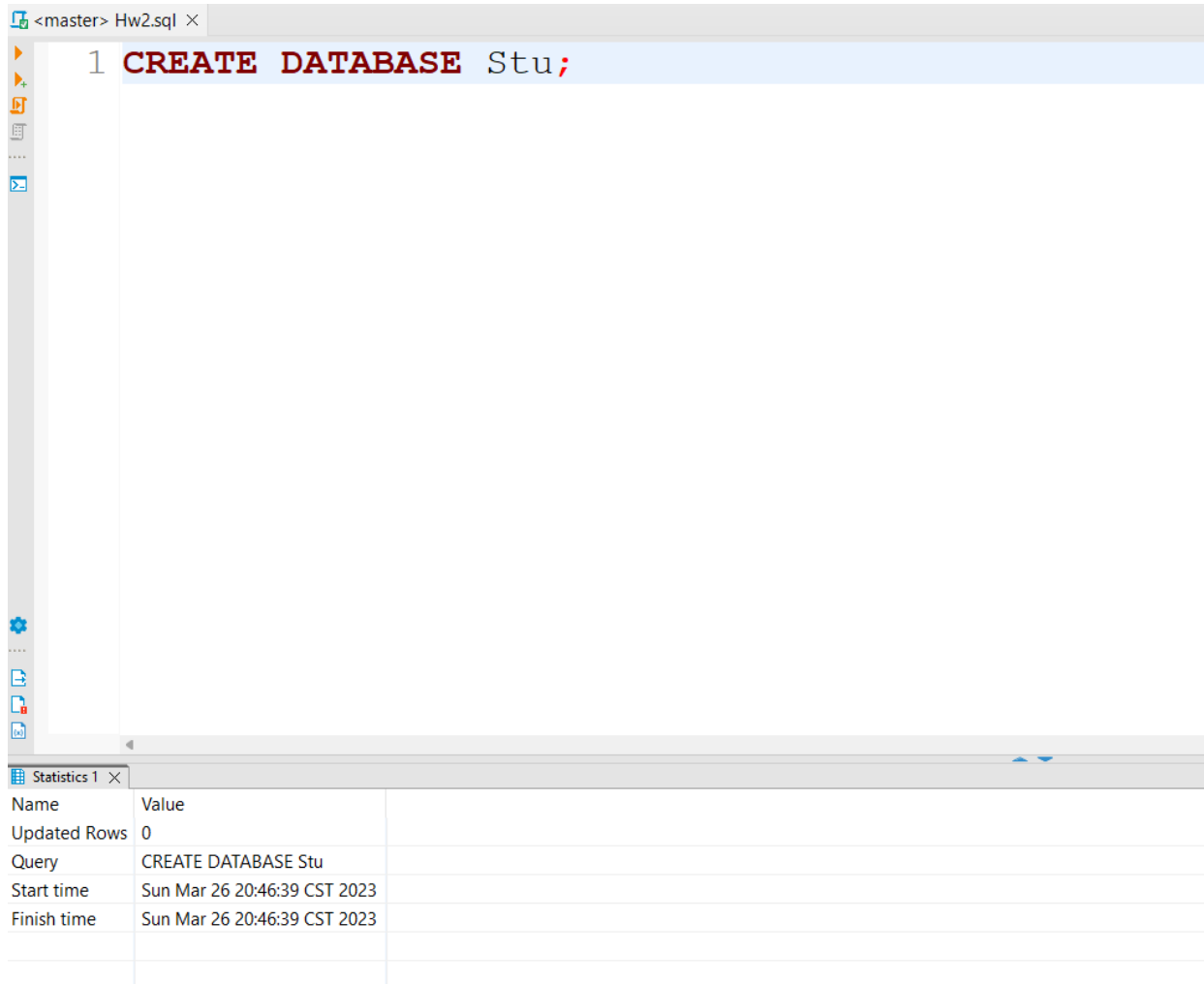


# 作业二

## 1. 建立数据库



The screenshot shows a SQL IDE window titled "<master> Hw2.sql". The main editor area contains a single line of SQL code: `1 CREATE DATABASE Stu;`. Below the editor, a "Statistics 1" panel displays the following information:

Name	Value
Updated Rows	0
Query	CREATE DATABASE Stu
Start time	Sun Mar 26 20:46:39 CST 2023
Finish time	Sun Mar 26 20:46:39 CST 2023

