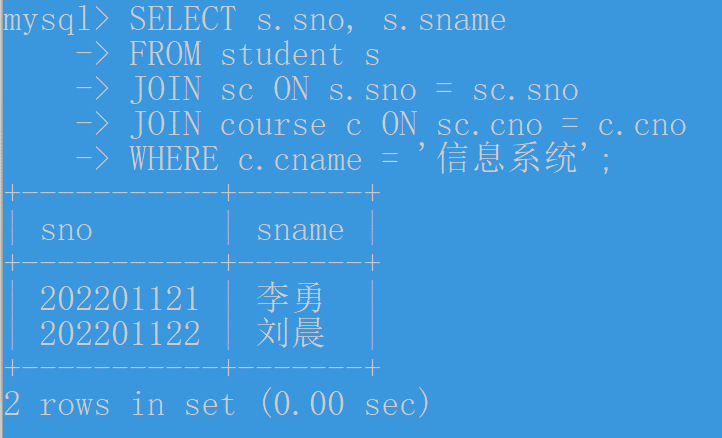
（10）SELECT s.sno, s.sname

FROM student s

JOIN sc ON s.sno = sc.sno

JOIN course c ON sc.cno = c.cno

WHERE c.cname = '信息系统';



（11）SELECT sc1.sno, sc2.cno

FROM sc sc1

JOIN sc sc2 ON sc1.sno = sc2.sno

GROUP BY sc1.sno, sc2.cno

HAVING AVG(sc2.grade) > (

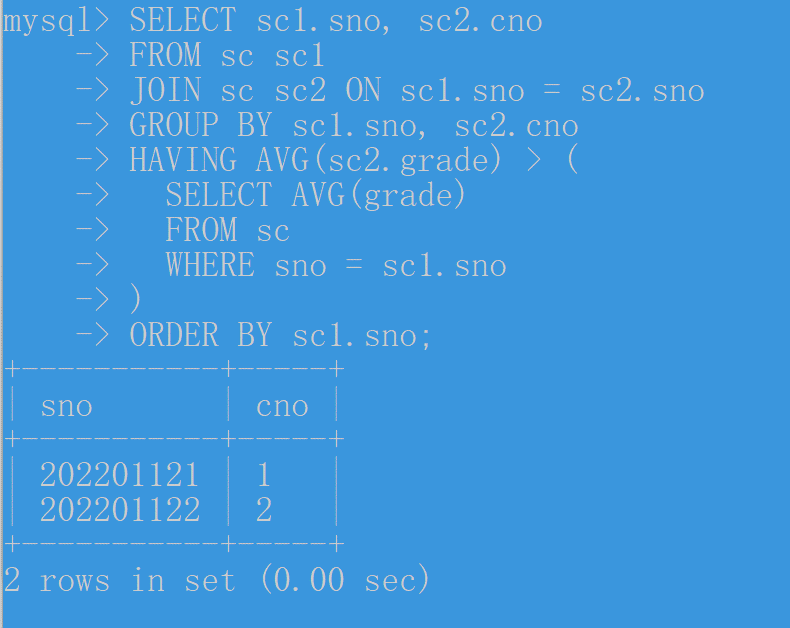
SELECT AVG(grade)

FROM sc

WHERE sno = sc1.sno

)

ORDER BY sc1.sno;



