







〈5주차 실습〉

ER-Win(2)

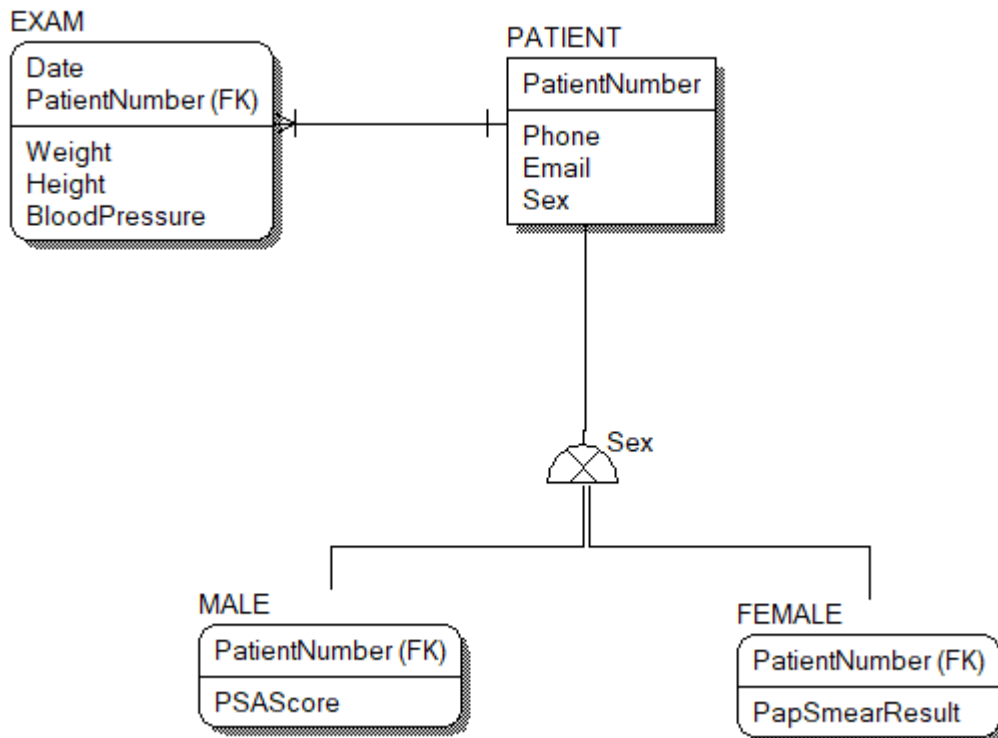
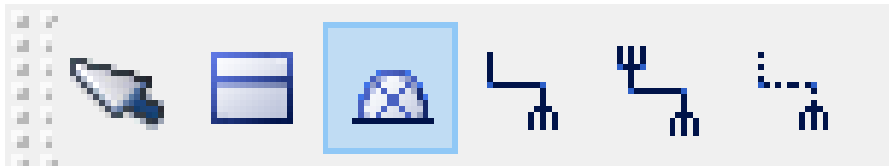
Database Programming

-  Subtypes
-  Strong Entity Patterns
-  ID-Dependent Relationships
-  Mixed Patterns
-  Recursive Patterns
-  실습 과제

Subtypes : Exclusive or Inclusive (1/2) 2/22

Exclusive

- 오른쪽 클릭 → Subtype Properties



Subtype Properties dialog box:

Supertype: PATIENT

Subtypes: MALE, FEMALE

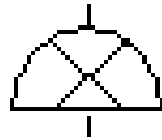
Type: ☒ Exclusive ☐ Inclusive

Discriminator:

- PATIENT
 - PatientNumber
 - Phone
 - Email
 - ☒ Sex

Buttons: OK, Cancel, Help

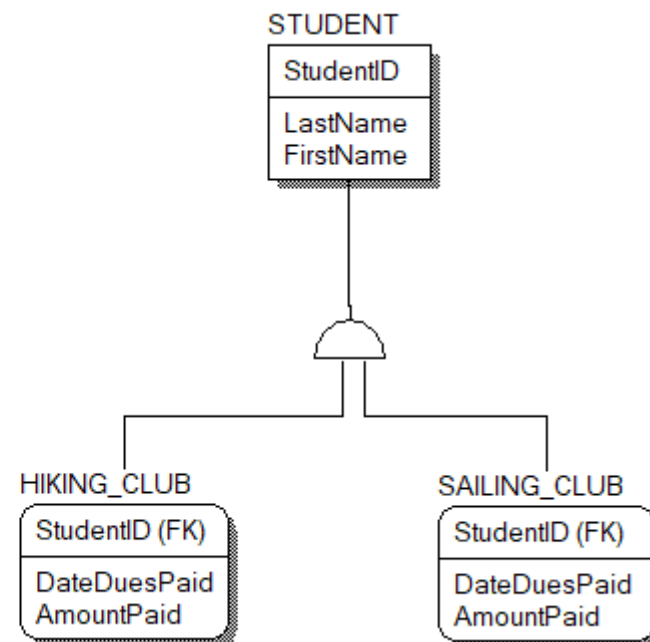
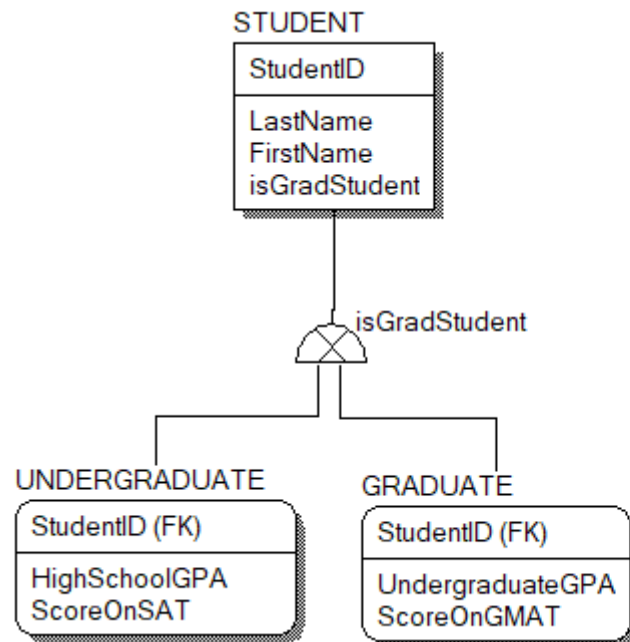
Subtypes : Exclusive or Inclusive (2/2) 3/22



