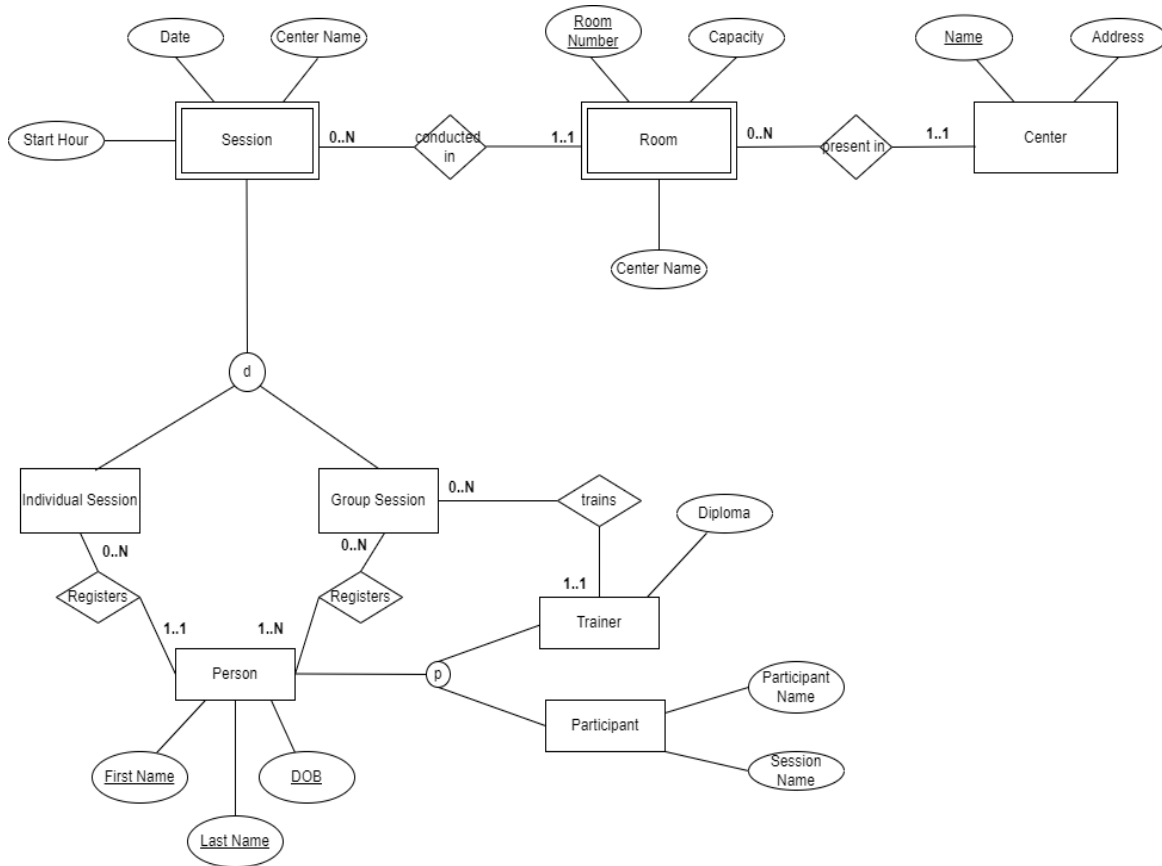


Homework No #1. IE6700 Data Management for Analytics

Group 25: Srinidhi Aduri, Surbhi Virendra Wahie

★ Problem 1: Chapter 3,3.1E:

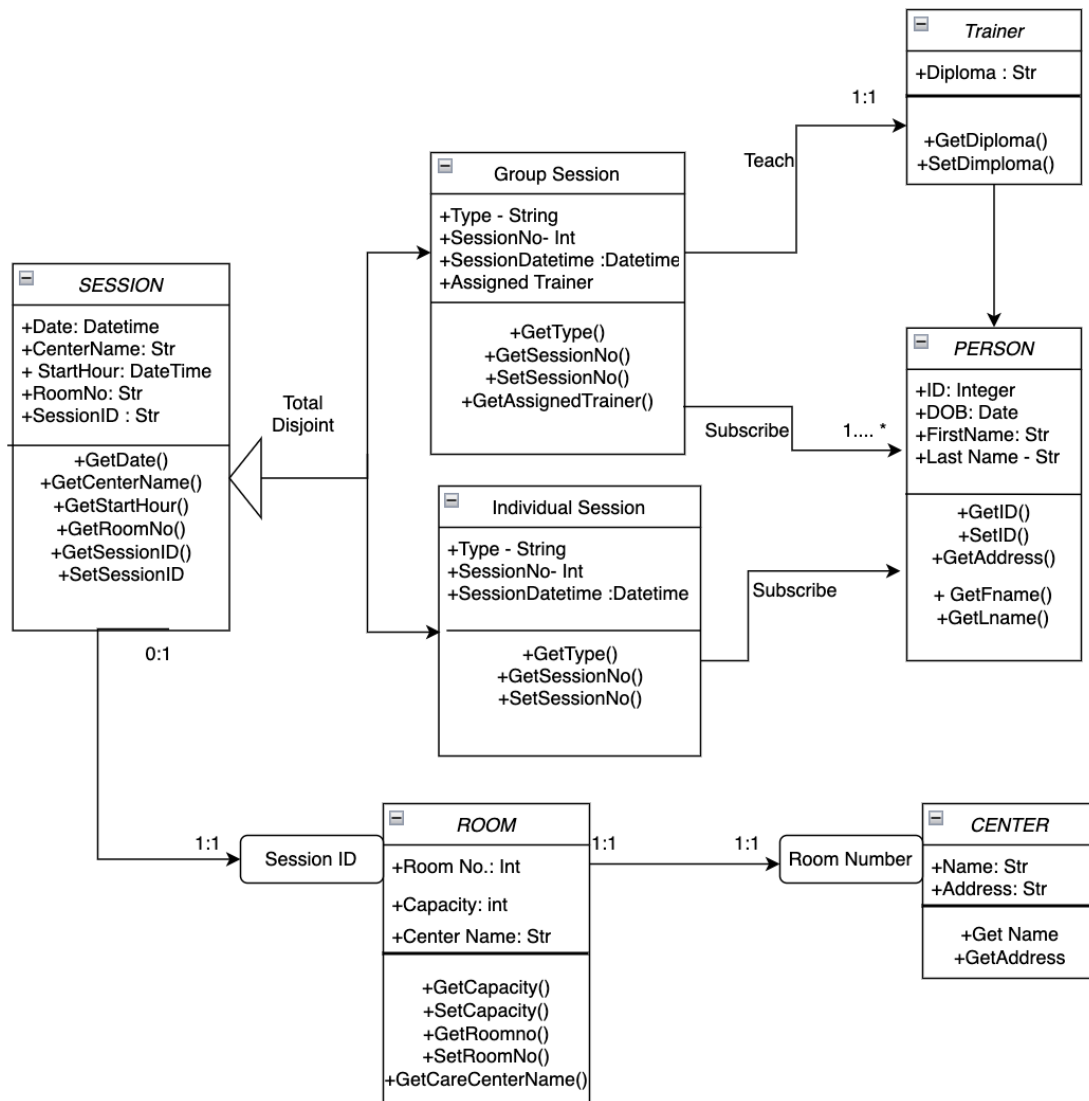
Enhanced entity-relationship:



Limitation:

- Trainer is NOT allowed in individual session.
- Only one trainer can be assigned in the group session.