## 2. 建表

### 建表SQL

```
CREATE TABLE DEPARTMENT(  
    DNo CHAR(4) PRIMARY KEY,  
    DName CHAR(20) UNIQUE,  
    head CHAR(20)  
);
```

```
CREATE TABLE DORM(  
    DORMNo CHAR(5) PRIMARY KEY,  
    TELE CHAR(7)  
);
```

```
CREATE TABLE COURSE(  
    CNo CHAR(2) PRIMARY KEY,  
    CName CHAR(20),  
    CPno CHAR(2),  
    credit INT,  
    teacher CHAR(8)  
);
```

```
CREATE TABLE STUDENT(  
    SNo CHAR(6) PRIMARY KEY,  
    SName CHAR(8),  
    sex CHAR(2),  
    SAge INT,  
    DNo CHAR(4),  
    DORMNo CHAR(5),  
    FOREIGN KEY(DNo) REFERENCES  
DEPARTMENT(DNo),  
    FOREIGN KEY(DORMNo) REFERENCES DORM(DORMNo)  
);
```

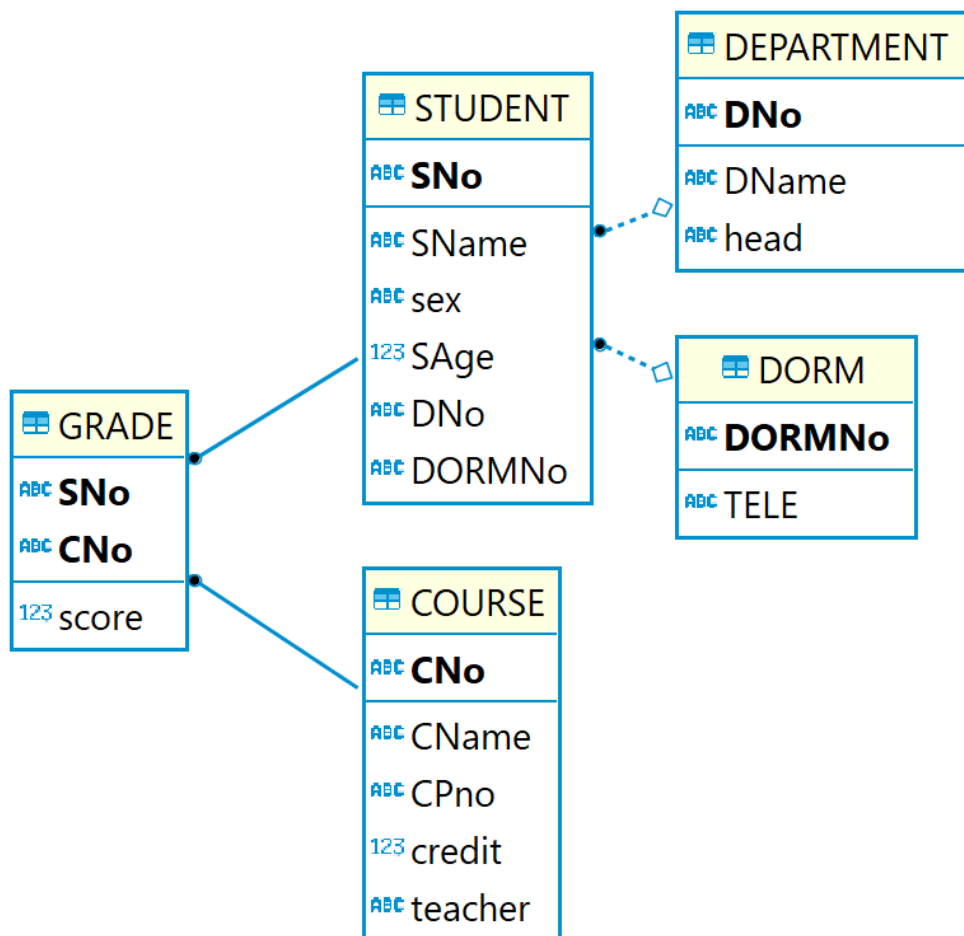
```
CREATE TABLE GRADE(  
    SNo CHAR(6),  
    CNo CHAR(2),  
    score DECIMAL(4,1),  
    FOREIGN KEY(SNo) REFERENCES STUDENT(SNo),
```

```
FOREIGN KEY(CNo) REFERENCES COURSE(CNo),  
PRIMARY KEY(SNo,CNo)  
);
```