■ Exclusive TYPE



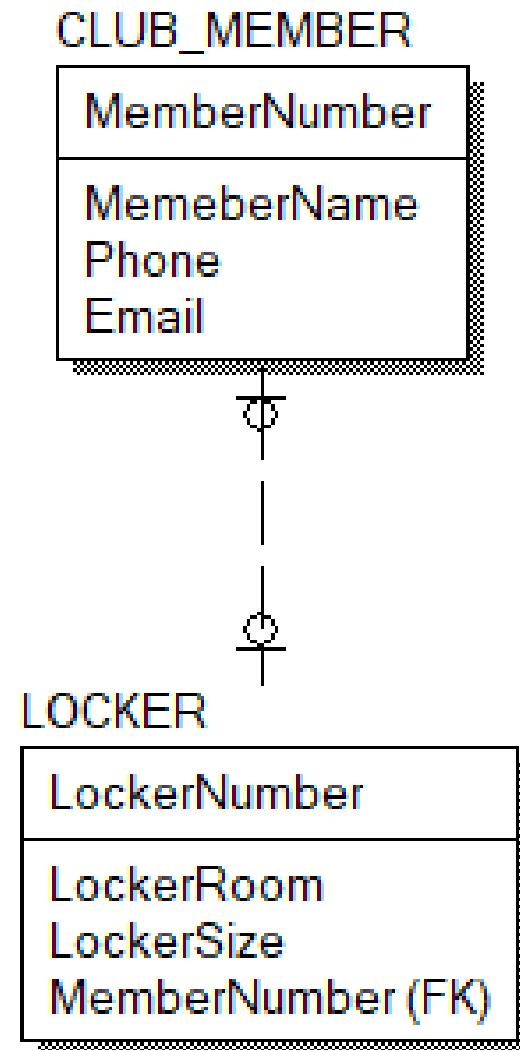
■ Inclusive TYPE



Strong Entity Patterns (1/3):

1:1 Strong Entity Relationships

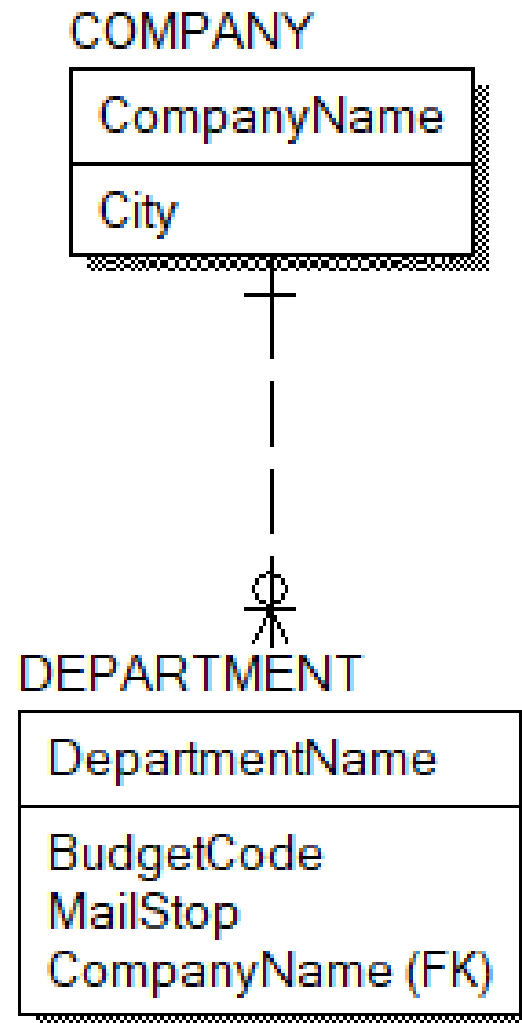
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Strong Entity Patterns (2/3):

1:N Strong Entity Relationships

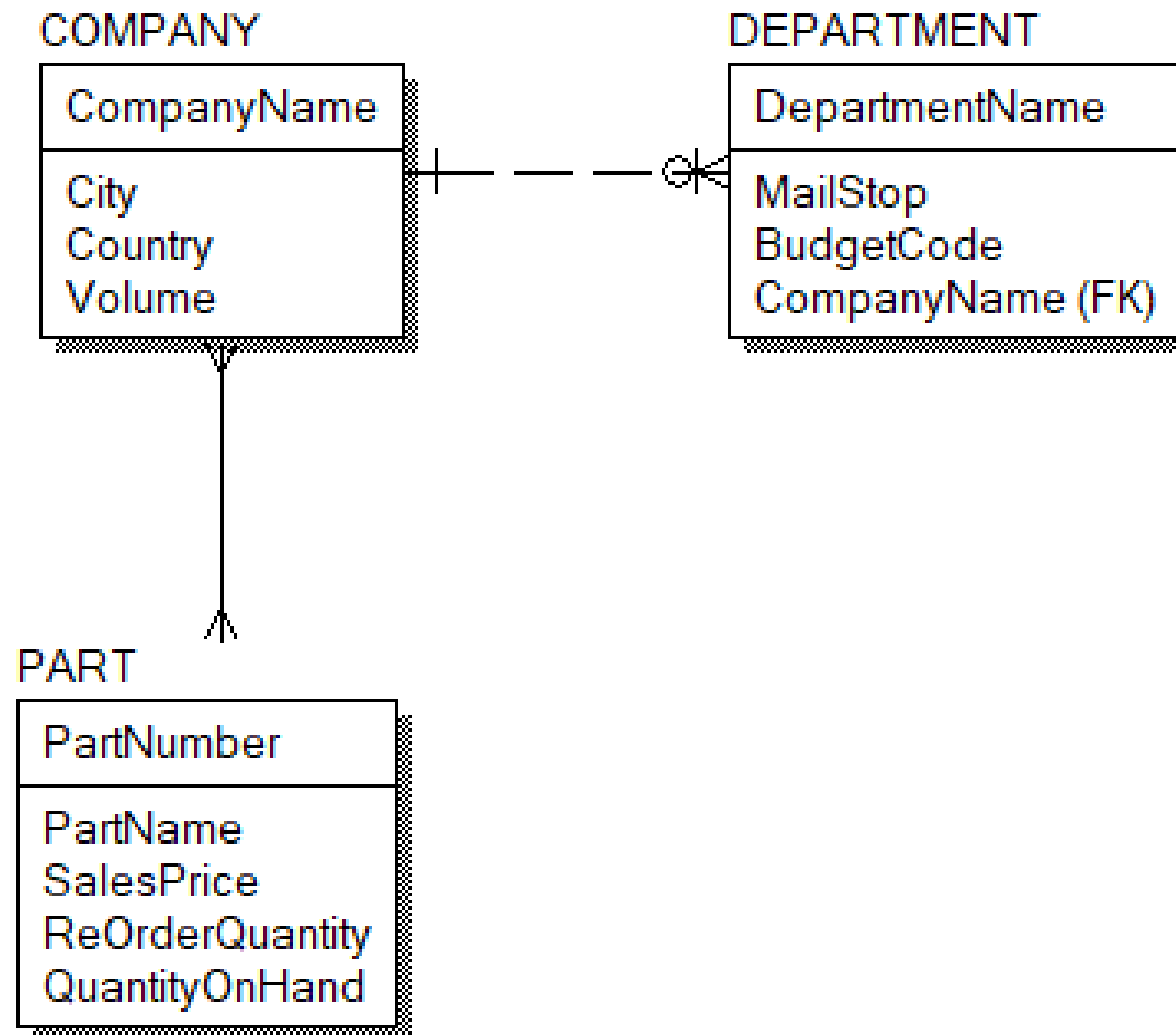
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Strong Entity Patterns (3/3):

