

COSC6340: Database Systems

Homework: ER diagram

1. Model an ER diagram without normalization for our University database which contains information about

- Students (identified by PeopleSoftID)
- Courses (identified by the unique course id)
- College (identified by the unique name/code)
Example: NSM for College of Natural Science and Mathematics
- Department (Identified by department code/name) both academic as well as non-academic
Example: Department of Computer Science –academic, HR – non-academic
- Enrollment (number of students in MS,BS and Phd ,international/transfer)
- Faculty (identified by PeopleSoftID)
- Staff (identified by PeopleSoftID) e.g Office Assistant comes under staff
- Classroom (identified by ClassID) provide details such as number of projectors, board.
- Parking Information
(Permit number, Permit type, date of expiry)
- Library Information
(Identified by PSID)

You can include your own attributes. State your constraints and assumptions.
Use Old ER notation to draw the diagram.

2. Decompose the above database into 3NF through normalization.
Show the steps of database being normalized into 3NF

3. Draw the ER diagram for the University database being normalized into 3NF.
Use UML notation to draw this ER diagram.

Do not attempt to copy any similar model from the web especially Oracle.
You can use any tools to draw the ER diagram or hand-sketch it and scan the diagram.
Combine the answers in a single PDF file and email it to TA with the below mentioned attachment name and subject line.

Filename: COSC6340_ER_teamx.pdf [x – team number]
Subject: COSC6340_ER_teamx