建表成功没有报错：

Statistics 1	
Name	Value
Updated Rows	0
Query	<pre>CREATE TABLE DEPARTMENT(   DNo CHAR(4) PRIMARY KEY,   DName CHAR(20) UNIQUE,   head CHAR(20) ); CREATE TABLE DORM(   DORMNo CHAR(5) PRIMARY KEY,   TELE CHAR(7) ); CREATE TABLE COURSE(   CNo CHAR(2)PRIMARY KEY,   CName CHAR(20),   CPno CHAR(2),   credit INT,   teacher CHAR(8) ); CREATE TABLE STUDENT(   SNo CHAR(6) PRIMARY KEY,   SName CHAR(8),   sex CHAR(2),   SAge INT,   DNo CHAR(4),   DORMNo CHAR(5),   FOREIGN KEY(DNo) REFERENCES DEPARTMEN(DNo),   FOREIGN KEY(DORMNo) REFERENCES DORM(DORMNo) ); CREATE TABLE GRADE(   SNo CHAR(6),   CNo CHAR(2),   score DECIMAL(4,1),   FOREIGN KEY(SNo) REFERENCES STUDENT(SNo),   FOREIGN KEY(CNo) REFERENCES COURSE(CNo),   PRIMARY KEY(SNo,CNo) );</pre>

建表的结果



### 3. 插入数据

#### 插入SQL

```
INSERT INTO DEPARTMENT(DNo,DName,head) VALUES
('1','计算机系','王凯峰'),
('2','数学系','李永军'),
('3','物理系','唐键'),
('4','中文系','秦峰');
```

```
INSERT INTO DORM(DORMNo,tele) VALUES
('2101','8302101'),
('2202','8302202'),
('2303','8302303'),
```

```
('2404', '8302404'),  
('2505', '8302505');
```

INSERT INTO

```
COURSE(CNo,CName,CPNo,credit,teacher) VALUES  
('01', '数据库原理', '05', 4, '王凯'),  
('02', '高等数学', NULL, 6, '张风'),  
('03', '信息系统', '01', 2, '李明'),  
('04', '操作系统', '06', 4, '许强'),  
('05', '数据结构', '07', 4, '路飞'),  
('06', '算法设计', NULL, 2, '黄海'),  
('07', 'C 语言', '06', 3, '高达');
```

INSERT INTO

```
STUDENT(SNo,SName,sex,SAge,DNo,DORMNo) VALUES  
('990101', '原野', '男', 21, '1', '2101'),  
('990102', '张原', '男', 21, '1', '2101'),  
('990103', '李军', '男', 20, '1', '2101'),  
('990104', '汪远', '男', 20, '1', '2101'),  
('990105', '齐欣', '男', 20, '1', '2101'),  
('990201', '王大鸣', '男', 19, '2', '2202'),  
('980202', '徐东', '男', 19, '2', '2202'),  
('980301', '张扬', '女', 21, '1', '2303'),  
('990302', '于洋', '女', 20, '3', '2303'),  
('990303', '姚志旬', '男', 19, '4', '2404'),  
('990401', '高明镜', '男', 19, '4', NULL),  
('990402', '明天', '男', 21, '4', '2404');
```

```
INSERT INTO GRADE(SNo,CNo,score) VALUES  
('990101', '01', 85),
```

```
('990101', '03', 65),  
( '990101', '04', 83),  
( '990101', '07', 72),  
( '990102', '02', 80),  
( '990102', '04', 81),  
( '990102', '01', NULL),  
( '990103', '07', 74),  
( '990103', '06', 74),  
( '990103', '01', 74),  
( '990103', '02', 70),  
( '990103', '04', 70),  
( '990104', '01', 55),  
( '990104', '02', 42),  
( '990104', '03', 0),  
( '990105', '03', 85),  
( '990105', '06', NULL),  
( '980301', '01', 46),  
( '980301', '02', 70),  
( '990302', '01', 85),  
( '990401', '01', 0);
```

成功插入

```

42=INSERT INTO DEPARTMENT (DNo,DName,head) VALUES
43 ('1','计算机系','王凯峰'),
44 ('2','数学系','李永军'),
45 ('3','物理系','唐键'),
46 ('4','中文系','秦峰');

```

```

47
48=INSERT INTO DORM(DORMNo,tele) VALUES
49 ('2101','8302101'),

```

Name	Value
Updated Rows	4
Query	INSERT INTO DEPARTMENT(DNo,DName,head) VALUES (1,'计算机系','王凯峰'), (2,'数学系','李永军'), (3,'物理系','唐键'), (4,'中文系','秦峰');
Start time	Sun Mar 26 21:30:07 CST 2023
Finish time	Sun Mar 26 21:30:07 CST 2023

```

48=INSERT INTO DORM(DORMNo,tele) VALUES
49 ('2101','8302101'),
50 ('2202','8302202'),
51 ('2303','8302303'),
52 ('2404','8302404'),
53 ('2505','8302505');