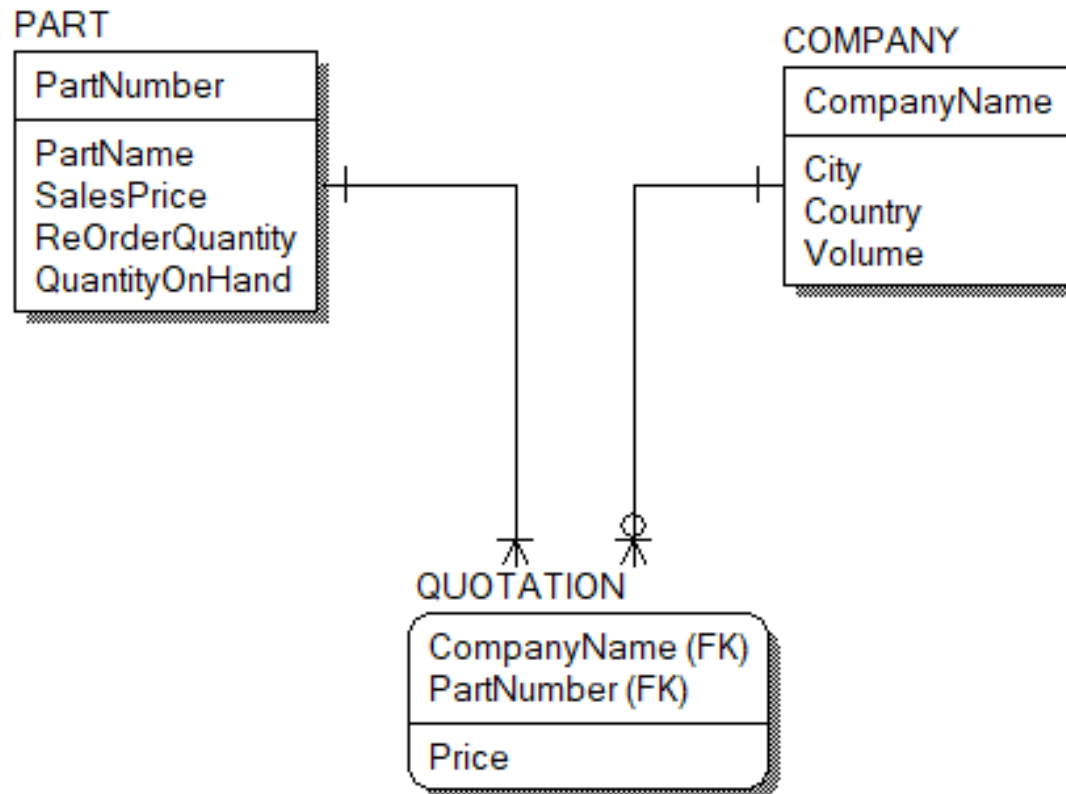
N:M Strong Entity Relationships

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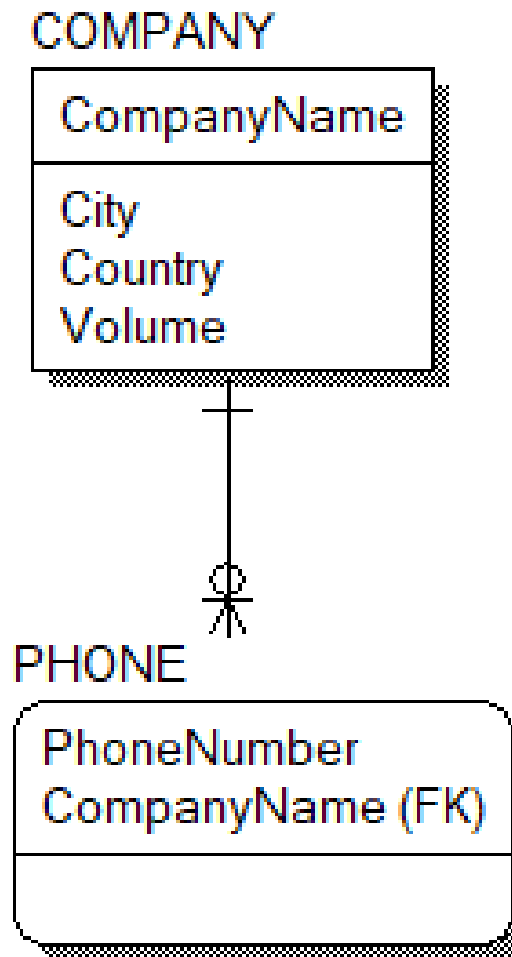
ID-Dependent Relationships (1/5): The Association Pattern

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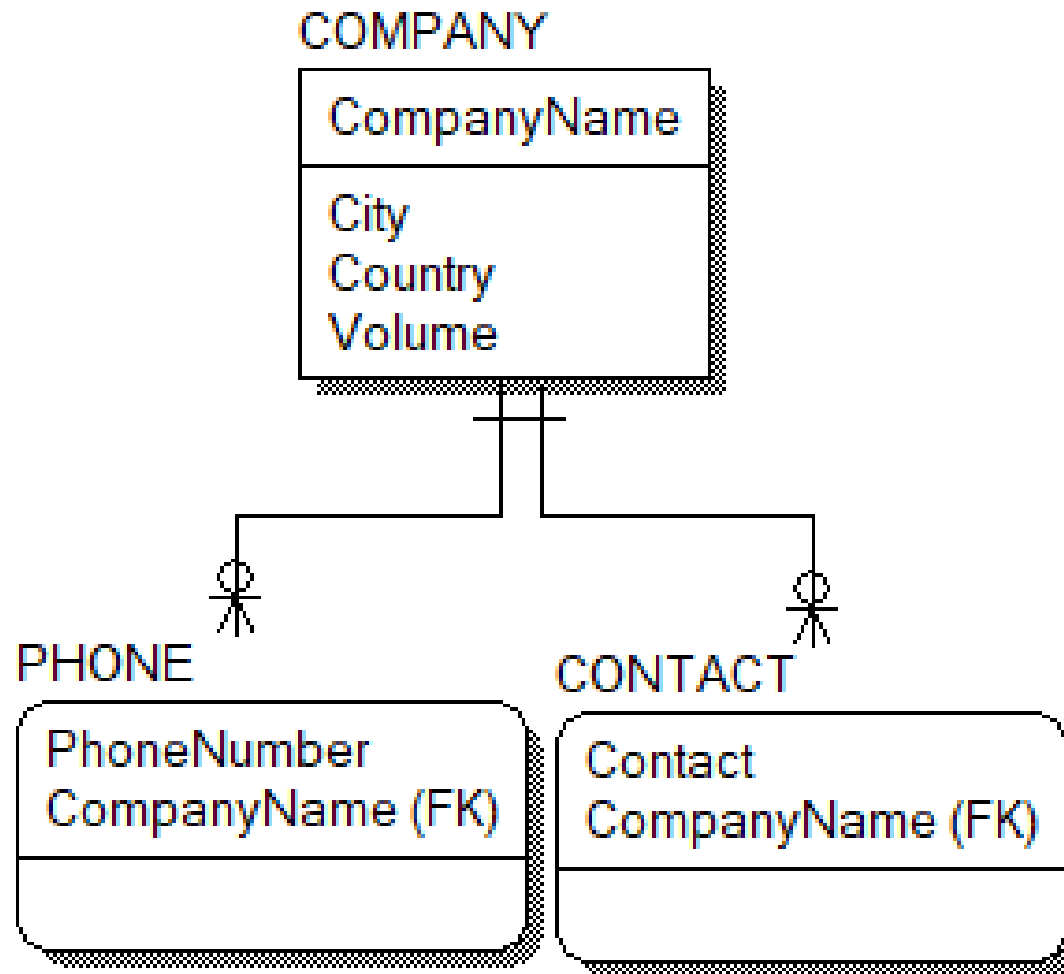
ID-Dependent Relationships (2/5): The Multivalued Attribute Pattern