UML Diagram:

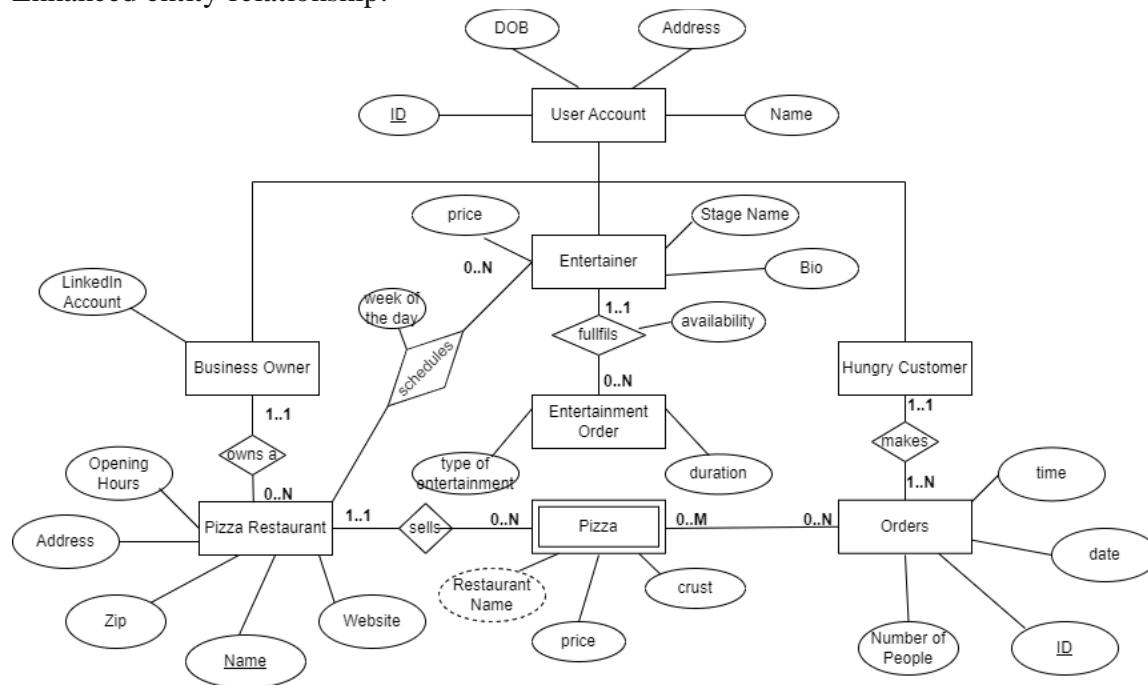


Limitations:

- The group session must depend on the room capacity and should not exceed it.

★ Problem 2: Chapter 3,3.3E:
Pizza delivery with entertainment start-up database:

