Assumptions

1. We assume that a nurse will only work at one location on the same day so that it would be more efficient.

2. All the vials in the same batches will be transported to and used at the same location.

3. All the Canadian nurse license number are unique to each other.

4. Assume that different vaccines made by the same company has their own different names.

5. Attribute type of entity category is the only one category associated with the highest priority. We assume that workers of RAMQ will pick out the that type among all the categories of one person.

6.Workers (not tracked in the system) will create slots for the locations. So, we could make slot a weak entity with keys time, date and name of location. However, there could be not only one person to vaccinate in the same date, same time period and at the same location. For example, they can vaccinate in different 10 vaccination tents in a location on a certain day. We create a new key sid to solve these problems. "sid" don't need to be a long complex number. Back to our example, number 1 go to the first vaccination tent, number 2 go to the second one and etc.

Restrictions

1. The location where the batch is transported to and the location of the assigned slot should be the same. It is not allowed that a batch is transported to location A but is assigned to be used in another location B.

2. If a nurse is assigned to a slot at the location A, then this nurse's record will only record this nurse will work at location A. In other words, location of the assigned slot and location recorded in the nurse record should be the same.

Relational Translation

1. Person (<u>hinsurnum</u>, pname, phone, birth date, register date, address, gender, type)

type foreign key references Category

2. Category (<u>type</u>, priority)

3. Nurse (<u>licennum</u>, actual employer, nname)

4. Location (lname, city, street address, postal code, capacity, available vacci num)

5. Vaccine (vname, waiting period, doses num)

6. Batch (vname, bnum, manufacturing date, total vials num, expiry date, lname)

vname foreign key references Vaccine

lname foreign keys references Location

7. Slot (lname, time, sid, vacci date, licennum, hinsurnum)

lname foreign key references Location

licennum foreign key references Nurse

hinsurnum foreign key references Person

8. allocate (hinsurnum, time, sid, vacci date, lname, allocate date)

hinsurnum references Person

(time, sid, vacci date, lname) references Slot

9. Vail (vname, bnum, vnum, time, sid, vacci date, lname)

(vname, bnum) foreign keys references Batch

(time, sid, vacci date, lname) foreign keys references Slot

10. Nurse record (rid, assign date, lname, licennum)

lname foreign key references Location

licennum foreign key references Nurse