8/22



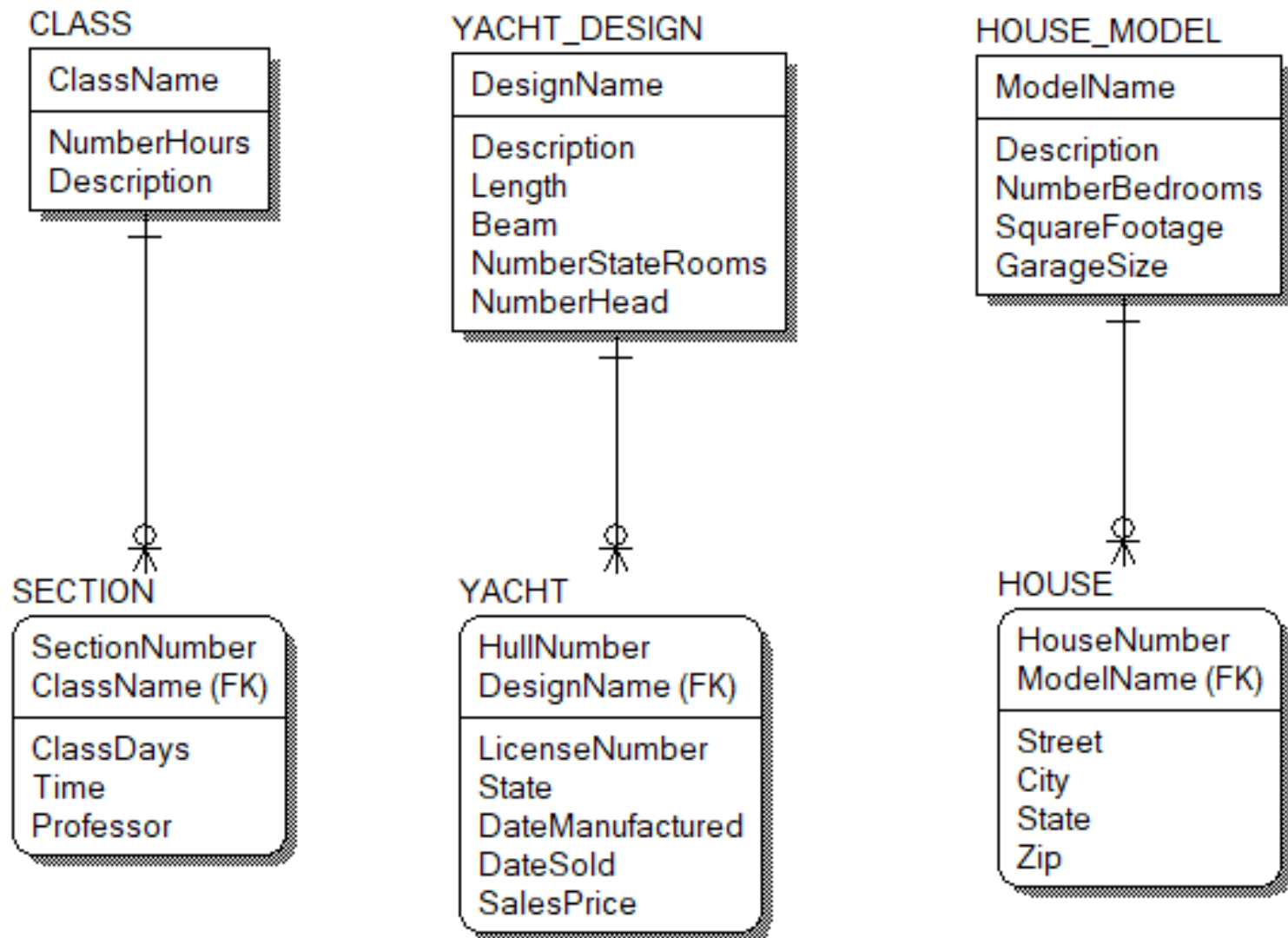
ID-Dependent Relationships (3/5): The Multivalued Attribute Pattern

9/22



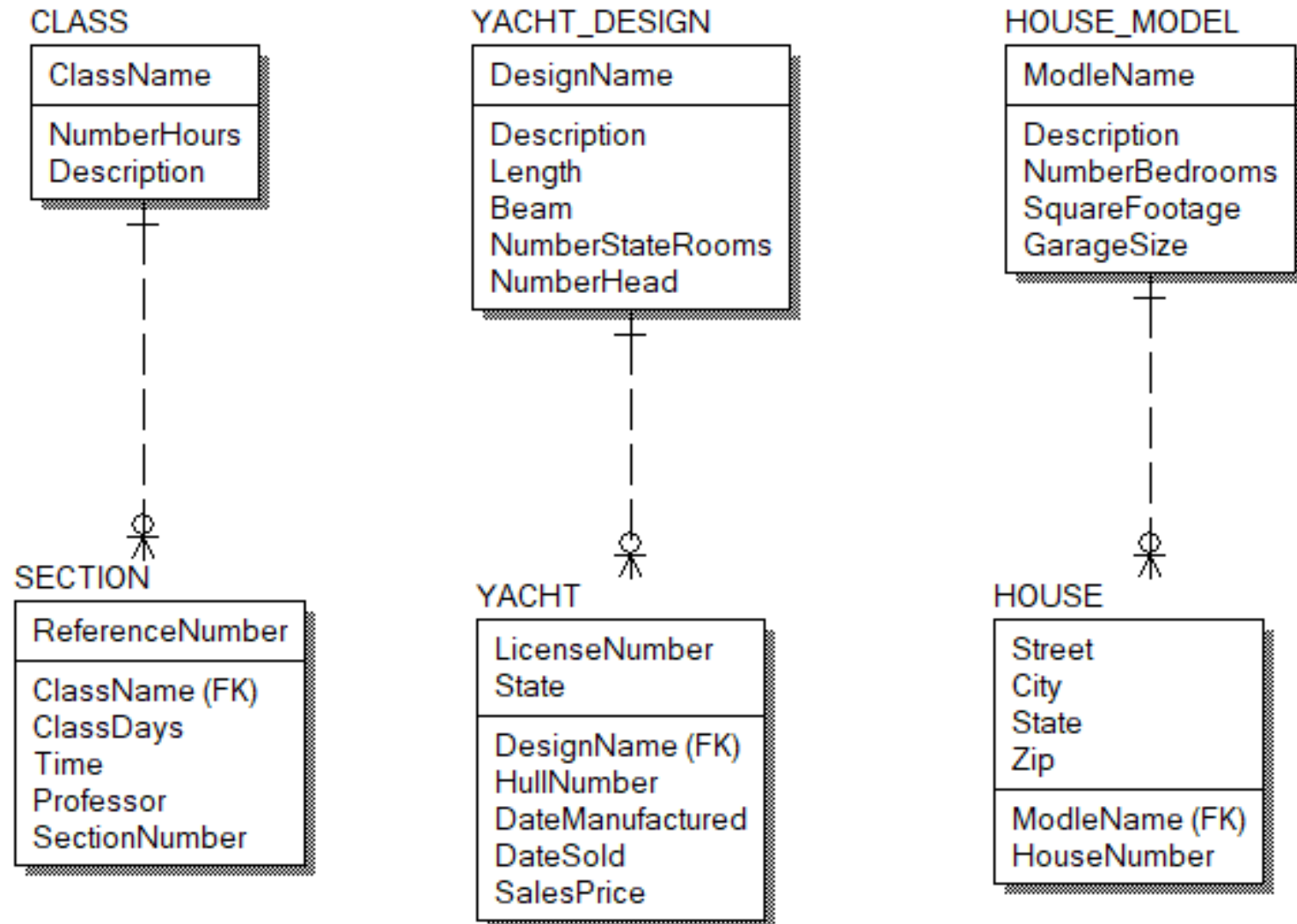
ID-Dependent Relationships (4/5): The Archetype/Instance Pattern

