NAME: GWAM CHUKWUEBUKA MOSES

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
- $d.\, \mathsf{Doctor}$

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

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

4. USE CASE DIAGRAM

Gender Age Names Gender Name Employee Age MR No Patient Doctor Specialist Fill in Registrate Diagnos MR No Medical Record Registration Set up Drugs MR No Date Reference Poly Assurance Date Recap ICD Health Office Report Administration Letter No Reception Endorsem Delivery

ER Diagram of Hospital Information System