Strong Entity :-
- Doctor
- Nurse
- Patient
- Room
- Department
- Employee
- Blood_bank
- Operation

Weak Entity :-
- ☺ Visitor
- ☺ Patron

Relation :-

The Entity DOCTOR make a relation (work for)
with the entity DEPARTMENT (N:1)

Because :-

Doctor works for only one department and the department
works on it many Doctors.

- The entity doctor make strong relationship as there is not
  Doctor without Department and There isn't department
  without Doctor.

The Entity DOCTOR make a relation (mange)
with the entity DEPARTMENT (1:1)

Because :-

Doctor manages only one department and the department is
managed by only one Doctor.

- The entity doctor makes weak relationship because
  doctor can work without Department.
- The entity department makes a strong relationship
  because there is no Department without Doctor.

The Entity DOCTOR make a relation (treat)
with the entity PATIENT (N:M)

Because :-

Doctor can treat many patients and the patient may need many
Doctors to treat him.

- The entity doctor makes a strong relationship.
- The entity patient makes a strong relationship.

The Entity DOCTOR make a relation (assistant)
with the entity NURSE (1: N)

- The entity doctor makes a weak relationship.
- The entity nurse makes a strong relationship.

The Entity DOCTOR make a relation (operate)
with the entity OPERATION (N:1) & The Entity PATIENT
make a relation (operate) with the entity OPERATION (1:1)

- The entity doctor makes a weak relationship.
- The entity operation makes a strong relationship.
- The entity patient makes a weak relationship.

The Entity PATIENT make a relation (care)
with the entity NURSE (N:1)

- The entity patient makes a weak relationship.
- The entity nurse makes a strong relationship.

The Entity NURSE make a relation (supervise)
with herself ((supervisor) 1: N (supervisee))

- The entity nurse (supervisor) makes a weak relationship as
  not all nurses can be supervisor.
- The entity nurse (supervisee) makes a weak relationship as
  not all nurses have supervisor.

The Entity NURSE make a relation (work in)
with the entity DEPARTMENT (1:1)

- The entity nurse makes strong relationship.
- The entity department makes strong relationship.

The Entity PATIENT make a relation (stay)
with the entity ROOM (N:1)
- The entity patient makes a strong relationship.
- The entity room makes a weak relationship.

The Entity ROOM make a relation (contain)
with the entity DEVICES (1: N)
- The entity devices makes a strong relationship.
- The entity room makes a weak relationship.

The Entity ROOM make a relation (locate)
with the entity DEPARTMENT (N: 1)
- The entity department make a strong relationship.
- The entity room makes a weak relationship.

The Entity DEPARTMENT make a relation (work)
with the entity EMPLOYEE (1: N)
- The entity department make a strong relationship.
- The entity employee makes a weak relationship.

The Entity EMPLOYEE make a relation (supervise)
with himself ((supervisor) 1: N (supervisee))
- The entity employee (supervisor) makes a weak relationship.
- The entity employee (supervisee) makes a weak relationship.

The Entity BLOOD_BANK make a relation (operate)
with the entity OPERATION (1: N)

- The entity blood_bank makes a weak relationship.
- The entity operation makes a weak relationship.

The Entity PATIENT make a relation (visit)
with the entity VISITOR (1: N)

