

## Assignment C: Reading E-R Detail

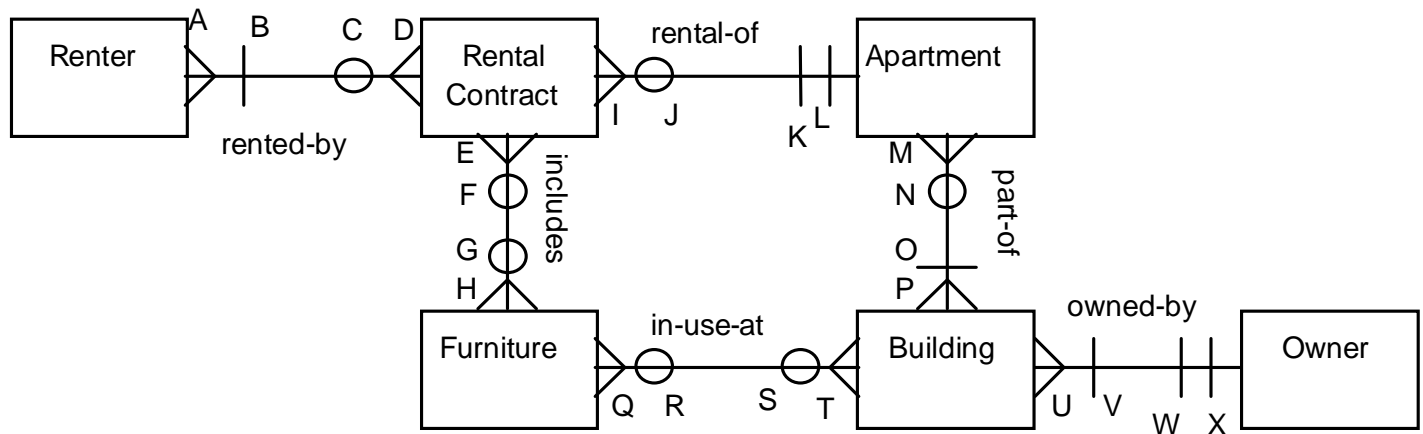
Together-While-Still Apartments Inc. (TWSA) manages the rental of furnished apartments and lofts using a database whose Logical Data Model is shown here. Answer the questions below based this model only (i.e. "Discover, Don't Invent")

**A yes/no answer is not sufficient. You must cite what specific part of the data model provides the answer.**

The connectivity symbols are labeled with letters to make it easy to give short, specific, complete answers.

A letter (such as C or R) is sufficient to identify a minimum or maximum symbol in your answer.

**Do not "over-answer" – if H alone is the right answer, do not say "G and H" or "E,F,G,H" (both wrong).**



- Can new furniture be recorded as soon as it is purchased? How do you know?
- What part of the model is **redundant**?  
How would you change the model to eliminate the redundancy? Why won't users lose information if you make this change?
- Under what conditions will an apartment be deleted from the database? How do you know?
- Suggest 3 good potential identifiers (candidate keys) for the Rental Contract entity.  
(3 different alternatives, not one concatenation.)
- Can TWSA use this database to track prospective new renters or former renters who might rent from them again? How do you know?
- As the model is presented here,  
what information must always be available for any rental contract in the database? (3 things)
- The office manager has suggested adding a "used-by" relationship between Furniture and the Renter.  
What is your reply to this suggestion? Why?
- What happens if the person who is the owner of a building rents (leases for his or her own use) an apartment in that building? Explain the effect on the database.
- If 4 college students share a 2-bedroom apartment, how many rental contract instances will the roommates have to sign?
- One feature of this model will never be used because it exceeds a physical limitation of the real world. Identify the item and describe the physical limit.