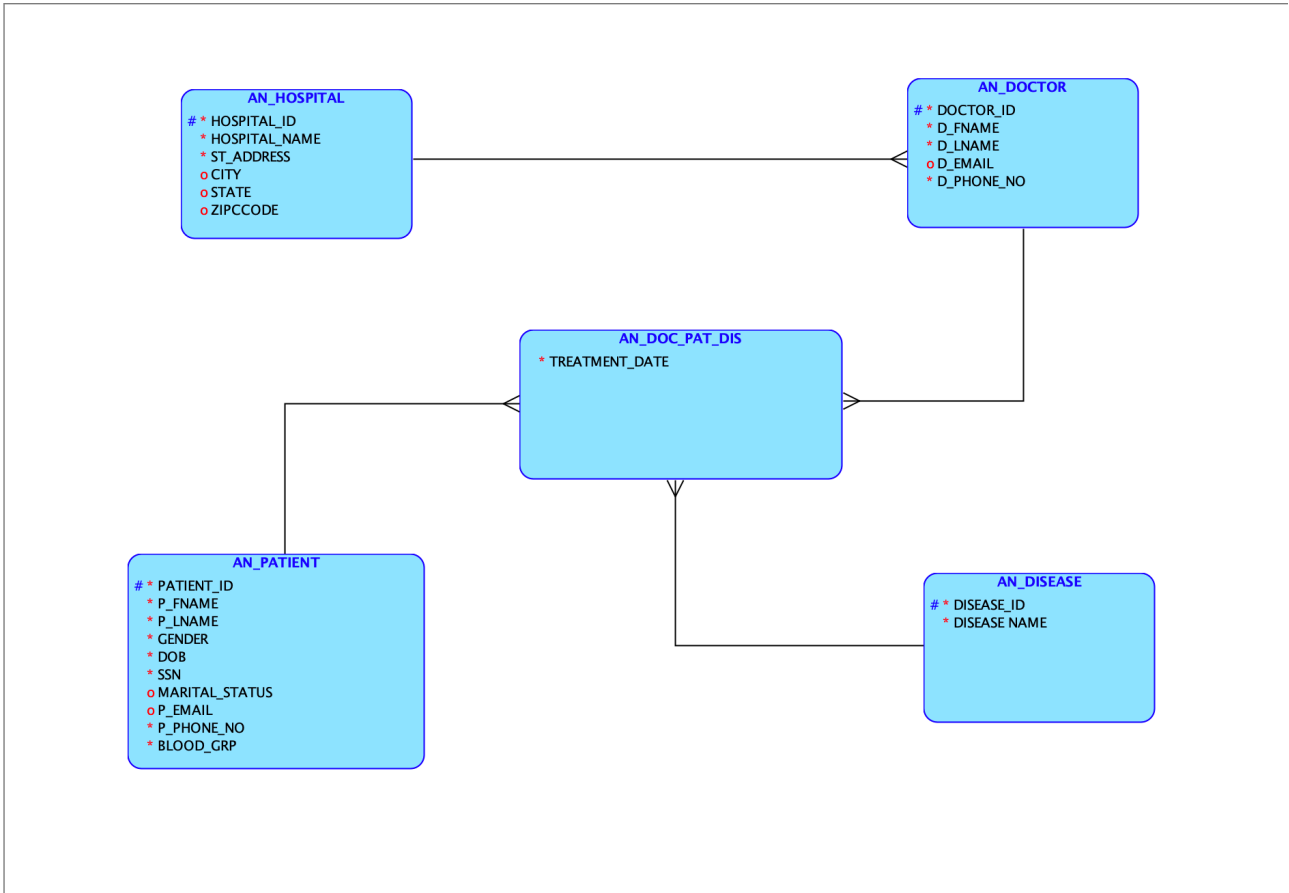
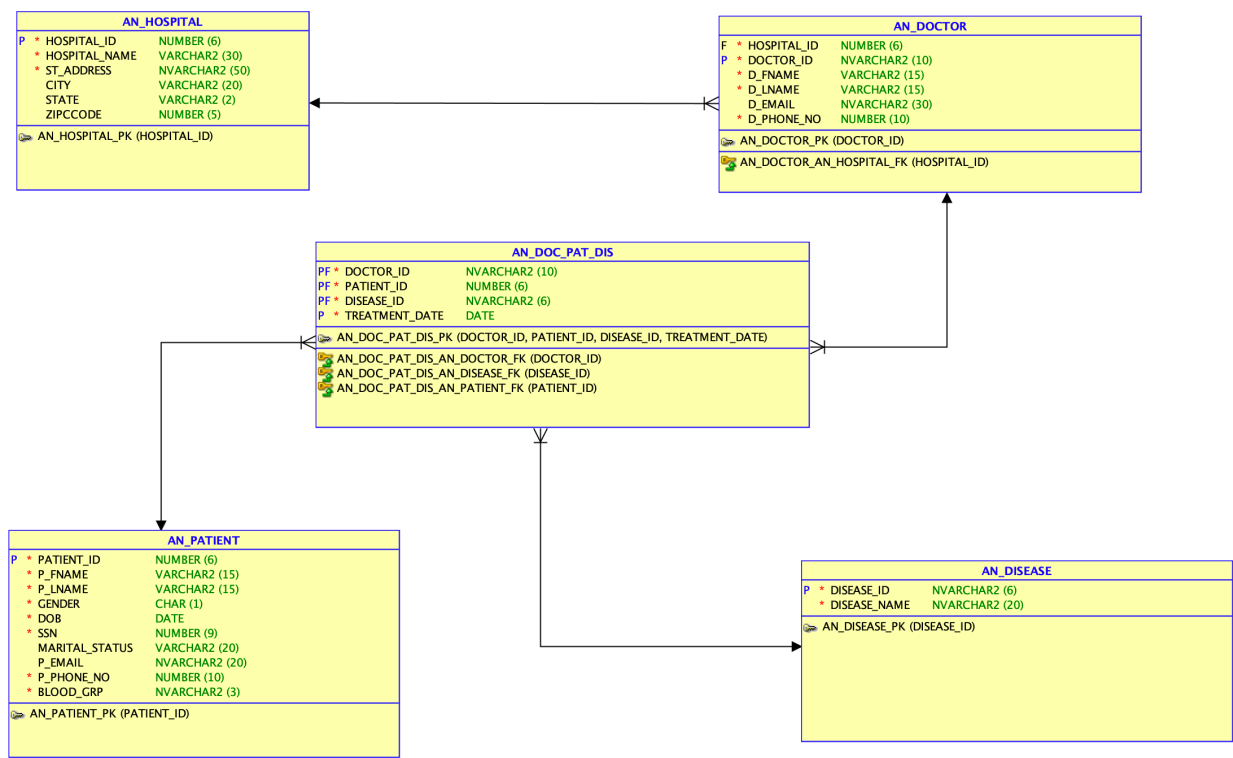


