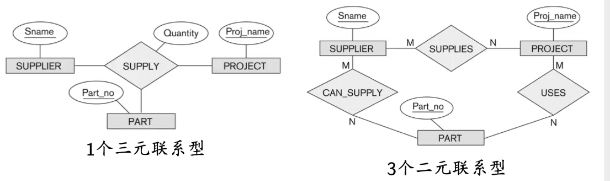
**2020春《数据库系统》作业3**

主讲教师: 邹兆年(znzou@hit.edu.cn)

姓名: \_\_\_\_\_陶飞宇\_\_\_\_ 学号: \_\_\_\_117030720\_\_\_\_\_\_\_\_ 班号: \_\_\_\_1737301\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 题目 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 总分 |
| 得分 |  |  |  |  |  |  |  |  |  |  |  |

1. 以课件上的例子为例：

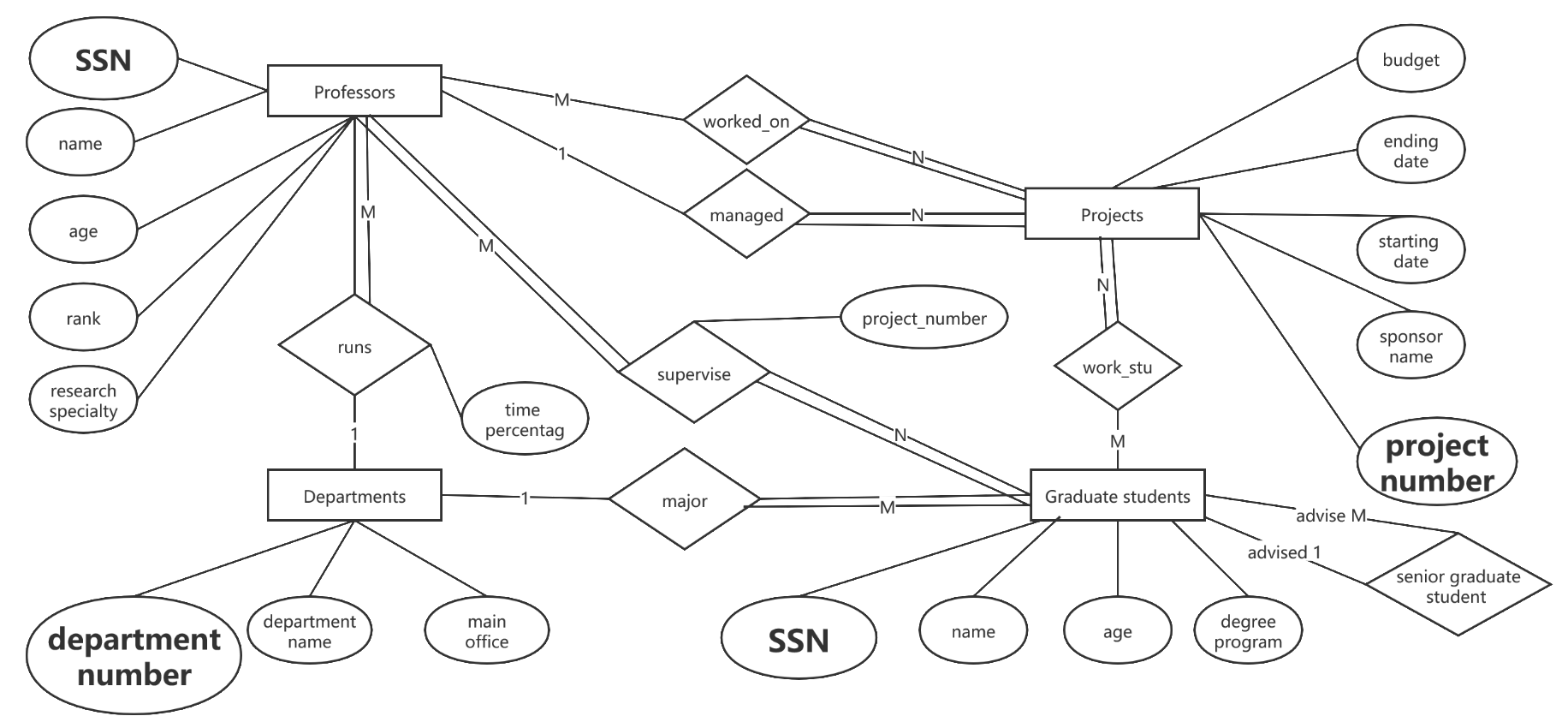


三元联系只能以“SUPPLY”表示提供，并没有SUPPLIER、PROJECT、PART之间的细节联系。

而三个二元联系以明确的CAN\_SUPPLY、USES、PART三个联系明确了三个实体之间的关系。

当三个二元联系相同时，使用一个三元联系表示三个二元联系，结果是肯定相同的。

2.



(由于软件本身问题，下划线不清晰，图中加黑加粗为的主键)

3.（下划线为主键，加粗斜体为外键）

Professors（SSN,name,age,rank,research\_specialty,***department\_number***,time\_percentage）

Projects(project\_number,sponsor\_name,starting\_date,ending\_date,budget,***SSN\_professors***)

Graduate\_students(SSN,name,age,degree\_program,***department\_number***,senior\_graduate\_student)

Departments(***department\_number***,department\_name,main\_office)

worked\_on(***SSN\_porfessors,project\_number***)

work\_stu(***SSN\_students,project\_number***)

supervise(***SSN\_professors,SSN\_students***,project\_number)

4.

CREATE TABLE Projects

(project\_number int PRIMARY KEY,

sponsor\_name CHAR(12),

starting\_date DATE ,

ending\_date DATE,

budget INT,

SSN\_professors INT,

KEY(sponsor) SPONSOR,

KEY(starting\_date, ending\_date) TIME,

FOREIGN KEY (SSN\_professors) DUTY Professors(SSN));

利用了二级索引和外键索引