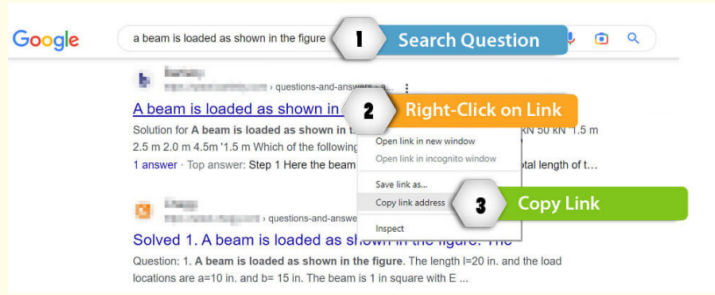


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To do: If you are getting wrong answer or irrelevant answer.

Fix #1 >> We suggest you to follow the directions shown in the below image to get right question link.



Answer

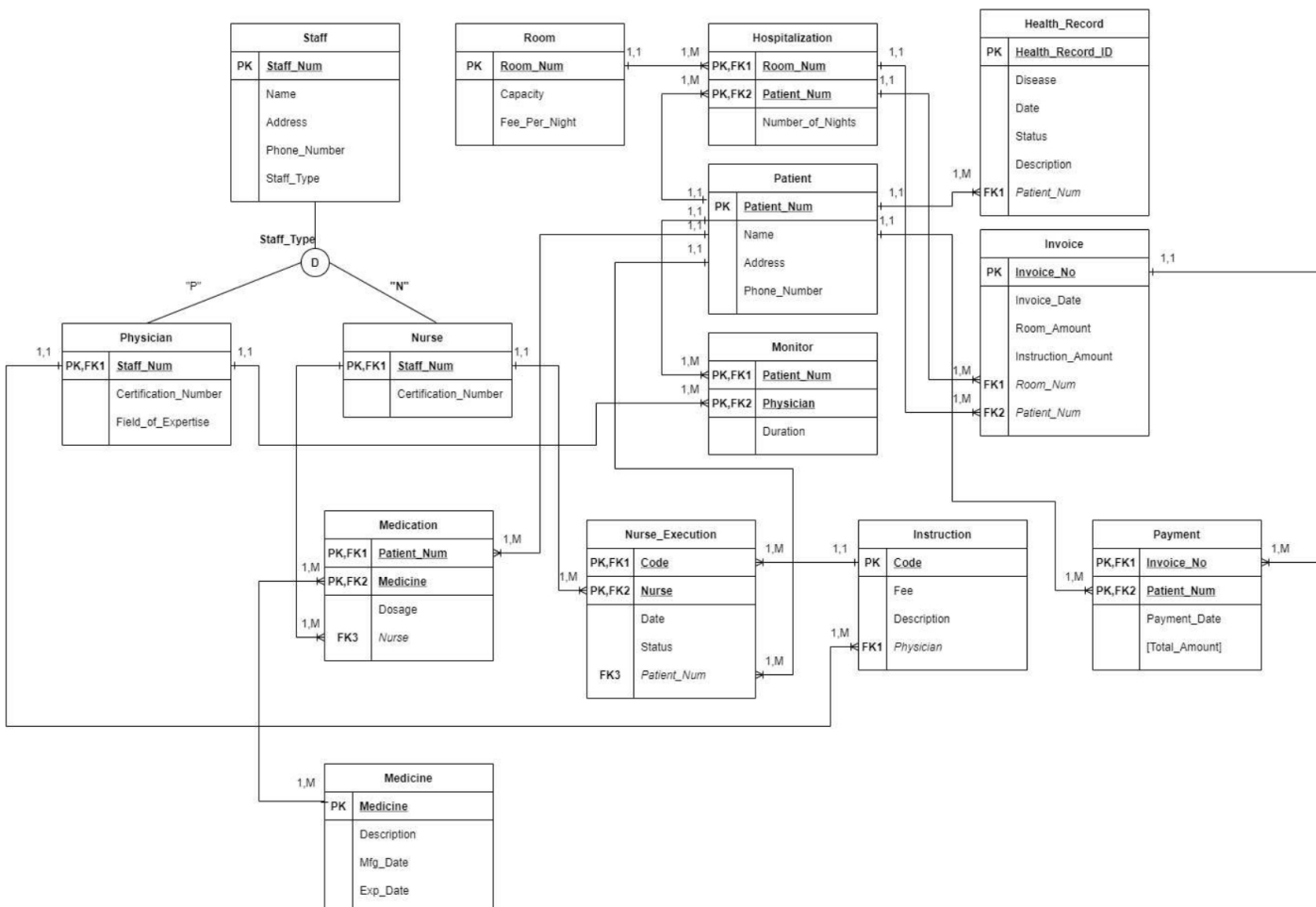
Answer:

EER diagram in Crow's Foot Model

Though the business rules in the given requirements say that patients purchase medicine from outside pharmacies and hospital does not charge for those medicines, Medicine entity has been added since each medicine will have its own attributes like Medicine name, description, Mfg.Date, Exp.Date etc so as to comply with data integrity rules and to avoid data anomalies and satisfying the normalizations rules. Extra attributes and surrogate keys have been added wherever necessary on assumption to be correct.

Since the given requirement is for **EERD**, it has **Staff** entity as **supertype** entity, specialized into **subtype** entities **Physician** and **Nurse** based on the **subtype discriminator** **Staff_Type("P","N")** as a **disjoint constraint**.

Each of the subtype entity **Physician** and **Nurse** has **Staff_Num** as its primary key as a **partial key**, since it inherits the primary key of the strong entity **Staff** while it is also foreign key referencing the primary key of the same strong entity **Staff**.



EERD mapped to Relational Schema as below:

Primary keys are underlined while foreing keys are in italic and with * symbol while partial keys (an attribute being both PK and FK) are shown underlined , italic with * symbol

Staff (Staff_Num,Name,Address,Phone_Number,Staff_Type)

Physician (*Staff_Num**,Certification_Number,Field_of_Expertise)

Nurse(*Staff_Num**,Certification_Number)

Room (Room_Num, Capacity,Fee_Per_Night)

Patient (Patient_Num,Name,Address,Phone_Number)

Hospitalization (*Room_Num**,*Patient_Num**, Number_of_Nights)

Health_Record(Health_Record_ID,Disease,Date,Status,Description,*Patient_Num* *)

Monitor (*Patient_Num**, *Physician**, Duration)

Instruction (Code,Fee,Description,*Physician* *)

Nurse_Execution (*Code**,*Nurse**,Date,Status,*Patient_Num**)

Medicine (Medicine,Description,Mfg_Date,Exp_Date)

Medication (*Patient_Num*,*Medicine*,Dosage,*Nurse**)

Invoice (Invoice_No,Invoice_Date,Room_Amount,*Room_Num**,*Patient_Num**)

Payment (*Invoice_No**, *Patient_Num**,Payment_Date,Total_Amount)

 Likes: 0  Dislikes: 0