（12） SELECT s.sname

FROM student s

WHERE NOT EXISTS (

SELECT cno

FROM course

WHERE NOT EXISTS (

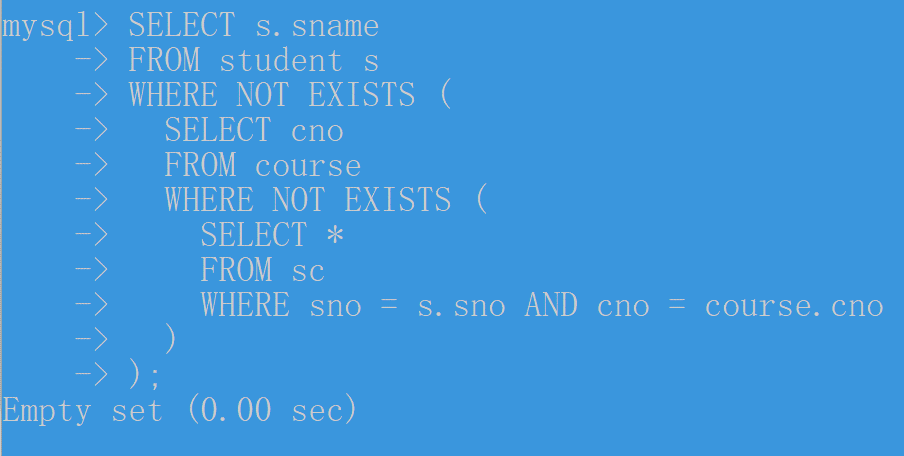
SELECT \*

FROM sc

WHERE sno = s.sno AND cno = course.cno

)

);



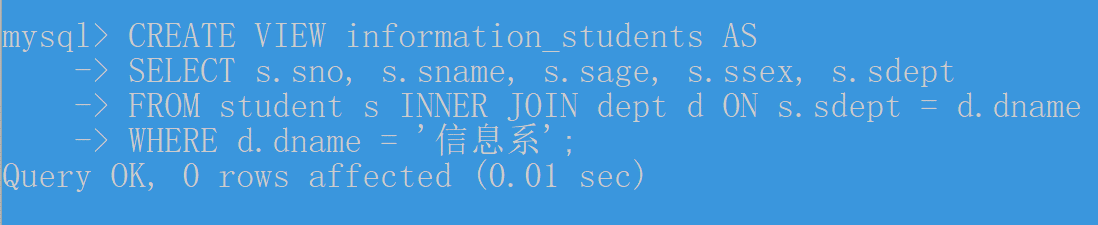
8.

（1）CREATE VIEW information\_students AS

SELECT s.sno, s.sname, s.sage, s.ssex, s.sdept

FROM student s INNER JOIN dept d ON s.sdept = d.dname

WHERE d.dname = '信息系';



（2）CREATE VIEW information\_course1\_students AS

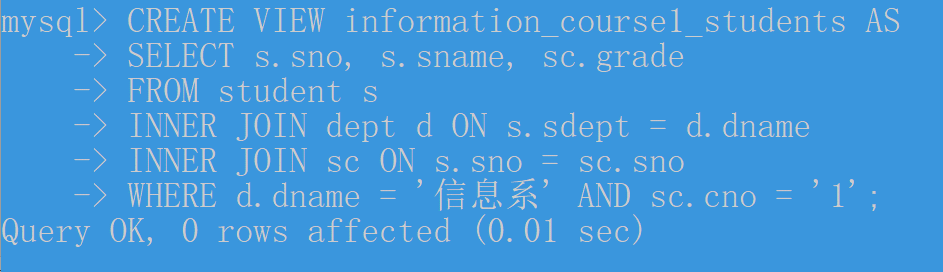
SELECT s.sno, s.sname, sc.grade

FROM student s

INNER JOIN dept d ON s.sdept = d.dname

INNER JOIN sc ON s.sno = sc.sno

WHERE d.dname = '信息系' AND sc.cno = '1';



9.

（1）DELIMITER //

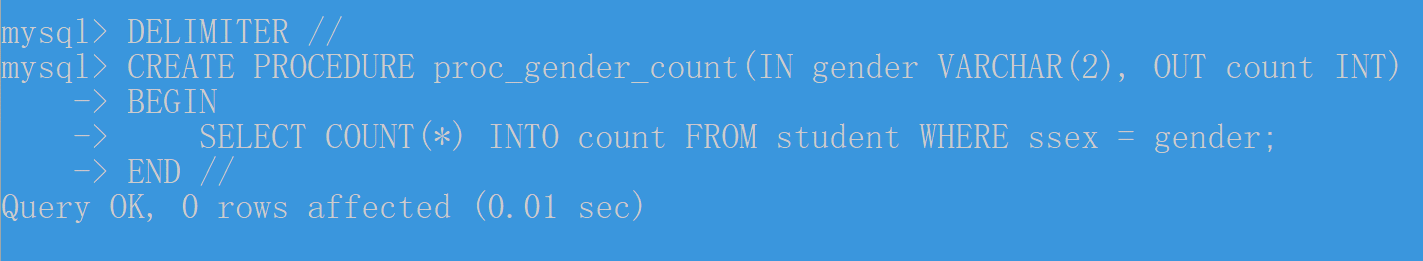
CREATE PROCEDURE proc\_gender\_count(IN gender VARCHAR(2), OUT count INT)

