ASSIGNMENT 1

In this assignment, you will create a relational data model for a university enrollment system.

Before starting, it would be helpful if you read more about Entity Relationship (ER) diagrams. Following are some suggested links:
https://www.smartdraw.com/entity-relationship-diagram/
https://www.lucidchart.com/pages/er-diagrams
http://jackzheng.net/teaching/archive/cis3730-2010-fall/files/1.5-erd.pdf

A nice tool to draw ER diagrams online is: https://www.draw.io/. Another tool is ERDPlus - https://erdplus.com/

The key entities in the university enrollment diagram would be:

1. Student having following properties:
    - Netid
    - First Name
    - Last Name
    - Major
    - IsGraduate (Boolean indicating whether they are a graduate student)

2. Course having following properties:
    - Course ID
    - Course Name
    - Department
    - Semester
    - Year

3. Professor having following properties:
    - Netid
    - First Name
    - Last Name
    - Rank
    - Department

4. Department having following properties:
    - Code
    - Name
    - Chairman

Following are details about the relationships:
- A student can enroll in many courses
- A professor can teach many courses
- A professor can advise many graduate students
- A department can have one professor as chairman
- You have to ensure that the schema is normalized (3rd Normal Form)

What to turn in:

- Entity Relationship diagram

- Relational model corresponding to the ER diagram.
An example of how to represent a relational model is:

CUSTOMER (CustomerID, Name, Address, Phone)
ORDER (OrderNumber, OrderDate, SalesPerson, CustomerID (fk))
ORDERITEMS (OrderNumber, ItemNumber, PartNumber, Quantity, Price)

- SQL code to create the tables above.