10/22



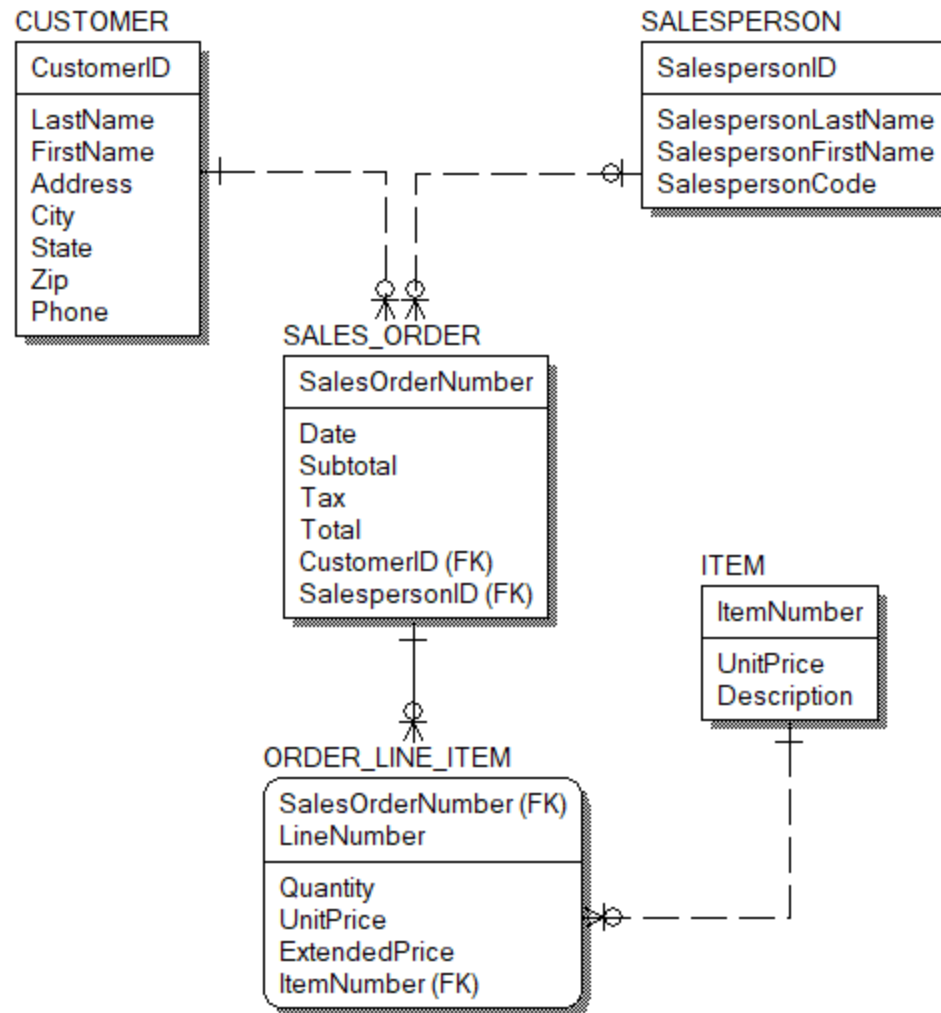
ID-Dependent Relationships (5/5): The Archetype/Instance Pattern

11/22



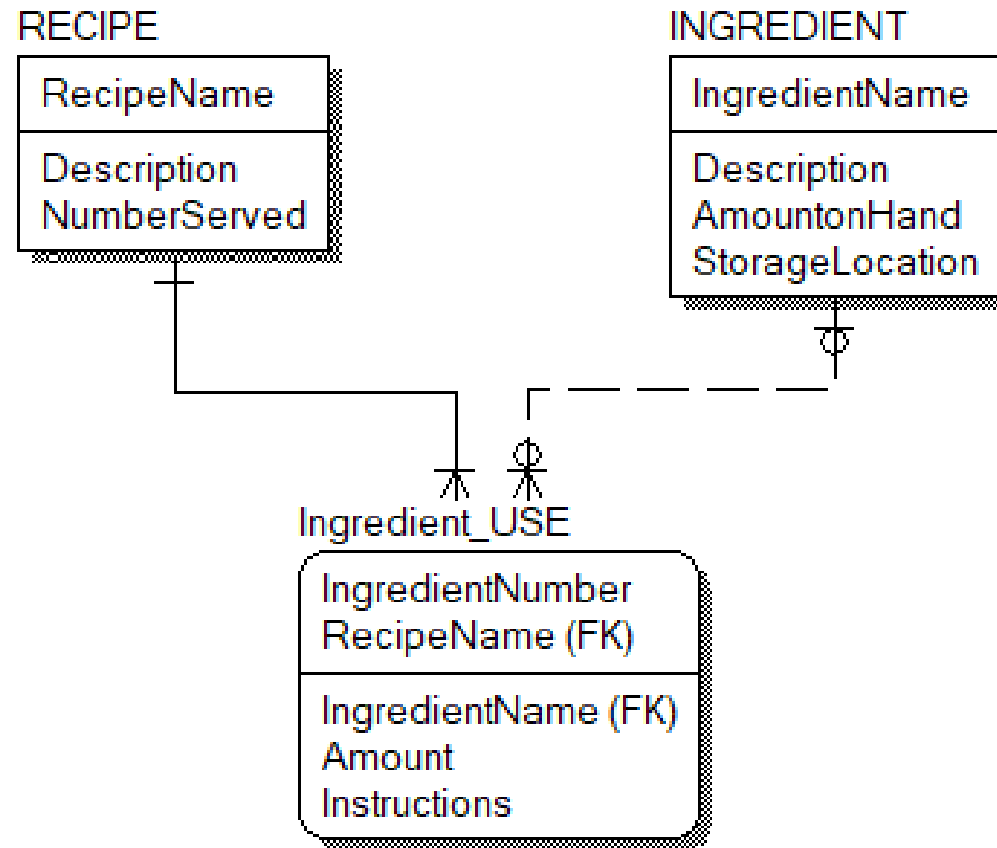
Mixed Patterns (1/3): The Line-Item Pattern

