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MAT NUMBER: CMP2203675

DEPARTMENT: SOFTWARE ENGINEERING

ASSIGNMENT

create diagrams for a hospital management system using the following tools and instructions:

Details:

Diagram Types Required:

ERD (Entity-Relationship Diagram): This will show the relationships between entities in the hospital management system, such as Patients, Doctors, Appointments, etc.

Use Case Diagram: This will illustrate the different functionalities and interactions of users within the system (e.g., patient registration, scheduling appointments, viewing medical records).

SOLUTION

1. ENTITY SET

- a. Hospital
- b. Patient
- c. Medical Record
- d. Doctor

2. ATTRIBUTES OF THE ENTITIES

- a. Hospital: Hospital ID, city, address, name, patient ID, and doctor ID.
- b. Patient: Patients' ID, patient's name, address, diagnosis, record ID, and hospital ID
- c. Medical Record: Record ID, problem, date of examination, and patient ID.
- d. Doctor: Doctor ID, name, qualification, salary, and hospital ID.

3. ENTITY RELATIONSHIP

- Hospital has multiple patients, thus it is a **one-to-many relationship**.
- Since a single hospital has many doctors, the relationship that exists is **one-to-many**.
- Since a doctor is associated with many patients, it is a **one-to-many relationship**.
- Since a single patient has multiple medical records, thus it is a **one-to-many relationship**.

4. USE CASE DIAGRAM

