ID NO :- 20CP041 & 20CP042

Name : - Megh Shah & Rudra Rana

:: Project Report ::

Hospital Database Management System
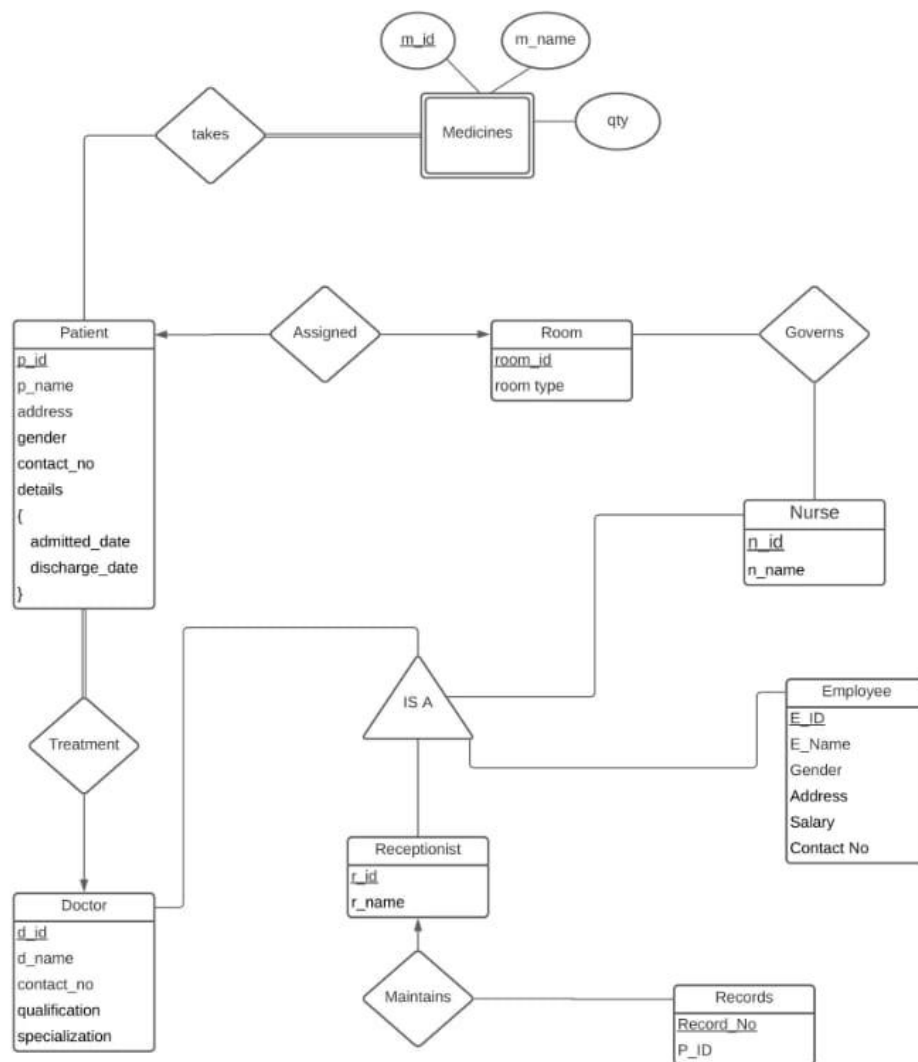
Name: Megh & Rudra	ID No:	Batch:
Time: 02.00 PM to 04.00 PM	20CP041 20CP042	Date: 29/10/2021
Subject: DBMS	Code: 2CP01	A.Y. 2021-22

❖ Functional Requirements :-

1. Every Employee can be a Doctor or a Nurse or a Receptionist.

2. Every Doctor can treat many patients or no patient.

3. Every Patient is treated by one and only one Doctor.

4. Every Patient takes more than one Medicine.

5. Every Patient is assigned to one room.

6. Every nurse Govern at least one room.

7. Every Receptionist Maintain all Record of patients.

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❖ Relational Schemas :-

Doctor1 (**d_id** , d_name, qualification, specialization)

Doctor2 (*d_id* , contact_no)

TREAT_PATIENT1 *(p_id*, p_name, address, gender, admitted_date, discharge_date, *d_id*)

TREAT_PATIENT2 (*p_id*, contact_no)

Patient1 (**p_id**, p_name, address, gender, admitted_date, discharge_date)

Patient2 (*p_id* , contact_no)

Takes (*p_id* , *M_ID*)

Medicines (**M_ID** , M_Name , Qty)

ROOM (**room_id**, room_type)

Room_assigned (*p_id*, *room_id*, room_type)

NURSE (**n_id**, n_name)

Governs (*room_id*, *n_id*)

RECEPTIONIST (**r_id**, r_name)

