mysql> create database shiyan;

Query OK, 1 row affected (0.00 sec)

mysql> use shiyan;

Database changed

mysql> CREATE TABLE class (

-> cid int(11) NOT NULL AUTO\_INCREMENT,

-> caption varchar(32) NOT NULL,

-> PRIMARY KEY (cid)

-> ) ENGINE=InnoDB CHARSET=utf8;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 3

Current database: shiyan

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> INSERT INTO class VALUES

-> (1, '三年二班'),

-> (2, '三年三班'),

-> (3, '一年二班'),

-> (4, '二年九班');

Query OK, 4 rows affected (0.01 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql>

mysql> CREATE TABLE teacher(

-> tid int(11) NOT NULL AUTO\_INCREMENT,

-> tname varchar(32) NOT NULL,

-> PRIMARY KEY (tid)

-> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;

Query OK, 0 rows affected (0.00 sec)

mysql>

mysql> INSERT INTO teacher VALUES

-> (1, '张磊老师'),

-> (2, '李平老师'),

-> (3, '刘海燕老师'),

-> (4, '朱云海老师'),

-> (5, '李杰老师');

Query OK, 5 rows affected (0.00 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql>

mysql>

mysql> CREATE TABLE course(

-> cid int(11) NOT NULL AUTO\_INCREMENT,

-> cname varchar(32) NOT NULL,

-> teacher\_id int(11) NOT NULL,

-> PRIMARY KEY (cid),

-> KEY fk\_course\_teacher (teacher\_id),

-> CONSTRAINT fk\_course\_teacher FOREIGN KEY (teacher\_id) REFERENCES teacher (tid)

-> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> INSERT INTO course VALUES

-> (1, '生物', 1),

-> (2, '物理', 2),

-> (3, '体育', 3),

-> (4, '美术', 2);

Query OK, 4 rows affected (0.00 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql>

mysql> CREATE TABLE student(

-> sid int(11) NOT NULL AUTO\_INCREMENT,

-> gender char(1) NOT NULL,

-> class\_id int(11) NOT NULL,

-> sname varchar(32) NOT NULL,

-> PRIMARY KEY (sid),

-> KEY fk\_class (class\_id),

-> CONSTRAINT fk\_class FOREIGN KEY (class\_id) REFERENCES class (cid)

-> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> INSERT INTO student VALUES

-> (1, '男', 1, '理解'),

-> (2, '女', 1, '钢蛋'),

-> (3, '男', 1, '张三'),

-> (4, '男', 1, '张一'),

-> (5, '女', 1, '张二'),

-> (6, '男', 1, '张四'),

-> (7, '女', 2, '铁锤'),

-> (8, '男', 2, '李三'),

-> (9, '男', 2, '李一'),

-> (10, '女', 2, '李二'),

-> (11, '男', 2, '李四'),

-> (12, '女', 3, '如花'),

-> (13, '男', 3, '刘三'),

-> (14, '男', 3, '刘一'),

-> (15, '女', 3, '刘二'),

-> (16, '男', 3, '刘四');

Query OK, 16 rows affected (0.00 sec)

Records: 16 Duplicates: 0 Warnings: 0

mysql>

mysql>

mysql> CREATE TABLE score (

-> sid int(11) NOT NULL AUTO\_INCREMENT,

-> student\_id int(11) NOT NULL,

-> course\_id int(11) NOT NULL,

-> num int(11) NOT NULL,

-> PRIMARY KEY (sid),

-> KEY fk\_score\_student (student\_id),

-> KEY fk\_score\_course (course\_id),

-> CONSTRAINT fk\_score\_course FOREIGN KEY (course\_id) REFERENCES course (cid),

-> CONSTRAINT fk\_score\_student FOREIGN KEY (student\_id) REFERENCES student(sid)

-> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> INSERT INTO score VALUES

-> (1, 1, 1, 10),

-> (2, 1, 2, 9),

-> (5, 1, 4, 66),

-> (6, 2, 1, 8),

-> (8, 2, 3, 68),

-> (9, 2, 4, 99),

-> (10, 3, 1, 77),

-> (11, 3, 2, 66),

-> (12, 3, 3, 87),

-> (13, 3, 4, 99),

-> (14, 4, 1, 79),

-> (15, 4, 2, 11),

-> (16, 4, 3, 67),

-> (17, 4, 4, 100),

-> (18, 5, 1, 79),

-> (19, 5, 2, 11),

-> (20, 5, 3, 67),

-> (21, 5, 4, 100),

-> (22, 6, 1, 9),

-> (23, 6, 2, 100),

-> (24, 6, 3, 67),

-> (25, 6, 4, 100),

-> (26, 7, 1, 9),

-> (27, 7, 2, 100),

-> (28, 7, 3, 67),

-> (29, 7, 4, 88),

-> (30, 8, 1, 9),

-> (31, 8, 2, 100),

-> (32, 8, 3, 67),

-> (33, 8, 4, 88),

-> (34, 9, 1, 91),

-> (35, 9, 2, 88),

-> (36, 9, 3, 67),

-> (37, 9, 4, 22),

-> (38, 10, 1, 90),

-> (39, 10, 2, 77),

-> (40, 10, 3, 43),

-> (41, 10, 4, 87),

-> (42, 11, 1, 90),

-> (43, 11, 2, 77),

-> (44, 11, 3, 43),

-> (45, 11, 4, 87),

-> (46, 12, 1, 90),

-> (47, 12, 2, 77),

-> (48, 12, 3, 43),

-> (49, 12, 4, 87),

-> (52, 13, 3, 87);

Query OK, 47 rows affected (0.00 sec)

