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**REPORT**

Assumptions made in EER:

1. Residents and Applicants are two types of users in our housing system. They cannot be both types simultaneously (hence are represented as disjoint), and there are no other types of users (hence complete relationship). A user can also be the family head of other users (hence self-relational).
2. There are three types of admin: maintenance, residence, and admissions admin. We make the assumption that there are no other types of admin in our model (hence complete relationship). Admin can hold multiple roles though (hence overlapping). They can handle many maintenance requests, many residents, and many applications respectively.
3. An applicant can have many housing preferences or village preferences, hence they are multivalued attributes.
4. An applicant can have many applications with different preferences.
5. Resident has a multivalued attribute, rent\_till\_date, which stores every payment made till date. Total rent paid till date will be the the sum of this column.
6. Many residents can live in AT MOST one housing unit. The housing unit has an attribute type, which is either apartment or suite. The attributes, # of bedrooms and max people, indicate which type of apartment or suite it is. Another attribute called “occupied/not occupied” allows the housing system to know which units are available to lease.
7. A maintenance request can be filed by AT MOST one person.
8. A maintenance request, application, resident can be handled by EXACTLY one admin.
9. After submitting an Application and getting approved by the College, the students has to confirm their approval. In table “Applicant”, “Acceptance\_status” keeps track of whether the applicant accept an offer or not: accepted or not accepted.
10. In table “Application,” “Admission\_status” keeps track of whether the company approves an application or not: could be rejected, pending, or accepted.

Design choices in Relational schema:

1. Multivalued attributes, village\_preference, housing\_preference, and rent\_til\_date have their own tables since they are multivalued.
2. Since admin types are overlapping, maintenance admin, resident admin, and admissions admin are represented with boolean flags in the admin table.

Additional assumptions:

1. All data is stored and kept for a period of time greater than five years, so it can be accessed later for demographic purposes.