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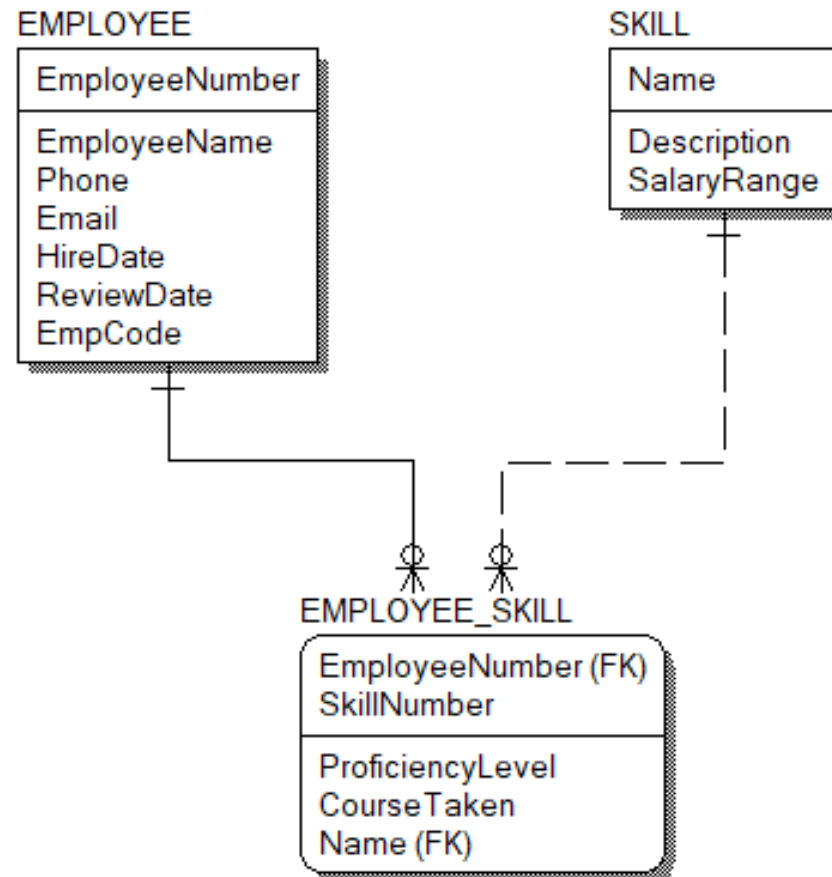
Mixed Patterns (2/3): Other Mixed Patterns

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Mixed Patterns (3/3): Other Mixed Patterns

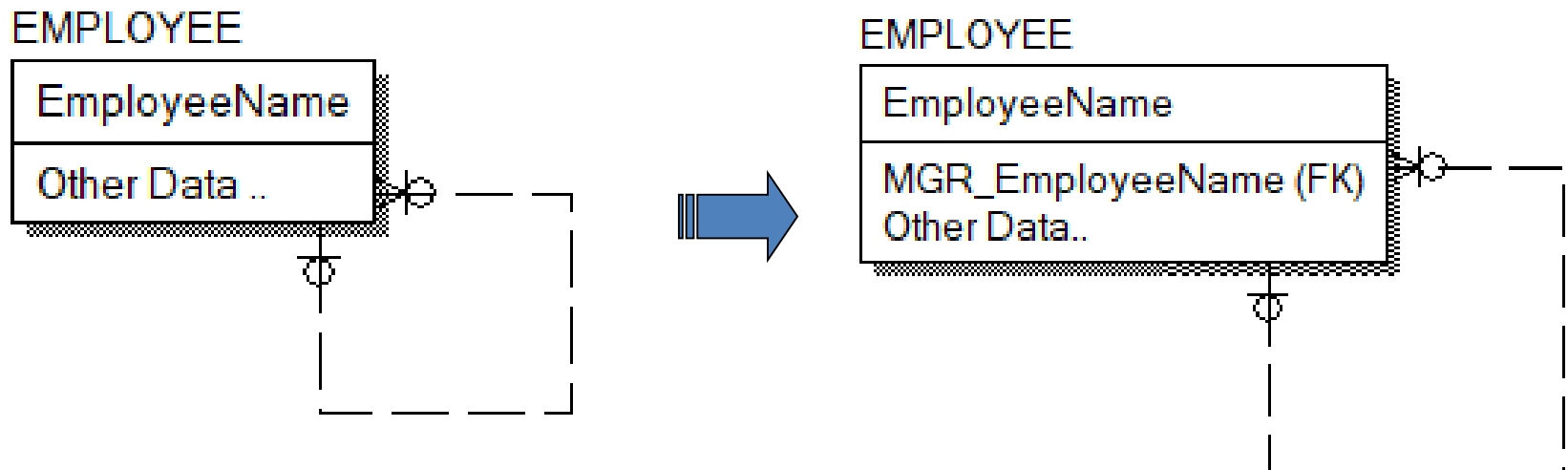
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Recursive Patterns (1/2):

1:N Recursive Relationship

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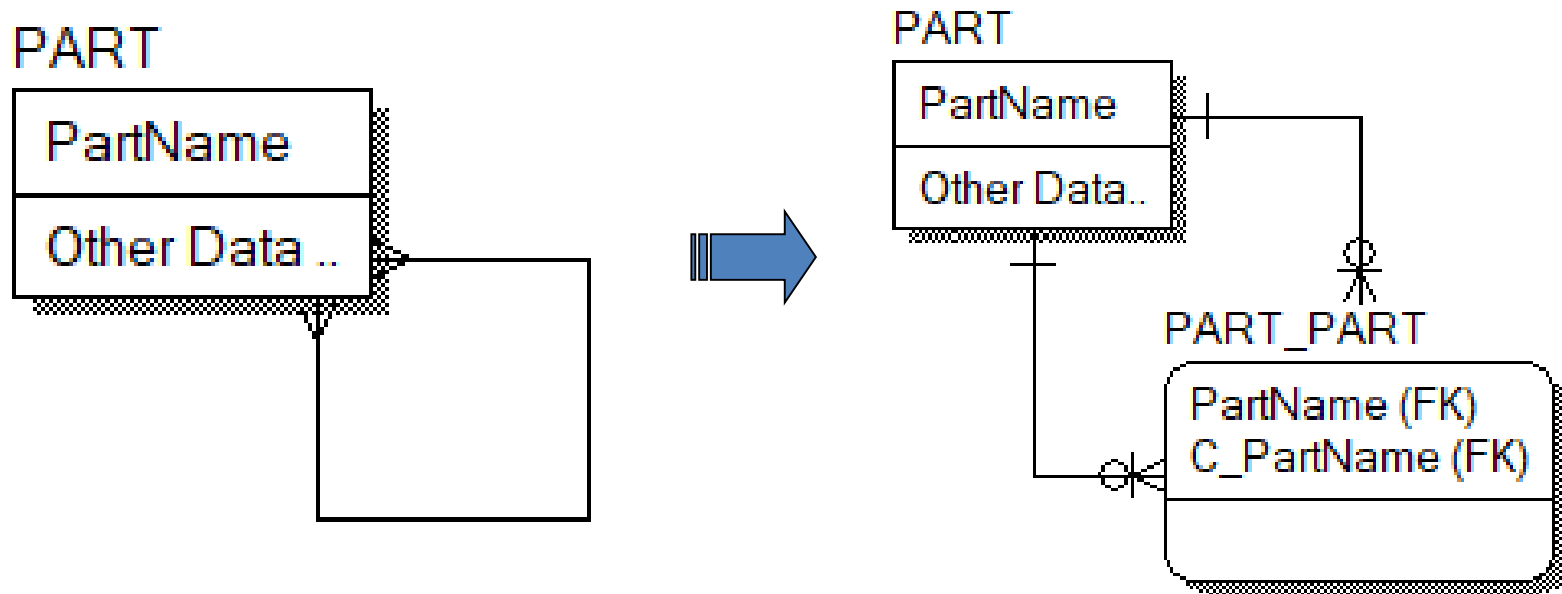


