

ComS 363 Fall 2022
Class Participation Week 5

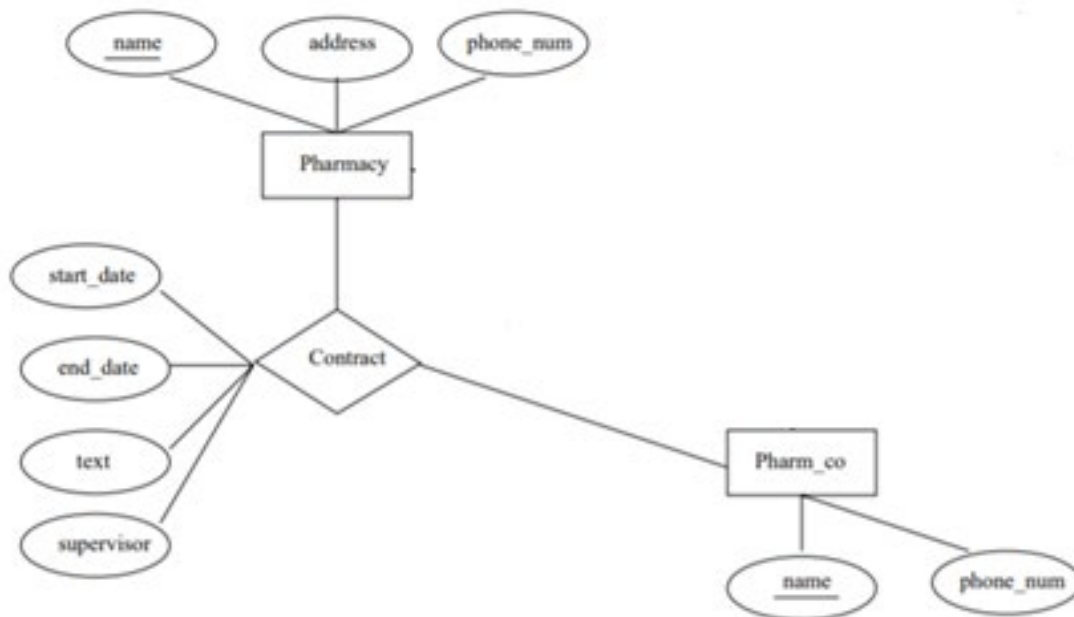
Topic: Mapping of the ER diagram to relational schemas

Learning objectives: Be able to design a good relational database from a given ER diagram.

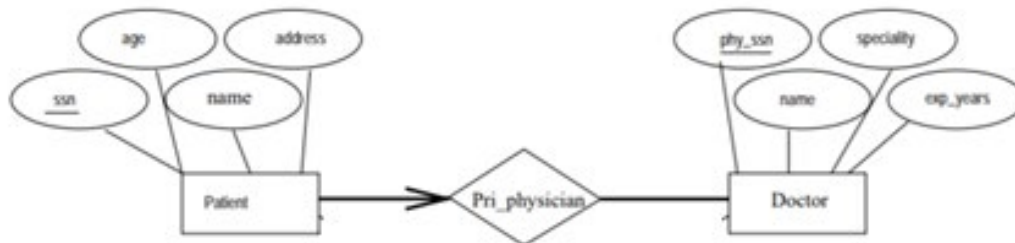
Instruction: Do all the questions. Use the method discussed in class to convert ER notations to relation schemas while minimizing unnecessary redundancy and unnecessary relations. Implement as many constraints given in the ER diagram as possible. Indicate all the constraints that cannot be enforced by a good schema design.

Example: R1(A,B,C not null, D, primary key(A), foreign key(C) references R2(A).

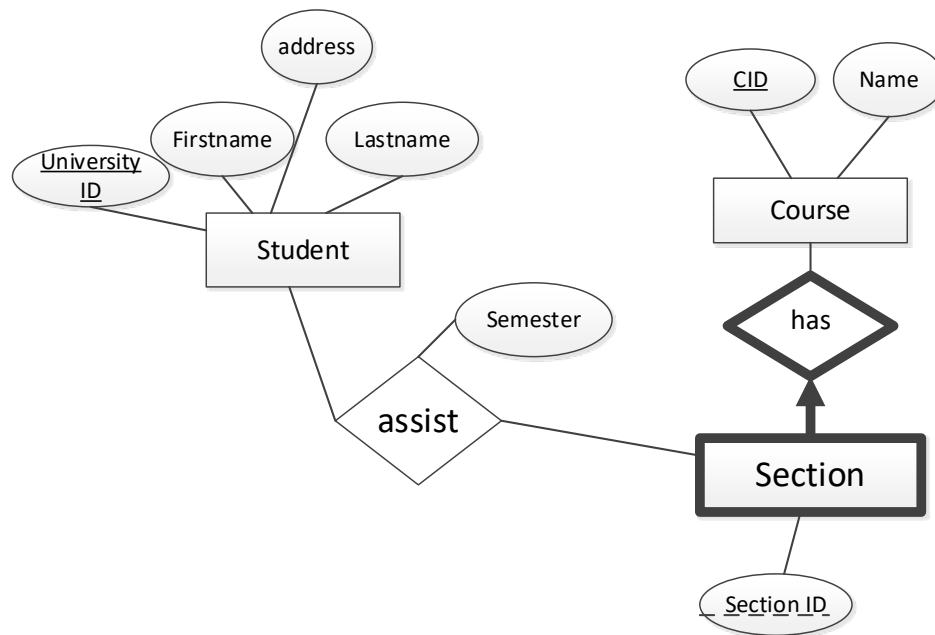
1.



