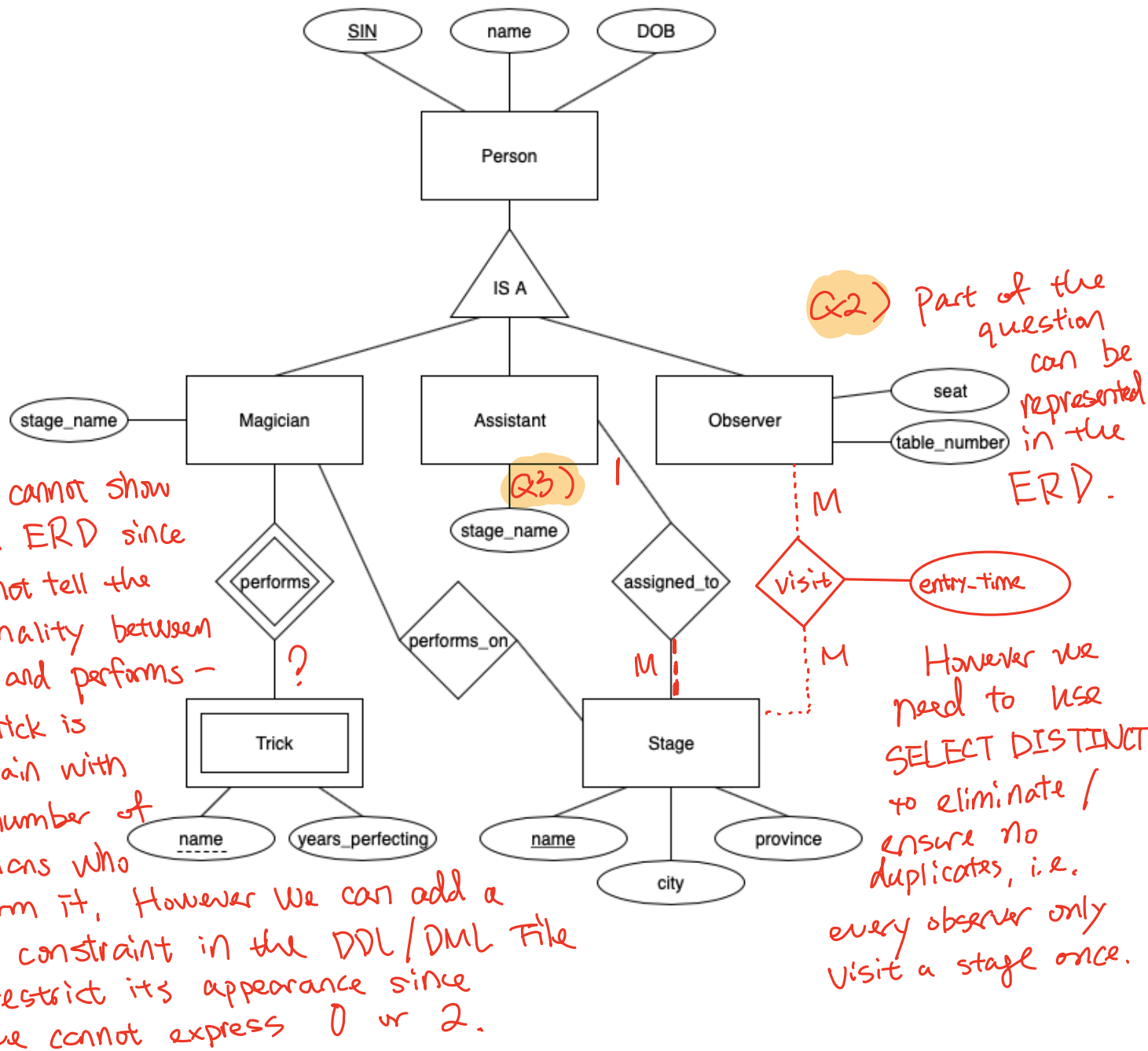


Question 5 [7 marks]

Without knowing the specifics of the multiplicity, you are given a rough draft of an Entity-Relationship Diagram (ERD)² from a member of your design team:



²a reference sheet has been provided for notational consistency, see the end of this test paper. Note: you **must** adhere to the notation on the reference sheet when solving the problem.

Given the ERD on the previous page, you are to directly³ correct⁴ the ERD to reflect the following:

1. Every magician must perform exactly 2 tricks or no tricks at all.
2. Each observer can only visit a stage once. Observers may visit many different stages. Each visit will have an associated **entry_time:datetime**, signifying the date and time which the observer will be permitted to visit that stage. There can be several (or no) observers visiting any stage. Observers' attributes have no bearing on the visit.
3. Every assistant must be assigned to exactly one stage. Additionally, every stage may be assigned multiple assistants and not every stage must have an assistant assigned.

NOTE: you may not make any additional assumptions (i.e., you must take all avenues in to consideration) and if there is no valid way to demonstrate this in an ERD, then you must explain why and how you would validate this from a DDL/DML perspective.

Submission Details

You must submit one PDF file called **erd.pdf** on the CSC343 MarkUs platform (<https://markus108.utm.utoronto.ca/csc343s22/>) under the assignment called "Test". **erd.pdf** may be hand drawn and must be legible, clear, and concise.

³you should write your answers directly on the ERD that was given, rather than drawing a new ERD. You are, however, welcome to draw a new one if you'd prefer.

⁴you must utilize Chen's Notation. A reference sheet has been provided towards the end of this exam.