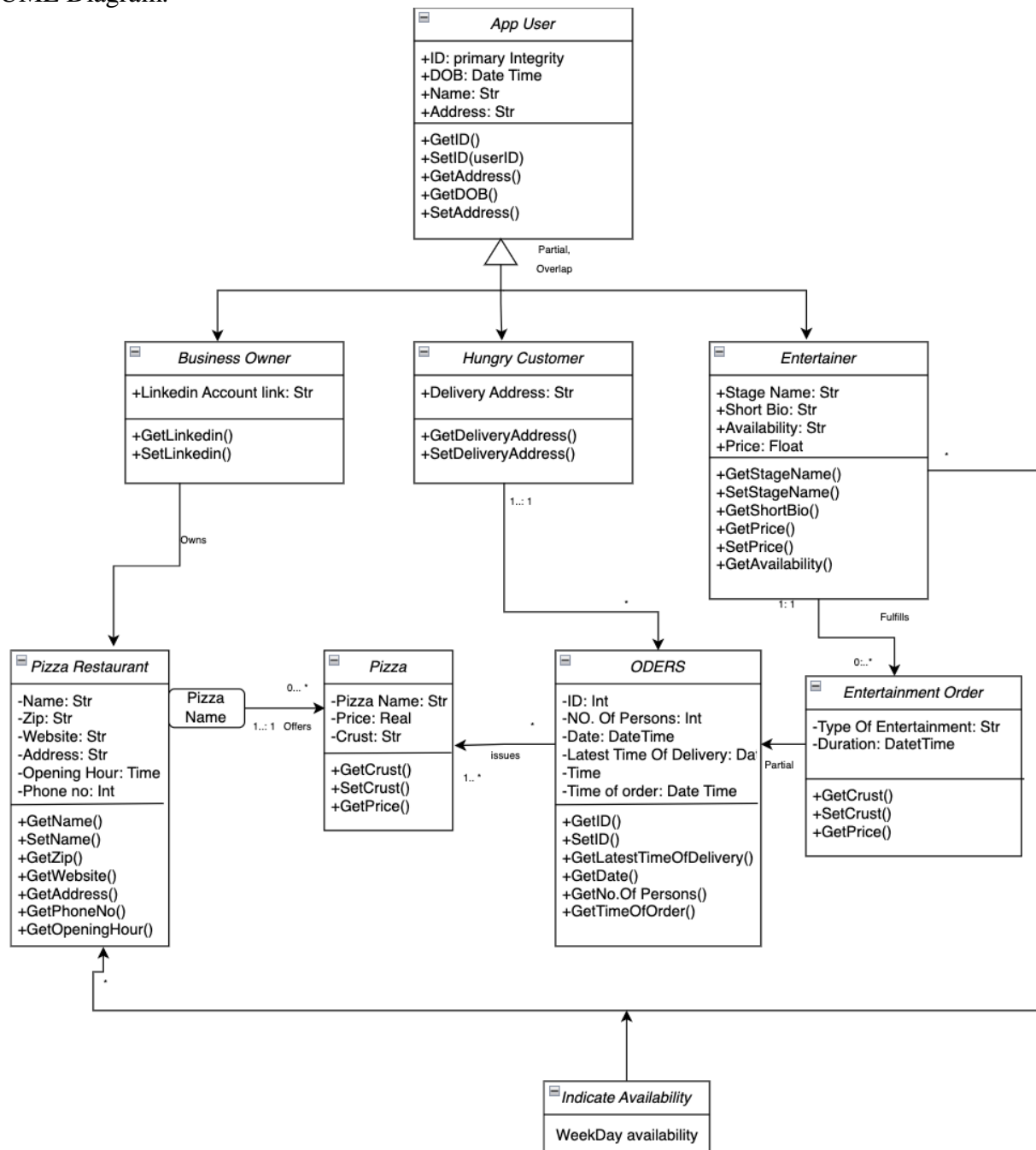
Enhanced entity-relationship:



Limitations:

- Location must also be defined to find the nearest Pizza restaurants near customer.
- More time will be taken to complete entertainment order.

UML Diagram:



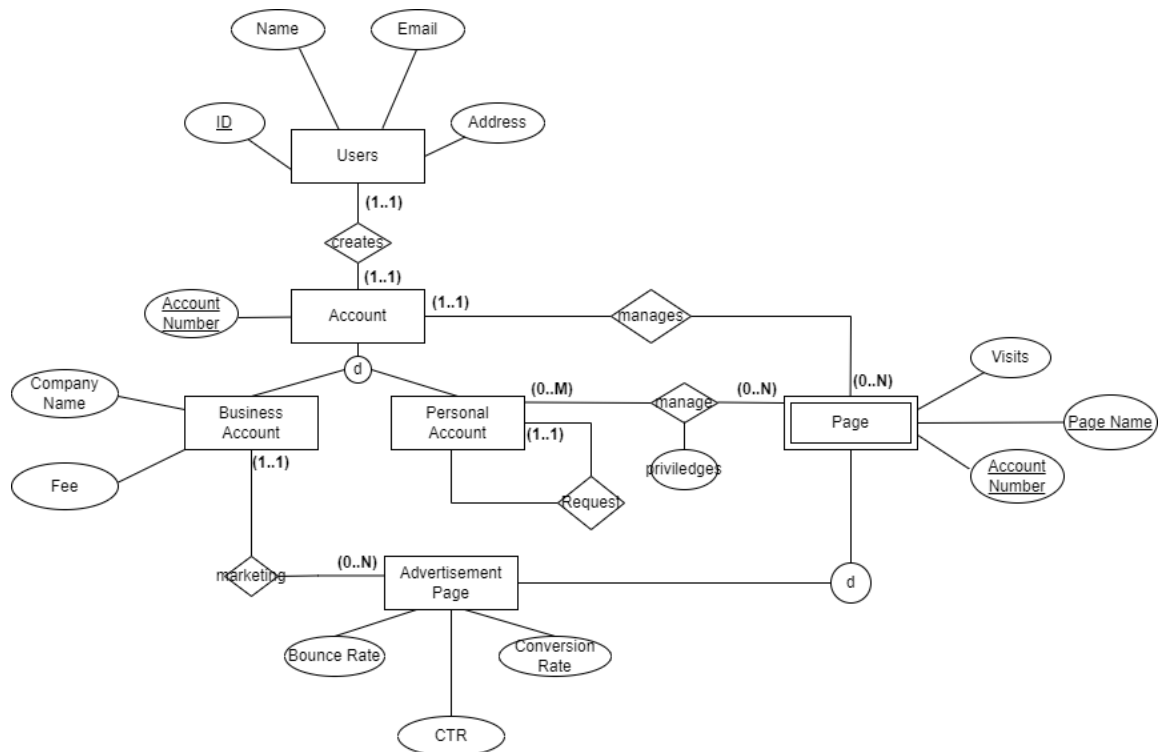
Limitations:

- The model must contain order history of the customer. And get the feedback from the customers to help improve.

★ Problem 3: Chapter 3,3.5E:

A social network site, Facepage was founded. Create a Database ER and UML

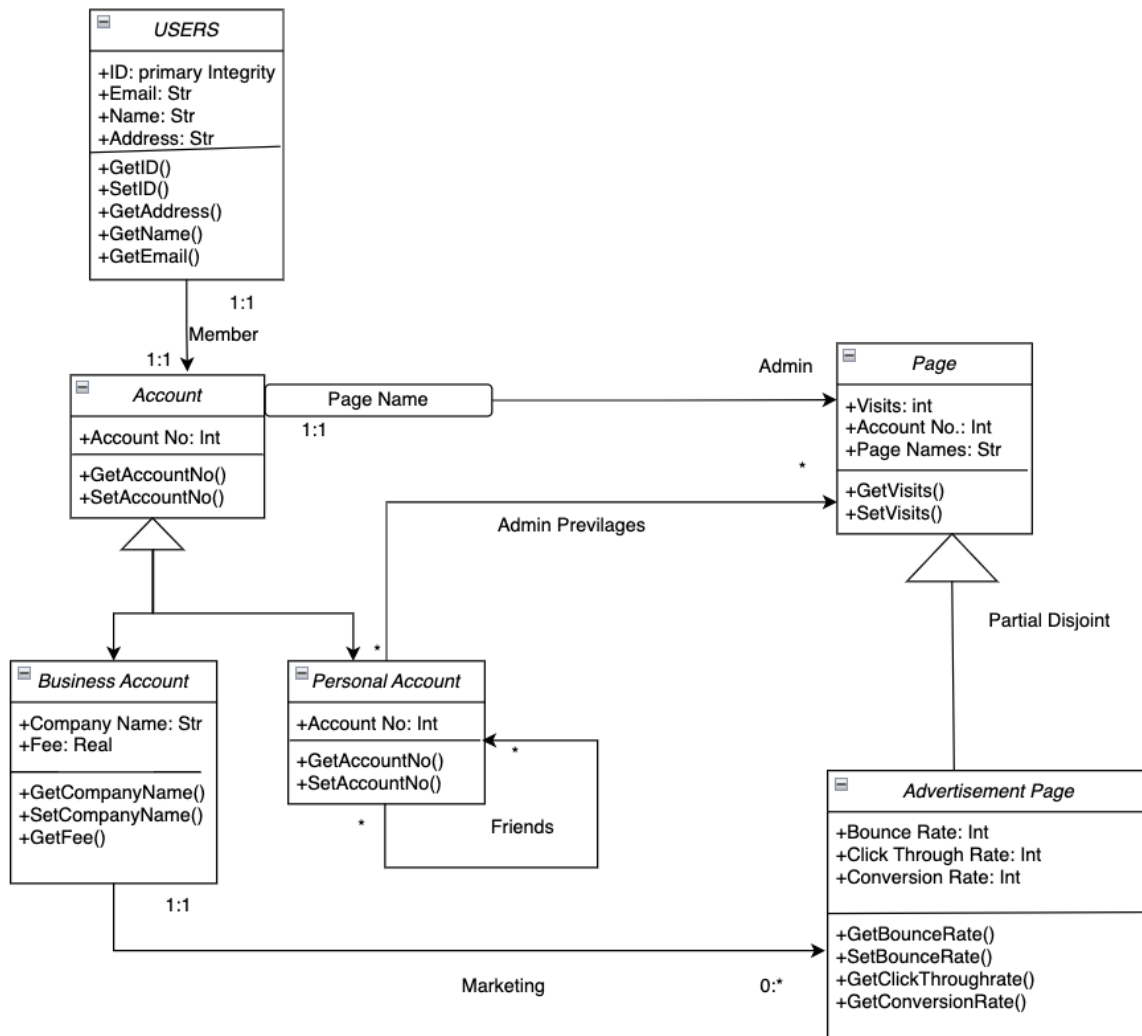
Enhanced entity-relation Diagram:



Limitations:

- The user data is not secure, there's no other security to hide the data.

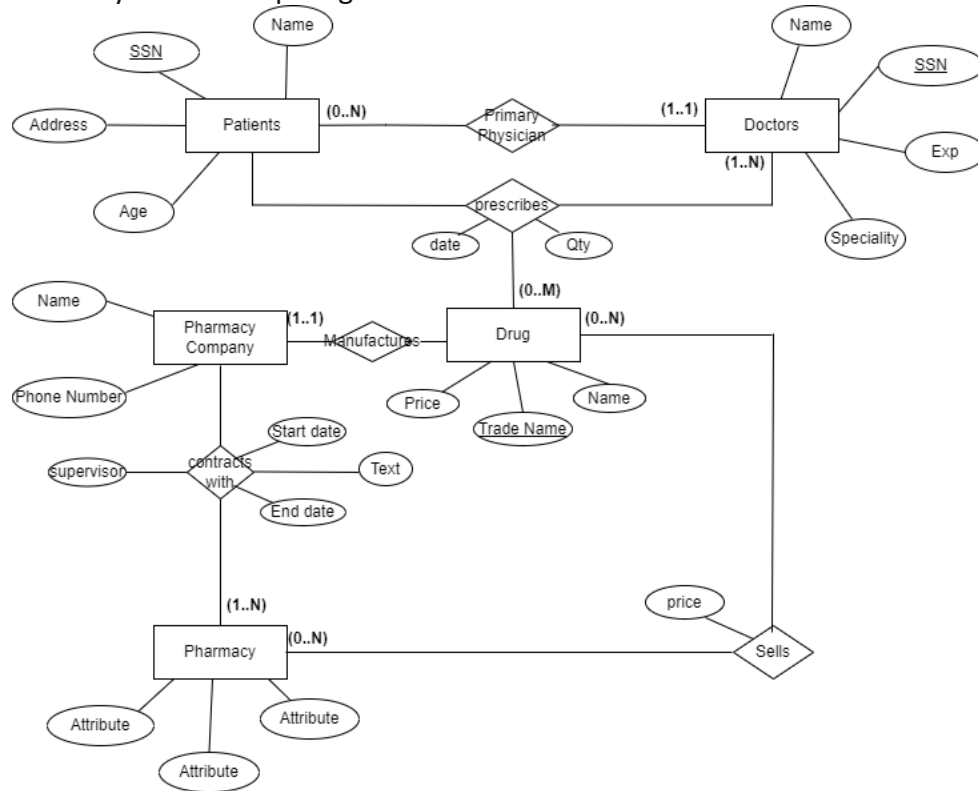
UML diagram:



Limitations:

- The Facepage is not able to track advertisement Page history.

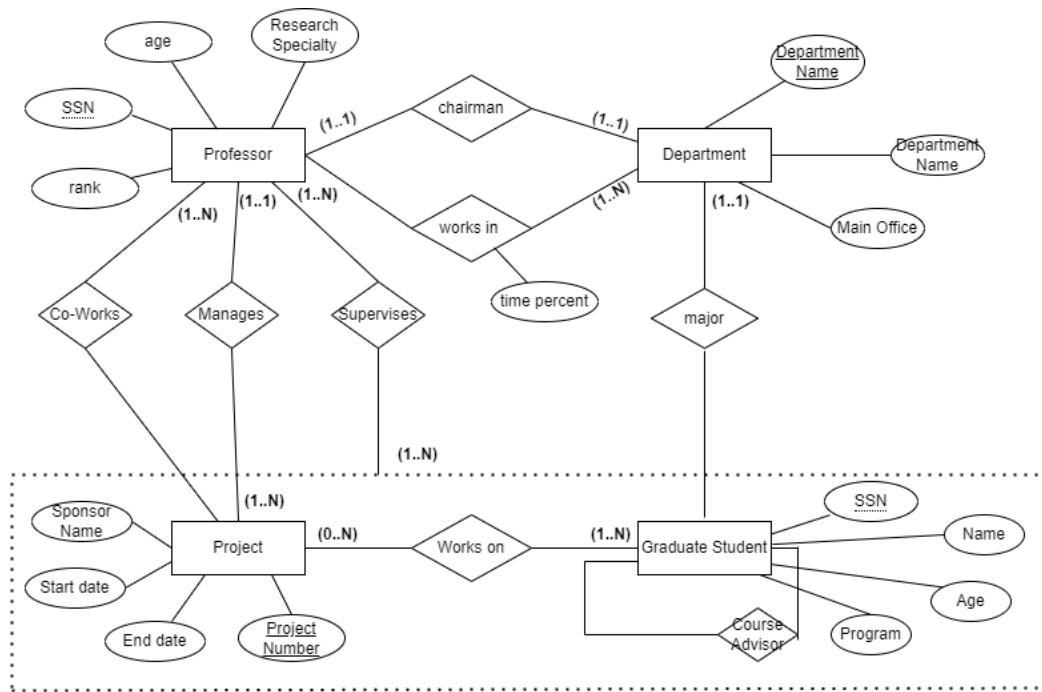
- ★ Problem 4: The Prescriptions R-X chain of pharmacies database:
Enhanced entity-relationship diagram:



Limitations:

- The limitation we found here is, the system is not capturing patient's history with the primary provider.
- ★ If the Price of every drug is same all over, the changes made in drug attribute will be independent of pharmacy. That is price attribute of the drug will be constant all over. So, to do that we need to ensure that there is no variable connecting drug price, pharmacy, or manufacturer.

- ★ Problem 5: University database:
Enhanced entity-relationship diagram:



- This EER has the basic entities connecting grad Professor, Department, Graduate Students, and Project.
- This also show the effective use of DBMS in a Grad school. The course advising is also done my grad students.