Records: 47 Duplicates: 0 Warnings: 0

mysql> show tables;

+------------------+

| Tables\_in\_shiyan |

+------------------+

| class |

| course |

| score |

| student |

| teacher |

+------------------+

5 rows in set (0.00 sec)

mysql> select course.cname teacher.tname from course join teacher course.teach\_id=teacher.tid;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 4

Current database: shiyan

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 '.tname from course join teacher course.teach\_id=teacher.tid' at line 1

mysql> select course.cname teacher.tname from course join teacher course.teacher\_id=teacher.tid;

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 '.tname from course join teacher course.teacher\_id=teacher.tid' at line 1

mysql> select course.cname,teacher.tname from course join teacher course.teacher\_id=teacher.tid;

ERROR 1066 (42000): Not unique table/alias: 'course'

mysql> select course.cname,teacher.tname from course inner join teacher course.teacher\_id=teacher.tid;

ERROR 1066 (42000): Not unique table/alias: 'course'

mysql> select course.cname,teacher.tname from course inner join teacher on course.teacher\_id=teacher.tid;

ERROR 2013 (HY000): Lost connection to MySQL server during query

mysql> select course.cname,teacher.tname from course inner join teacher on course.teacher\_id=teacher.tid;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 5

Current database: shiyan

+--------+-----------------+

| cname | tname |

+--------+-----------------+

| 生物 | 张磊老师 |

| 物理 | 李平老师 |

| 体育 | 刘海燕老师 |

| 美术 | 李平老师 |

+--------+-----------------+

4 rows in set (0.00 sec)

mysql> select gender from student group by gender;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 6

Current database: shiyan

+--------+

| gender |

+--------+

| 女 |

| 男 |

+--------+

2 rows in set (0.01 sec)

mysql> select gender count(1) from student group by gender;

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 'count(1) from student group by gender' at line 1

mysql> select gender,count(1) from student group by gender;

+--------+----------+

| gender | count(1) |

+--------+----------+

| 女 | 6 |

| 男 | 10 |

+--------+----------+

2 rows in set (0.00 sec)

mysql> select student.sname from student where sid in(select student\_id from score join course on score.course=course.cid where course.cname="物理" and score.num=100);

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 7

Current database: shiyan

ERROR 1054 (42S22): Unknown column 'score.course' in 'on clause'

mysql> select student.sname from student where sid in(select student\_id from score join course on score.course=course.cid where course.cname="物理" and score.num=100);

ERROR 1054 (42S22): Unknown column 'score.course' in 'on clause'

mysql> select student.sname from student where sid in(select student\_id from score join course on score.course id=course.cid where course.cname="物理" and score.num=100);

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 'id=course.cid where course.cname="物理" and score.num=100)' at line 1

mysql> select student.sname from student where sid in(select student\_id from score join course on score.course id=course.cid where course.cname='物理' and score.num=100);

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 'id=course.cid where course.cname='物理' and score.num=100)' at line 1

mysql> select student.sname from student where sid in(select student\_id from score join course on score.course\_id=course.cid where course.cname='物理' and score.num=100);

+--------+

| sname |

+--------+

| 张四 |

| 铁锤 |

| 李三 |

+--------+

3 rows in set (0.00 sec)

mysql> use shiyan;

No connection. Trying to reconnect...

Connection id: 3

Current database: \*\*\* NONE \*\*\*

Database changed

mysql> select student.name,t1.avg\_num from student join(select student\_id,avg(num) as avg\_num from score group by student\_id having avg(num)>80) as t1 on student.sid=t1.student\_id;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 4

Current database: shiyan

ERROR 1054 (42S22): Unknown column 'student.name' in 'field list'

mysql> select student.sname,t1.avg\_num from student join(select student\_id,avg(num) as avg\_num from score group by student\_id having avg(num)>80) as t1 on student.sid=t1.student\_id;

+--------+---------+

| sname | avg\_num |

+--------+---------+

| 张三 | 82.2500 |

| 刘三 | 87.0000 |

+--------+---------+

2 rows in set (0.00 sec)

mysql> select count(tid) from teacher where tname like '李%';

ERROR 2013 (HY000): Lost connection to MySQL server during query

mysql> select count(tid) from teacher where tname like '李%';

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 5

Current database: shiyan

+------------+

| count(tid) |

+------------+

| 2 |

+------------+

1 row in set (0.01 sec)

mysql> select student.sid,student.sname,t1.course\_num,t1.total\_num from student left join(select student\_id,count(course\_id)course\_num,sum(num)total\_num from score group by student\_id) as t1 on student.sid=t1.student\_id;

ERROR 2006 (HY000): MySQL server has gone away

No connection. Trying to reconnect...

Connection id: 6

Current database: shiyan

+-----+--------+------------+-----------+

| sid | sname | course\_num | total\_num |

+-----+--------+------------+-----------+

| 1 | 理解 | 3 | 85 |

| 2 | 钢蛋 | 3 | 175 |

| 3 | 张三 | 4 | 329 |

| 4 | 张一 | 4 | 257 |

| 5 | 张二 | 4 | 257 |

| 6 | 张四 | 4 | 276 |

| 7 | 铁锤 | 4 | 264 |

| 8 | 李三 | 4 | 264 |

| 9 | 李一 | 4 | 268 |

| 10 | 李二 | 4 | 297 |

| 11 | 李四 | 4 | 297 |

| 12 | 如花 | 4 | 297 |

| 13 | 刘三 | 1 | 87 |

| 14 | 刘一 | NULL | NULL |

| 15 | 刘二 | NULL | NULL |

| 16 | 刘四 | NULL | NULL |

+-----+--------+------------+-----------+

16 rows in set (0.00 sec)