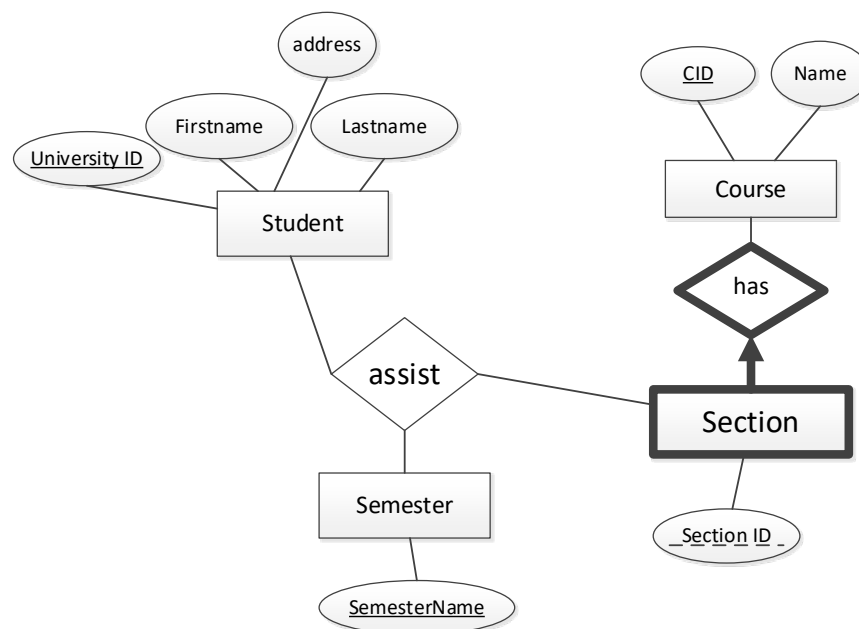
2. The lines connecting entity sets and relationship set are bold lines.



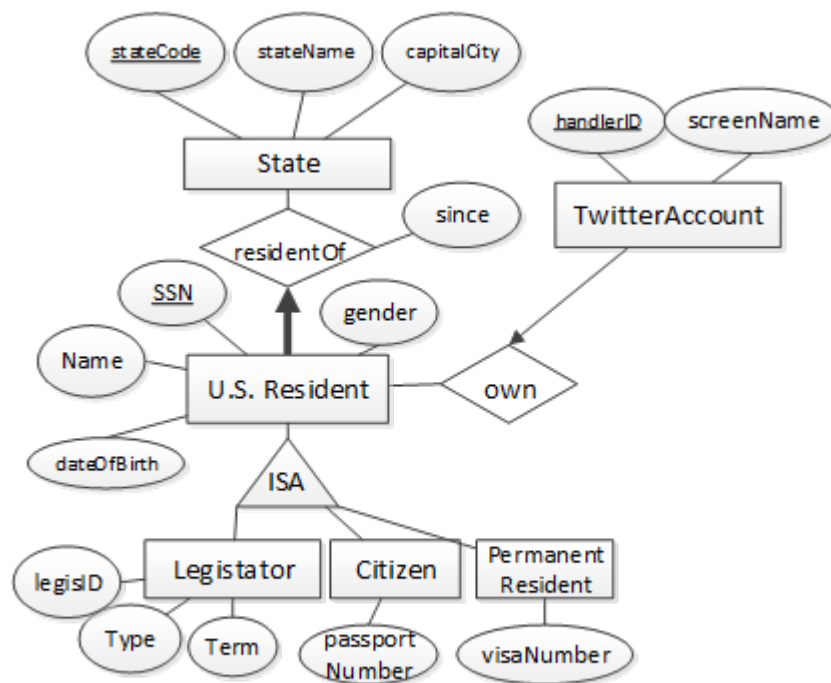
3.



4.



5.



Legislator overlaps Citizen

Citizen does not overlap Permanent Resident