- The entity patient makes a weak relationship.
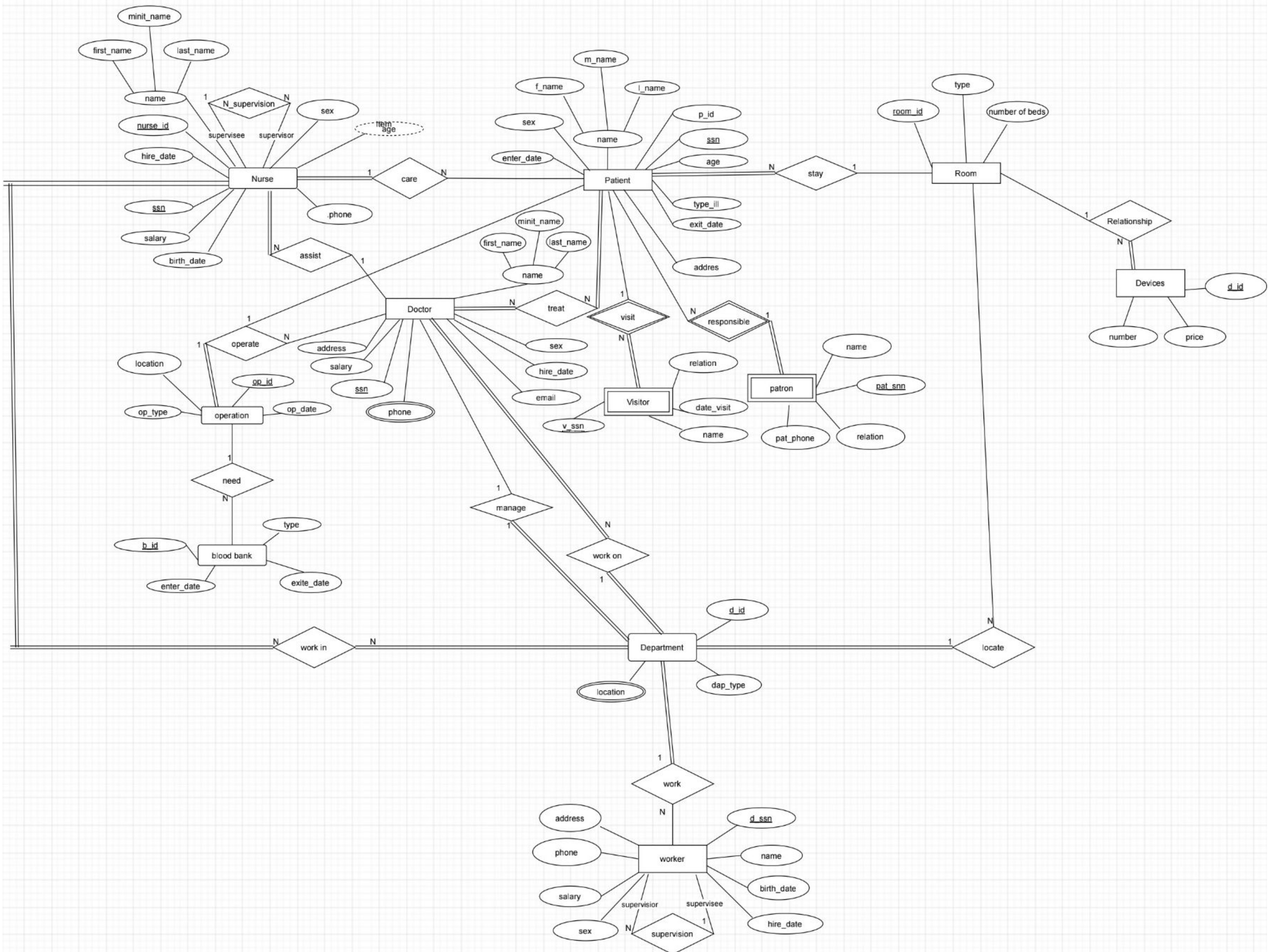- The entity visitor makes a strong relationship.

The Entity PATIENT make a relation (responsible)
with the entity PATRON (1: N)

- The entity patient makes a weak relationship.
- The entity patron makes a strong relationship.

* patron :-

Is responsible for the patient who he has the decision in the case that the patient is unable to make a decision .

Hospital ERD

Hospital Schema

DOCTOR

first_name	minit_name	last_name	sex	hire_date	salary	ssn	addres	phone	d_id	dep_id	email

NURSE

first_name	minit_name	last_name	sex	hire_date	salary	ssn	n_id	phone	dep_id	d_id	birth_date	super_nurse_id

PATIENT

first_name	minit_name	last_name	sex	ssn	enter_date	exit_date	p_id	age	addres	type_ill	phone	pat_ssn	r_id	n_id

ROOM

r_id	num_bed	typr	dep_id

DEVICES

dev_id	number	price	r_id

DEPARTMENT

type	dep_id

Employee

name	salary	sex	birth_date	hire_date	emp_ssn	addres	super_id	dep_id

OPERATION

op_id	op_date	location	op_type

BLOOD BANK

bl_id	type	enter_date	exit_date	op_id

VISITOR

name	relation	date_visit	v_ssn	p_id

patron

relation	name	pat_ssn	pat_phone	p_id

TREAT

p_id	d_id

operate

p_id	d_id	n_id	op_id

location_department

dep_id	location

PHONE_DOCTOR

phone	d_id