BEGIN

SELECT COUNT(\*) INTO count FROM student WHERE ssex = gender;

END //

DELIMITER ;



（2）DELIMITER //

CREATE FUNCTION func\_get\_name(sno CHAR(9)) RETURNS VARCHAR(10)

BEGIN

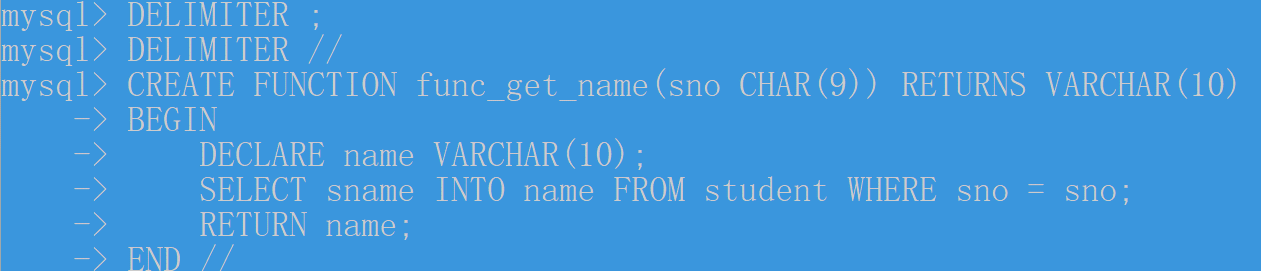
DECLARE name VARCHAR(10);

SELECT sname INTO name FROM student WHERE sno = sno;

RETURN name;

END //

DELIMITER ;



（3）CREATE TABLE trigger\_test (

id INT AUTO\_INCREMENT,

mark VARCHAR(10),

PRIMARY KEY (id)

);

DELIMITER //

CREATE TRIGGER tri\_insert\_student

BEFORE INSERT ON student

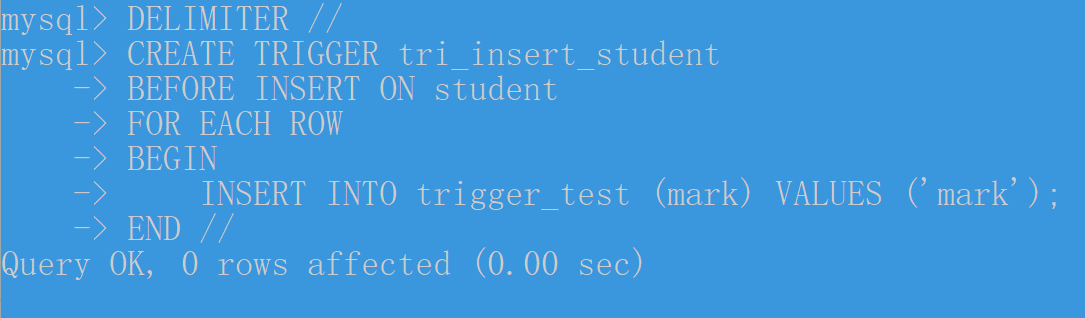
FOR EACH ROW

BEGIN

INSERT INTO trigger\_test (mark) VALUES ('mark');

END //

DELIMITER ;



（4）DELIMITER //

CREATE FUNCTION func\_calculate\_total\_grade(sno CHAR(9)) RETURNS FLOAT

BEGIN

DECLARE total\_grade FLOAT;

SET total\_grade = 0;

DECLARE done INT DEFAULT FALSE;

DECLARE cur CURSOR FOR SELECT grade FROM sc WHERE sno = sno;

DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

OPEN cur;

read\_loop: LOOP

FETCH cur INTO total\_grade;

IF done THEN

LEAVE read\_loop;

END IF;

SET total\_grade = total\_grade + total\_grade;

END LOOP;

CLOSE cur;

RETURN total\_grade;

END //

DELIMITER ;

