James Hippler
Helen Stockman
CS 340-400
Project Proposal
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Hospital Database (Project Proposal)

Group Members:
Hippler, James (hipplerj@oregonstate.edu)
Stockman, Helen (stockmah@oregonstate.edu)

Overview
We will be writing a database that represents the various entities of a hospital. Hospitals require many distinct entities to operate, affording the opportunity to incorporate additional levels of complex and meaningful relationships into the database. The hospital environment is compelling because of the extent to which administrators rely on data to make informed and timely decisions regarding patient health care.

Tables and Entries
- Patients - Patients will have a First and Last Name, Date of Birth, Address (segmented into street, street number, unit number, city, state, and zip code fields), Telephone Number, Gender, Patient ID, Insurance Provider, and Diagnosis.
- Doctors - Doctors will have a First and Last Name, Departments, Specialities (Oncology, Pathology, Radiology, Pediatrics, etc), Employee ID, Telephone Number, and Assigned Patients
- Diagnosis - Diagnosis includes various injuries and diseases. It may also include a category of severity that indicate the need for additional intensive care. A diagnosis will have a related specialty best suited to treat them.
- Departments - Departments will have Doctors and Patients. Doctors will be assigned to Departments based off their specialities (i.e. a Surgeon would be assigned to Surgery, Pediatrician would be assigned to the Pediatric department.)

Table Relationships
- Patients will be assigned Departments and Doctors based on their diagnosis.
- Doctors will be assigned to Departments based on their focus and speciality. They will also be assigned a list of patients that will be under their care. Doctors can have more than one patient, an example of a one-to many database relationship.
- Doctors have specialities, sometimes more than one, that allow them to best treat a certain kind of Diagnosis.
- Many Doctors can have the same specialities and each doctor may have many different specialties. This would be an example of a many-to-many database relationship.
- Diagnosis will be assigned a severity and a specialty to provide a treatment.