



CSCI 585 - 2021 - HW1 Rubrics

ER- Diagram - 5 Marks

We will deduct points for not following the submission requirements from next homework. Submission file formats must be taken seriously.

Fully depicted important entities, attributes and relationships mentioned in problem description should be included

- PK and FK should be marked Properly.
- ER Diagrams should have representation of Strong and Weak relationships. A Strong relationship should be indicated by adding the referencing foreign key to the primary key of the entity. They should be distinguished by dashed and solid lines.
- ER diagrams should use meaningful notations that are standard and discussed in class (Crow's Foot).

Deduct 0.5 For each missing/non-sensible entity/relationship

Deduct 1 For any weird or different notation other than Crow's Foot

Deduct 1 If PK and FK not marked for any (1 or more) entities

Deduct 1 If there are 1 or more instances of strong relation shown in place of weak and vice-versa

README - 1 Mark

All assumptions must make sense.

Deduct 0.5 For each assumption that doesn't make any sense

Deduct 0.5 For incomplete explanation of design

Report should discuss the tradeoff or design decisions that were taken rather than refer to the homework description.

Entity List:

Operation_cost, Owners, Loan, Medical_records, Business, Doctor, Patient, Payment, Front_staff, Scheduler, Insurance_Information, Billing, Insurance_providers, Treatment

CSCI 585 - 2021 - HW1 Readme Sample

Doctors (0 to many) - Business (1 to many) Relationship (Many - Many). Doctor could have his/her own clinic. Business manages doctors and checks their license(attribute of Doctors entity) validity based on start date and end date.

Owners (1 to many) - Business (1 to many) Relationship (Many - Many). Owner could have multiple business and each business could have multiple owners.

Patients (0-many) - Medical Records (1 - 1) Relationship (one - Many). Each patient can have multiple medical records but not necessarily have at least one. Each record is associated with only one patient.

Owners (0-Many) - Loan (1-1) Relationship (one - Many). Loan will have information of Loan_id bank_id, name , loan amount, rate of interest, tenure etc. Each owner can take zero or many loans and each loan agreement will have a one and only one owner.

Business (1 to Many) - Front staff (1 to 1) Relationship (One - Many). Each staff will be working for only one business but each business could have multiple staff

Treatment (0 to Many) - Billing (1 to 1) Relationship (One - Many). Each treatment type could appear in multiple billing records and each billing record will be having only Treatment type.

Front Staff (1 to Many) - Insurance Providers (1 to Many) Relationship (many to many). Each staff could deal with multiple insurance providers and each insurance provider could be handled by multiple staffers.

Front Staff (1 to Many) - Scheduler (1 to 1) - Relationship (1 to many). Each staff could schedule multiple multiple patients but each scheduler record must be handled by only one staff

Scheduler (1 to 1) - Doctor (1 to Many) - Relationship (1 to many). Each scheduler record could have only one doctor but each doctor could be in multiple schedules

Patient (1 to Many) - Scheduler (1 to 1) - Relationship (1 to many). Each patient could schedules multiple treatments but each schedule should deal with only one patient

Business (1 - Many) - Billing (1 to 1) - Relationship (1 to many)

Patient (0 to Many) - Insurance Information (1 to 1) - Relationship (1 to Many). Each patient could hold multiple insurances but not necessary to hold at least one. Each insurance bought should be associated with only one patient.

Expenditure profits and loss can be calculated using SQL commands on the entities payments, billing, doctor, staff.

Supplies could be a multi valued attribute