# 实验6 综合实验——选课系统综合查询

## 6.1 实验目的

使用select语句完成该系统复杂的统计信息。

## 6.2 实验内容和要求

一、创建数据库及表

2、创建学生表student

3、创建选课表choose

4、创建课程表course

Create Table Student

( Sno CHAR(5) NOT NULL, PRIMARY KEY(Sno),

Sname VARCHAR(20),

Sage SMALLINT CHECK(Sage>=15 AND Sage<=45),

Ssex CHAR(8) DEFAULT 'man' CHECK (Ssex='man' OR Ssex='woman'),

Sdept CHAR(2));

Create Table Course

( Cno CHAR(2) NOT NULL, PRIMARY KEY(Cno),

Cname VARCHAR(20),

Cpno CHAR(2),

Ccredit SMALLINT);

Create Table SC

( Sno CHAR(5) NOT NULL, CONSTRAINT S\_F FOREIGN KEY(Sno) REFERENCES Student(Sno),

Cno CHAR(2) NOT NULL,

Grade SMALLINT CHECK ((Grade IS NULL) OR (Grade BETWEEN 0 AND 100)),

PRIMARY KEY(Sno,Cno),

FOREIGN KEY(Cno) REFERENCES Course(Cno));

INSERT INTO Student VALUES('5120150001','QH',18,'man','CS');

INSERT INTO Student VALUES('5120150002','WL',19,'woman','CS');

INSERT INTO Student VALUES('5120150003','LM',20,'man','IS');

INSERT INTO Student VALUES('5120150004','SDC',19,'woman','IS');

INSERT INTO Student VALUES('5120150005','ERS',21,'man','IS');

INSERT INTO Student VALUES('5120150006','HRD',18,'man','MA');

INSERT INTO Student VALUES('5120150007','XYK',17,'woman','MA');

INSERT INTO Student VALUES('5120150008','RB',19,'man','MA');

INSERT INTO Student VALUES('5120150009','DL',19,'woman','MA');

INSERT INTO Student VALUES('5220150008','RB',19,'man','MA');

INSERT INTO Student VALUES('5220150009','DL',19,'woman','MA');

INSERT INTO Student VALUES('5220150018','RB',19,'man','MA');

INSERT INTO Student VALUES('5320150009','DL',19,'woman','MA');

INSERT INTO Course VALUES('1','SJKXT', '5',4);

INSERT INTO Course VALUES('2','SXFX',null ,2);

INSERT INTO Course VALUES('3','XXXTDL','1',3);

INSERT INTO Course VALUES('4','CZXTYL','6',3);

INSERT INTO Course VALUES('5','SJKJG','7',4);

INSERT INTO Course VALUES('6','SJCLJC',null,4);

INSERT INTO Course VALUES('7','CProgram','6',3);

INSERT INTO SC VALUES('5120150002','1',87);

INSERT INTO SC VALUES('5120150002','2',67);

INSERT INTO SC VALUES('5120150002','3',90);

INSERT INTO SC VALUES('5120150003','2',95);

INSERT INTO SC VALUES('5120150004','3',88);

二、完成以下查询

1、给定一个学生（Sno=‘5020150001’）统计该生已经选了几门课程。

2、给定一个学生（Sno=‘5120150001’），统计该生已经选修了哪些课程。

3、给定一门课程（Cno=1）统计哪些学生选修了这门课程，给出学生所有信息。

4、统计哪些课程没有人报选。

5、统计选修课程少于3人的所有课程信息。

6、统计每一门课程已经有多少学生选修，如果限定每门课20人选择，还能供多少学生选修。

7、检索含有“X”的课程信息。

8、检索以“FX”结尾的课程信息。

9、检索以“j”开头，以“程序设计”结尾的课程信息。

10、检索学生联系方式中以51开头或者18开头，且后面跟着10位数字的学生信息。