- 한 엔티티에서 동일한 컬럼명 사용이 불가하여 FK의 컬럼명을 수정
- 관계선 마우스 오른쪽 버튼 클릭 → Relationship Properties → Rolename 탭 선택 → Rolename 지정

Recursive Patterns (2/2):

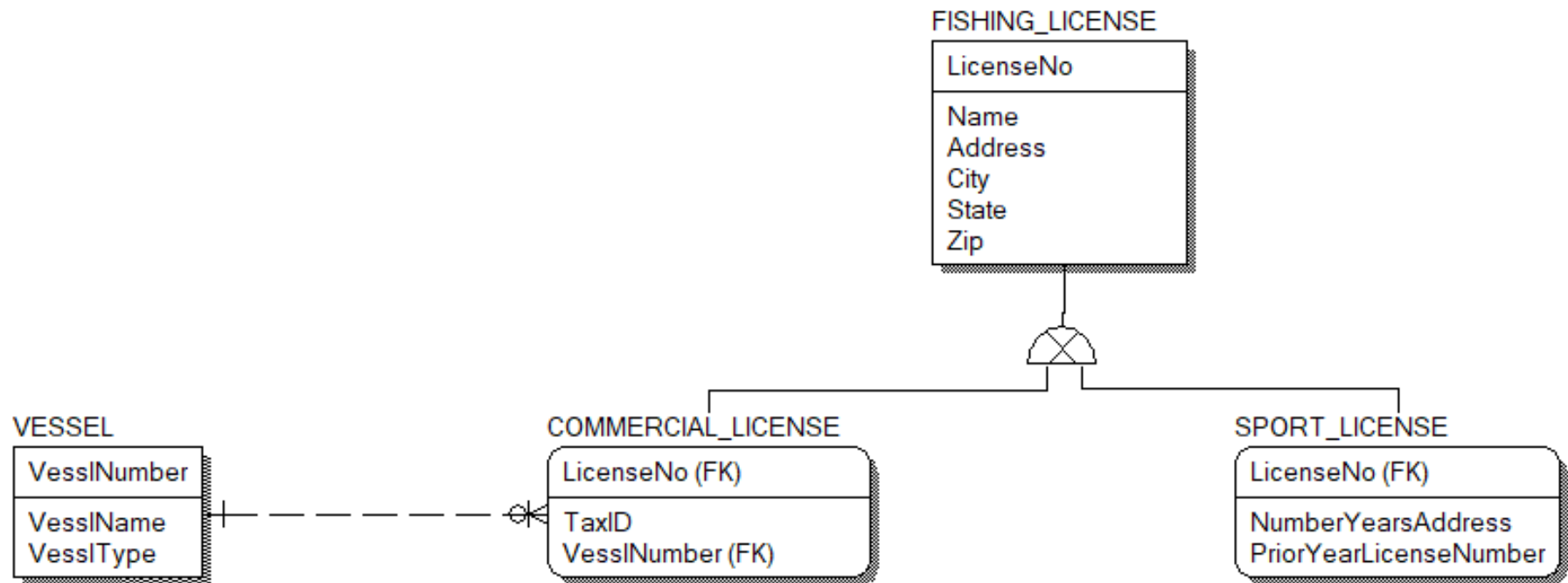
N:M Recursive Relationship

16/22

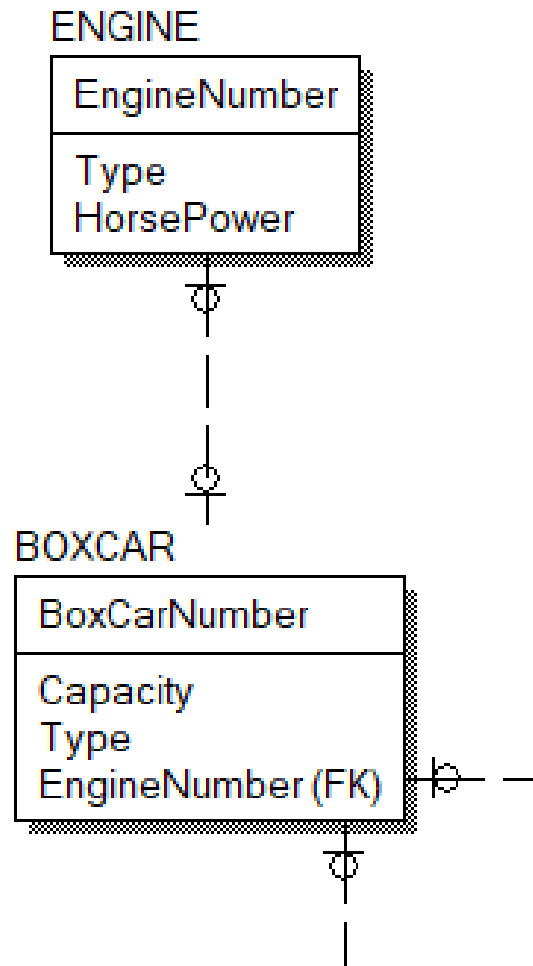


- 먼저 다대다 관계 해소 후에 설정
- 관계선 마우스 오른쪽 버튼 클릭 → Relationship Properties → Rolename 탭 선택 → Rolename 지정

