**Added Business Rules**

1. A head technician can be assigned to laboratories he/she works for.
2. Deceased Patients exist, and they are given a toe tag identifier.
3. Pharmacists exist as a type of employee, and they fill prescriptions.
4. When a patient comes to meet with a physician for a visit, they may be given prescriptions.
5. Surgeons exist as a type of physician, and they perform surgeries on patients.

**Class Descriptions**

* Person – A human being who lives on planet Earth.
* Employee – A person who is hired by Dave’s GetWell Hospital.
* Nurse – An employee who helps treat patients alongside physicians.
* Registered Nurse – A nurse who has received a certificate.
* Care Center – A certain wing of the hospital where patient rooms are located and nurses are assigned to.
* Room – A small section of a care center where patients can rest in a bed.
* Bed – Furniture located in a room designed for patients to rest in.
* Staff – An employee who is neither a nurse, a technician, nor a pharmacist.
* Pharmacist: An employee who fills prescriptions.
* Technician – An employee who is assigned to laboratories based on their skills.
* Laboratory – A room in the hospital where technicians are assigned to work.
* Patient – A person who is treated by a physician at the hospital.
* Resident – A patient who is admitted to a room in a hospital for a certain amount of time.
* Outpatient – A patient who is allowed to come and go from the hospital between visits.
* Deceased: A patient who has died in the hospital.
* Visit – A unique occurrence when an outpatient comes in for a checkup with a physician.
* Physician – A person who is hired by the hospital and has a specialty which they treat.
* Surgeon: A physician who can perform surgeries for patients.
* Volunteer – A person with a set of skills who is not paid for their services, but still help at the hospital.
* Surgery – A procedure performed on patients by surgeons.
* Prescription – A paper written by a physician which allows a patient to receive a certain medicine.
* Inventory: A catalog of all the drugs in the hospital’s pharmacy.
* Head technician – A technician who is placed in charge of one or more laboratories that he/she works at.
* ZipLocation – A code that determines a city within a state.

**Associations**

* A physician treats zero or more patients. A patient is treated by one and only one physician.
* A physician attends zero or more visits with a patient. A visit is composed of a physician.
* An outpatient has zero or more visits. A visit is composed of an outpatient.
* A visit results in zero or more prescriptions. A prescription is composed of a visit.
* A prescription is supplied by one and only one drug from the inventory. The inventory supplies zero or more prescriptions.
* A surgeon performs zero or more surgeries. A surgery is composed of a surgeon.
* A patient has zero or more surgeries. A surgery is composed of a patient.
* A resident patient has one and only one bed. A bed holds either no resident patient or one resident patient.
* A pharmacist fills zero or more prescriptions. A prescription is filled by one and only one pharmacist.
* A care center contains one or more nurses. A nurse works at one and only one care center.
* A registered nurse leads zero or more care centers. A care center has one and only one registered nurses.
* A care center contains zero or more rooms. A room is composed of a care center.
* A room contains zero or more beds. A bed is composed of a room.
* A technician is assigned to one or more laboratories. A laboratory contains one or more technicians.
* A technician in a lab is the head technician of zero or more laboratories. A laboratory has one and only one head technician.
* A person lives in one and only one zipLocation. A zipLocation contains zero or many Persons.
* A volunteer has zero or more skills. A skill is obtained by zero or more volunteers.
* A technician has zero or more skills. A skill is obtained by zero or more technicians.

**Denormalization**

Currently our class diagram has the zipcode, city, and state information factored out of the Person class because it is a subkey, where the zipcode functionally determines the city and state. To denormalize our class diagram, we will merge the zipLocation class into the Person class and have the address as one big varchar.