Homwework 2

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Problem 1

a. DaysTime, CRoom, Year, Sem, SecId

b. The Id of the INSTRUCTOR, Sem, Year, DaysTime, SecID

c. The Course code of the Course, Sem, Year, SecNo,

d. During a particular semester and year, an Instruction can only teach one Course at the same level：(Sem, Year, The Id of INSTRUCTOR, Level)

Problem 2

{Student\_College\_Attended (College\_Name,StartDate,EndDate ,{Degree(Degree\_Name, Date}, {Transcript(Course\_Name, Semester, Year, Garde ) } ) }

**Problem 3**

a. BANK, LOANS, ACCOUNT, CUSTOMER

b. BANK\_BRANCH is a weak entity type. Its partial key is Branch\_no(1:1). Its identifying relationship is BRANCHES.(1:N)

c. One Branch\_no match One BANK\_BRANCH, and a bank match many branch.

d.

1). BRANCHES:BANK:(1,1); BRANCHES: BANK\_BRANCH(1:N). One Branch\_no match One BANK\_BRANCH, and a bank match many branch.

2). LOAND:BANK\_BRANCH(1,1); LOANS: LOAN(1,N). BRANCH can have many loans, and a loan only match one branch

3). ACCTS:BANK\_BRANCH(1,1); ACCTS:ACCOUNT(1,N). BRANCH can have many account, and an account only on one branch.

4). A\_C:ACCOUNT(1,N); A\_C:CUSTOMER(1,1). An account only owned by one customer, and a customer can have many account.

5). L\_C:LOAN(1,N); L\_C:CUSTOMER(1,1). A loan only owned by one customer, and a customer can have many loans

Problem 4

1. WORKS\_IN:DEPARTMENT(2,20)

2. CONTAIN:PHONE(1,1)

3. HAS\_PHONE:PHONE(1,5)

4. EMPLOYEE:HAS\_PHONE(1,3)

5. EMPLOYEE:WORKS\_IN(0,2)

6. DEPARTMENT:CONTAINS(1,4)