Happy Endings Nursing Home: A Relational Database Model

My model provides *Happy Endings Nursing Home* with an effective method of retrieving information related to the care and health of the residents they serve. All entities are contained within boxes and their names are highlighted in bright orange. I have also highlighted foreign keys in a lighter orange as a way of organizing the attributes in each entity.

The staff will be provided with easy access to information on their residents through the “resident” entity. This entity connects with the patient's health history through “assessment” which details every time a resident has been seen by one of the nursing home’s doctors. This entity allows staff to access information on the doctors a resident has seen, conditions they’ve been diagnosed with (including allergies and side effects) and treatments prescribed (both medications and care instructions).

Staff will also have access to information on the supply of medications held in the pharmacy and information on the shipments and suppliers of these medications. When a medication is administered this is noted under the administration entity and the administering nurse is included as well as the date and time. I have decided to connect treatment plans to the “assessment” entity rather than the “diagnoses” entity in order to allow one treatment to apply to multiple diagnoses or to give doctors the freedom to prescribe a treatment without giving an official diagnosis (such as in the case of preventative care or inoculations).

All conditions, allergies, side effects, injuries, etc. must be recorded with an official diagnosis, which is in turn associated with an assessment. Multiple diagnoses can be made at one time (and thus associated with the same assessment), however, they must be still recorded separately. Diagnoses that predate the resident's time in *Happy Endings’* care must be reassessed upon their entry. This can be as simple as one of the nursing home’s doctors confirming that the diagnosis is valid.

Doctors can also choose not to diagnose a condition if the patient is healthy. If the patient was previously diagnosed with a condition and has since recovered, they can indicate the end of an illness by creating a diagnosis and filling in the optional “resolved\_date” attribute.

Non-medical aspects of care are also considered in this model, such as which room the patient is staying in. The model allows the organization to make a record not only of a resident’s current room, but also all previous rooms they have stayed in as well as the reason for and date of their move. Family members are also kept in the loop and are connected to the resident through unique relationships (daughter, son, husband, etc.).

When a fall occurs the system makes a record of which next of kin was contacted and connects to an assessment which will indicate (through the fall assessment entity) whether there is a head injury and how severe the fall was. The fall report also makes a note of which room the fall occurred in (note common rooms such as hallways and rec rooms are also included in the rooms entity).

Finally, all individuals and organizations for whom the organization keeps contact information are given their own contact sheets. These contact sheets contain any phone numbers, fax numbers and emails associated with the individual or organization. Contact information can be shared (if they share a phone or are using a work phone for example), however, each contact sheet is unique to one individual or organization.

I feel this model is thorough while still providing enough flexibility to allow the staff to individualize care. I hope this system will benefit the residents and workers of *Happy Endings Nursing Home*.