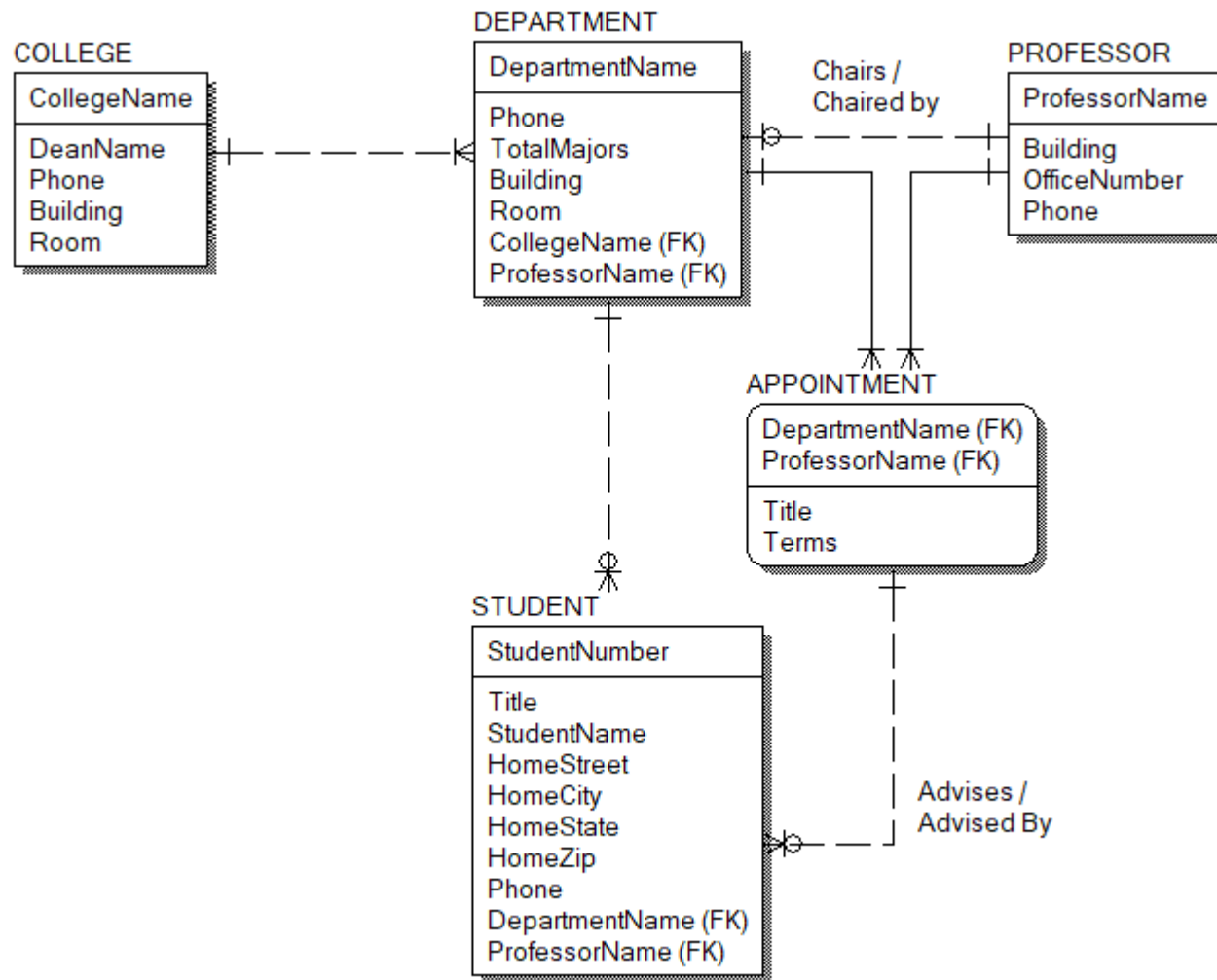
- Q1) 아래와 같은 모델을 작성하시오.



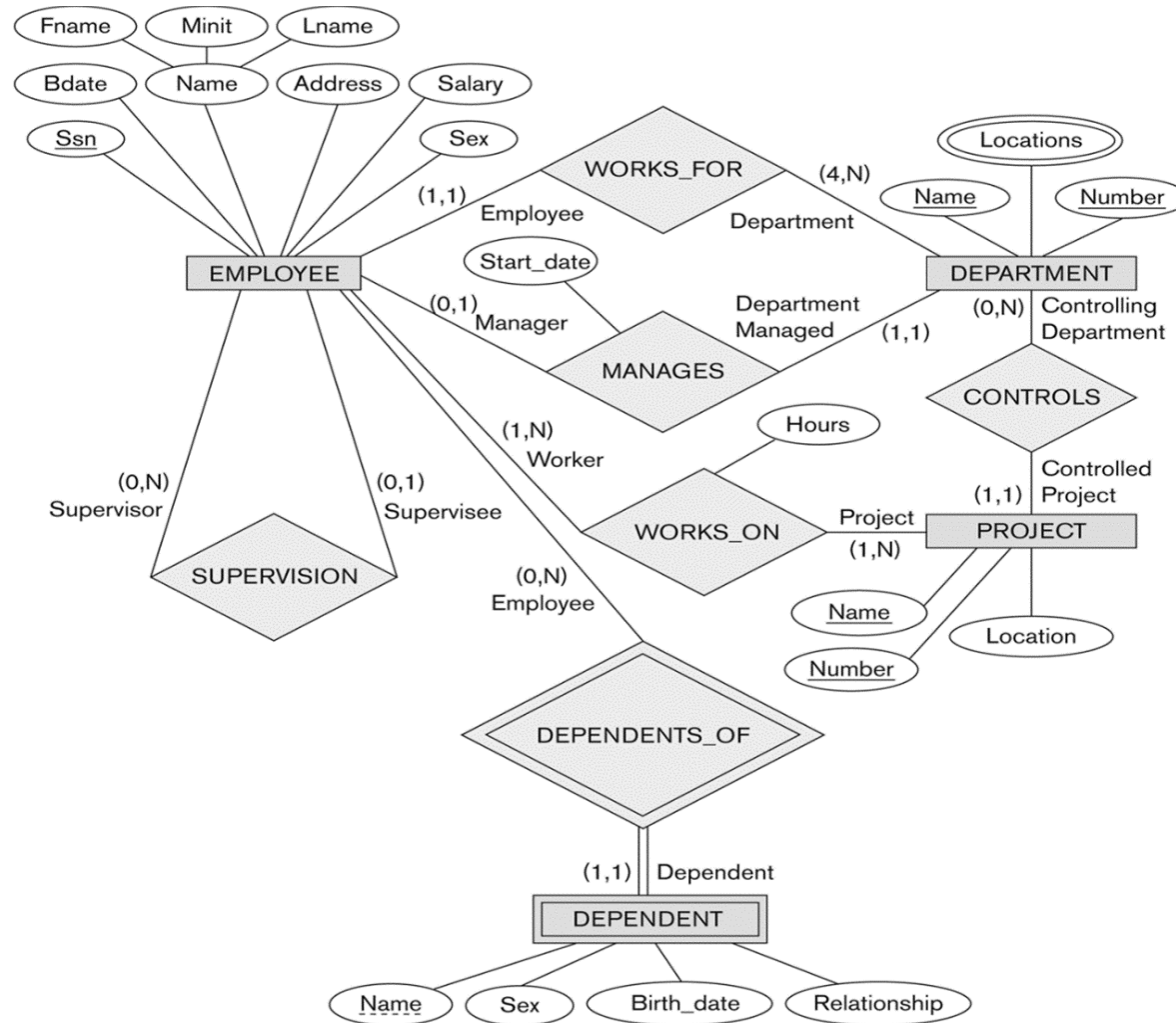
- Q2) 아래와 같은 모델을 작성하시오.



- Q3) 아래와 같은 모델을 작성하시오.



- Q4) 아래의 ER 다이어그램을 참고하여 ER-Win에서 데이터 모델을 작성하시오.



- Q5) 오프라인 서점에서 도서에 대한 정보를 데이터베이스에 저장하려고 한다. 서점 자체를 엔티티로 모델링 하지 않는다. 아래의 사항들을 참조하여 데이터 모델을 작성하시오. 추가로 관계 타입과 카디널리티 설정에 따른 타당성을 작성하시오.
 - 도서 : 도서에는 한 명 이상의 저자가 존재한다.
 - 저자 : 저자는 여러 도서를 출간할 수 있다.
 - 출판사 : 출판사에서는 여러 권의 책을 출간한다.

- 제출 방식 : E-Class를 통하여 제출
- 제출 내용 : ERwin File
- 제출 형식 : 학번_이름_주차
 - Ex) 학번_홍길동_5주차.erwin
- 제출 기한 : 수업 시작 시간으로 부터 24시간 이내 제출
 - 제출 기한 위반 시 감점 기준
 - 지각 제출 시 과제 점수에서 40% 감점
 - 1일 초과 당 10% 추가 감점 (단, 7일 이후 제출 불가)