```

```

54
55=INSERT INTO COURSE (CNo,CName,CPNo,credit,teacher) VA

```

Name	Value
Updated Rows	5
Query	INSERT INTO DORM(DORMNo,tele) VALUES (2101,'8302101'), (2202,'8302202'), (2303,'8302303'), (2404,'8302404'), (2505,'8302505');
Start time	Sun Mar 26 21:30:59 CST 2023
Finish time	Sun Mar 26 21:30:59 CST 2023

```

55=INSERT INTO COURSE (CNo,CName,CPNo,credit,teacher) VALUES
56 ('01','数据库原理','05',4,'王凯'),
57 ('02','高等数学',NULL,6,'张风'),
58 ('03','信息系统','01',2,'李明'),
59 ('04','操作系统','06',4,'许强'),
60 ('05','数据结构','07',4,'路飞'),
61 ('06','算法设计',NULL,2,'黄海'),
62 ('07','C 语言','06',3,'高达');

```

```

63
64=INSERT INTO STUDENT (SNo,SName,sex,SAge,DNo,DORMNo) VALUES

```

Name	Value
Updated Rows	7
Query	INSERT INTO COURSE(CNo,CName,CPNo,credit,teacher) VALUES (01,'数据库原理','05',4,'王凯'), (02,'高等数学',NULL,6,'张风'), (03,'信息系统','01',2,'李明'), (04,'操作系统','06',4,'许强'), (05,'数据结构','07',4,'路飞'), (06,'算法设计',NULL,2,'黄海'), (07,'C 语言','06',3,'高达');

```
64=INSERT INTO STUDENT (SNo, SName, sex, SAge, DNo, DORMNo) VALUES
65 ('990101', '原野', '男', 21, '1', '2101'),
66 ('990102', '张原', '男', 21, '1', '2101'),
67 ('990103', '李军', '男', 20, '1', '2101'),
68 ('990104', '汪远', '男', 20, '1', '2101'),
69 ('990105', '齐欣', '男', 20, '1', '2101'),
70 ('990201', '王大鸣', '男', 19, '2', '2202'),
71 ('980202', '徐东', '男', 19, '2', '2202'),
72 ('980301', '张扬', '女', 21, '1', '2303'),
73 ('990302', '于洋', '女', 20, '3', '2303'),
74 ('990303', '姚志旬', '男', 19, '4', '2404'),
75 ('990401', '高明镜', '男', 19, '4', NULL),
76 ('990402', '明天', '男', 21, '4', '2404');
77
78=INSERT INTO GRADE (SNo, CNo, score) VALUES
```

Name	Value
Updated Rows	12
Query	INSERT INTO STUDENT(SNo,SName,sex,SAge,DNo,DORMNo) VALUES (‘990101’,‘原野’,‘男’,21,‘1’,‘2101’), (‘990102’,‘张原’,‘男’,21,‘1’,‘2101’), (‘990103’,‘李军’,‘男’,20,‘1’,‘2101’), (‘990104’,‘汪远’,‘男’,20,‘1’,‘2101’), (‘990105’,‘齐欣’,‘男’,20,‘1’,‘2101’), (‘990201’,‘王大鸣’,‘男’,19,‘2’,‘2202’), (‘980202’,‘徐东’,‘男’,19,‘2’,‘2202’).

```
78=INSERT INTO GRADE (SNo, CNo, score) VALUES
79 ('990101', '01', 85),
80 ('990101', '03', 65),
81 ('990101', '04', 83),
82 ('990101', '07', 72),
83 ('990102', '02', 80),
84 ('990102', '04', 81),
85 ('990102', '01', NULL),
86 ('990103', '07', 74),
87 ('990103', '06', 74),
88 ('990103', '01', 74),
89 ('990103', '02', 70),
90 ('990103', '04', 70),
91 ('990104', '01', 55),
92 ('990104', '02', 42),
93 ('990104', '03', 0),
```

Name	Value
Updated Rows	21
Query	INSERT INTO GRADE(SNo,CNo,score) VALUES (‘990101’,‘01’,85), (‘990101’,‘03’,65), (‘990101’,‘04’,83), (‘990101’,‘07’,72), (‘990102’,‘02’,80), (‘990102’,‘04’,81), (‘990102’,‘01’,NULL),