Maintain_Record (*r_id*,**Record_No** , **P_ID**)

Employee1 (**E_ID**, E_Name, Gender, Address, Salary)

Employee2 (*E_ID* , Contact_No)

❖ Functional Dependancy :-

Receptionist :
{ r_id } → { r_name }

Maintain_Record:
{ record_no } → { r_id, p_id }

Room:
{ room_id } → { room_type }

Room_assigned:
{ room_id } → { p_id, room_type }

Nurse:
{ n_id } → { n_name }

P1:
{ p_id } → { p_name }

Medicines:
{ m_id } → { m_name }

E1:
{ e_id } → { e_name , Gender }

D1:
{ d_id } → { d_name }
{ d_id } → { qualification , specialization }

Treat_Patient1:
{ p_id } → { P_name, d_id }

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Some queries related to this database management system:

1) Find salary and employee id of doctors from Employee Table.
➔ Query:

```
2  select e_id, salary from Employee1
3  where e_name like 'Dr.%';
```

➔ Output:

	e_id [PK] character varying (10)	salary numeric (8,2)
1	E001	56321.21
2	E002	45632.95
3	E003	68523.87
4	E004	38321.63
5	E005	48321.15

Data Output   Explain   Notifications

2) Find contact no. of the patients which are coming from Anand.
➔ Query:

```
6  select contact_no from
7  patient2 inner join patient1 using (p_id)
8  where address = 'Anand';
```

➔ Output:

Data Output   Explain   Notifications

	contact_no character varying (10)
1	9737858201

3) Which patients are taking medicine Livera?
➔ Query:

```
11  select patient1.p_name from patient1 where
12  p_id =
13  (
14      select p_id from takes inner join medicines
15      using (m_id) where m_name = 'Livera'
16  );
```

➔ Output:

Data Output	Explain	Notifications

p_name character varying (10) 🔒
1	Nishadh

4) Find employees whose salary is between 20,000 and 50,000.
➔ Query:

```
19  select e_id, e_name, address from Employee1 where
20  salary between 20000 and 50000;
```

➔ Output:

Data Output	Explain	Notifications

p_name character varying (10) 🔒
1	Nishadh

5) Display receptionist and patient name which are associated with each other.
➔ Query:

```
23  select r_name, p_name from receptionist, patient1, maintain_record
24  where maintain_record.p_id = patient1.p_id and receptionist.r_id = maintain_record.r_id;
```

➔ Output:

Data Output	Explain	Notifications

	r_name character varying (20) 🔒	p_name character varying (10) 🔒
1	Vedant	Megh
2	Vedant	Karan
3	Prachi	Nishadh
4	Dharmik	Mamm
5	Krupa	Rudra

6) Find nurses who are working in Day Care.
➔ Query:

```
27  select n_name from
28  nurse inner join governs using (n_id) inner join room_assigned using (room_id)
29  where room_type = 'Day Care';
```

➔ Output:

n_name character varying (20) 🔒	
1	Karan

7) How many male and female employees are working in this hospital?
➔ Query:

```
32  select Gender, Count(E_Id)"Total No. of Employee" from Employee1
33  Group by Gender;
```

➔ Output:

gender character varying (6) 🔒	Total No. of Employee bigint 🔒
1	Female	8
2	Male	7

8) Find out the patients who are taking treatment under MBBS doctors.
➔ Query:

```
36  select P_Id, P_Name from Treat_Patient1
37  inner join Doctor1 using (D_Id)
38  where Qualification = 'MBBS';
```

➔ Output:

p_id character varying (10) 🔒	p_name character varying (10) 🔒
1	P001	Megh
2	P002	Nishadh

9) Find out which rooms are used from 01-01-2021 to 30-05-2021.
➔ Query:

```
41  select Room_Id, Room_Type from Room_Assigned
42  inner join Patient1 on
43  (Room_Assigned.P_Id = Patient1.P_Id) and
44  (Admit_Date between '01-01-2021' and '30-05-2021');
```

➔ Output:

	room_id character varying (10)	room_type character varying (10)
1	Rm002	Pre Delux
2	Rm004	Day Care
3	Rm005	Premium

10)   Find out Emolyee Name & Patient Name whose are in same city.

➔ Query:

```
316   select E_Id,E_Name,P_Name from Employee1
317       natural join Patient1
318           where Address IN (select Address from Patient1 );
```

➔ Output:

	e_id character varying (10)	e_name character varying (20)	p_name character varying (10)
1	E013	Dharmik	Megh
2	E001	Dr.Kaushik	Megh
3	E010	Harsh	Nishadh
4	E002	Dr.Rohan	Nishadh

---------------------------- End of the Project ------------------------------------