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FALL-22
15 OCT 2022

Q1.
LOGICAL MODEL



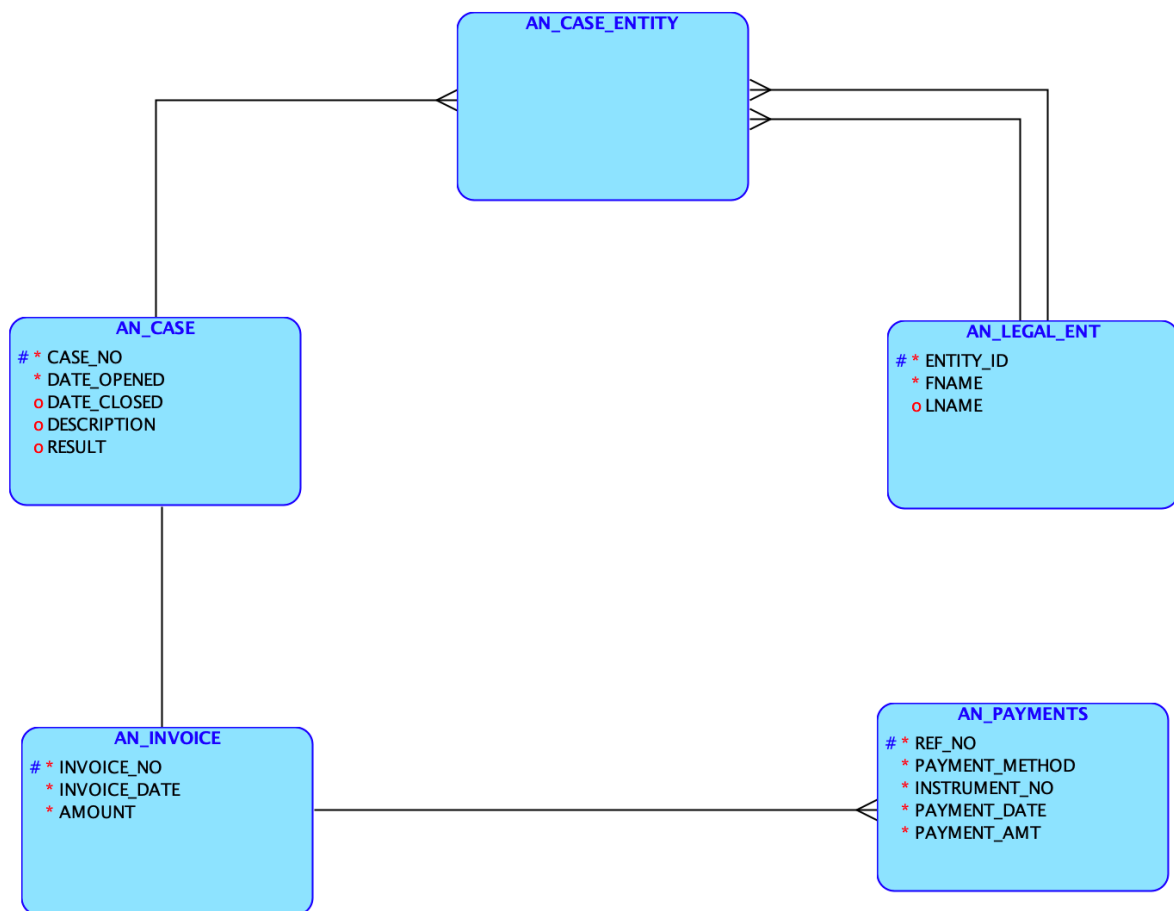
RELATIONAL MODEL



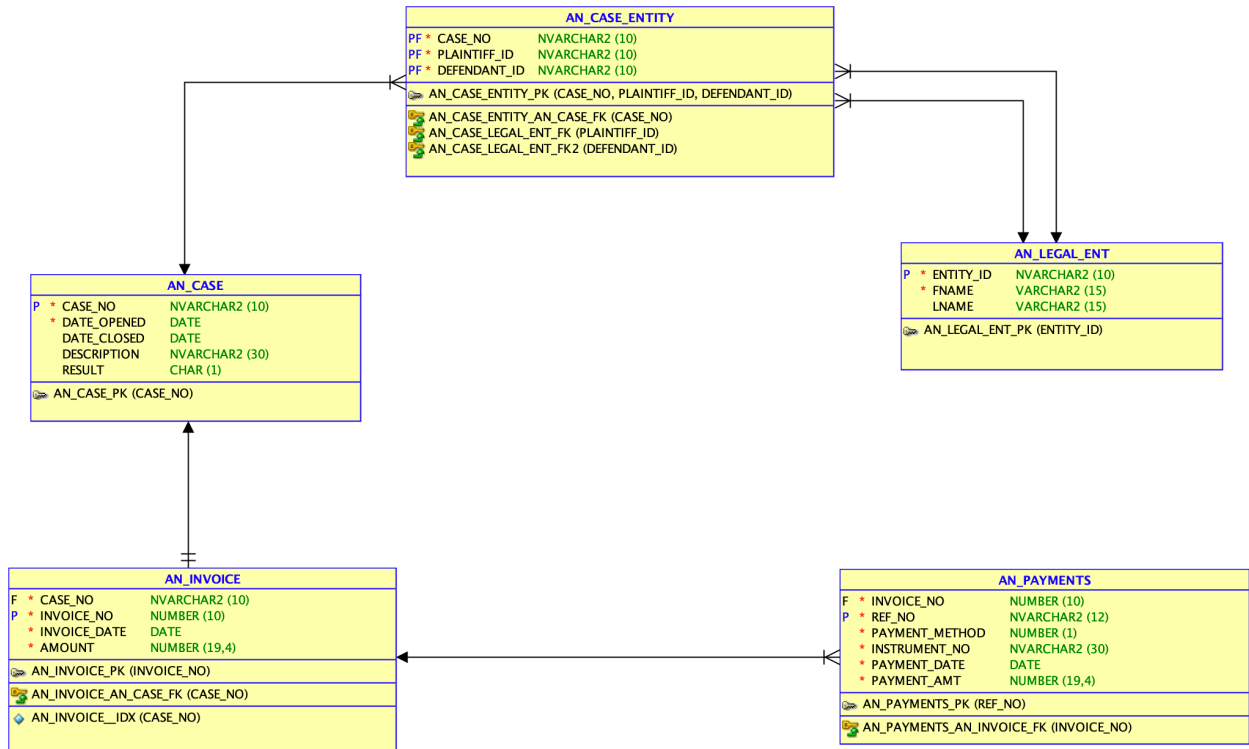
Further Assumptions:

1. Every Patient must be having at least one Treatment with at least one doctor.
2. Every doctor must treat at least one disease.
3. Hospital location is mandatory(St. address, zip, city, state)
4. STATE name has to be a 2 letter abbreviation.
5. ZIPCODE can be either full 9 digit(with a hyphen) or 5 digit.
6. D_PHONE_NO and P_PHONE_NO is a 10 digit number and mandatory for patients and doctors. All numbers will be US numbers so no need for country code.
7. TREATMENT_DATE is Datetime type to store both date and time(it only shows date here in the model even though I selected it as datetime).
8. GENDER is a single character value from M/F/T/O for Male/Female/Trans/Others.

Q2. LOGICAL MODEL



RELATIONAL MODEL



ASSUMPTIONS:

1. Only one invoice will be generated per case. And each invoice belongs to a single case.
2. Further payments to invoice can be done in multiple instalments or multiple methods like CC/ Debit card, cash etc
3. Every case will have an invoice even if it's not closed. Since half of payment will be done in advance before case starts.(no optional)
4. RESULT is only one char as stated in question statement, Also, it can be null and is not mandatory when the case is ongoing.
5. A plaintiff in one case can be a defendant in another case. And vice versa.
6. All AMOUNT values are in USD.
7. INVOICE.AMOUNT is NOT a calculated value from PAYMENTS.AMOUNT. Since payments can be made more than the generated invoice amounts too. (Commission and gratuity)