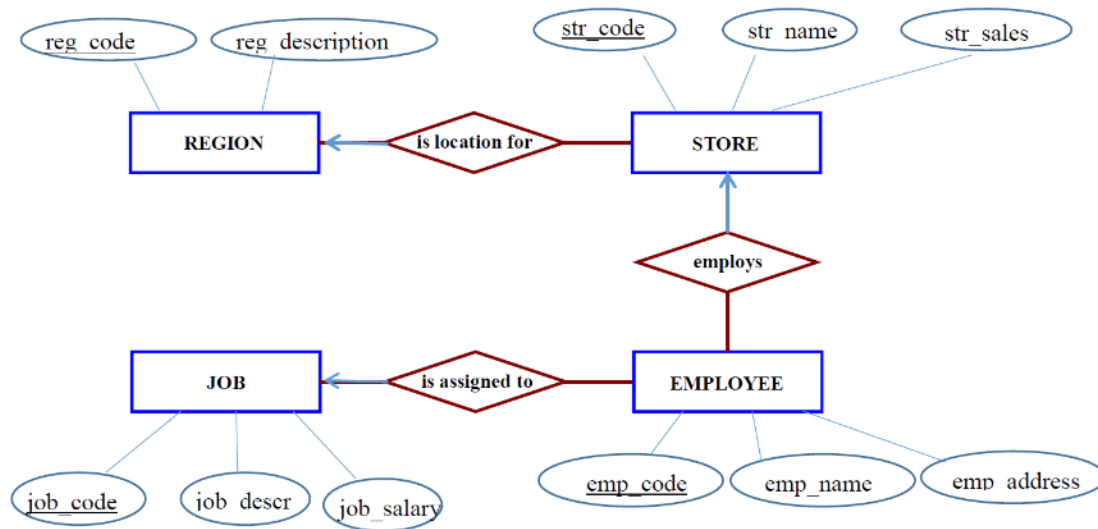


Metro State University  
ICS-311-50 Summer 2023  
Class Assignment 4

Question 1 ( 5 points )

Given the following ERD for a ProdCo. company:



- a) Identify all relationships and their cardinality and write the corresponding business rules.
  
  
  
  
  
  
  
  
  
  
- b) Show the relational schema for the database. Make sure to clearly indicate primary keys and foreign keys.

## Questions 2: ERD design ( 5 points)

You are hired to set up a relational database for a small community hospital. The first thing you do is to go to the hospital and find out the attributes that need to be stored, and their inter-relationships. Here are your findings:

- Every room has a unique room number (integer).
- Every room has one designated usage (char [40]), but different rooms may have the same usage.
- Every patient is assigned a room, but many patients may be assigned to the same room.
- Every patient has a unique patient number (integer)
- Every patient has a name (char[40]) which is not necessarily unique.
  - A patient may be treated by more than one doctor, and a doctor may attend to more than one patient.
- Every doctor has a unique doctor number (integer) and a unique phone (char[10]).

Outline the key features that will be shown in the diagram namely Entity Sets with attributes, Relationships (types) between Entities.. Don't draw the ER diagram..

