person is an entity with attribute (<u>ID</u>, firstName, lastName, gender, birthday). It has one-one relation with address. It also has one-many relation with phoneNum. It has three sub classes: physician, patient and nurse. phoneNum is an entity with attribute (<u>num</u>, type). It has many-one total relation with person.

address is a weal entity with attribute extra (postcode, street, city, province). It has one-one relation to person.

physician is a subclass of person. It has its own attribute (yearsPractice, medicalSpe, sal). It has many-one total relation with department. It has many-many relation with drug. It has one-many relation with diagnosis.

patient is a subclass of person. It has its own extra attribute (insureance). It has one-many relation with diagnosis. It has many-one relation with nurse. It has one-many relation with medicalTest. It has many-many relation with hospital. It has one-many relation with drug.

*nurse* is a subclass of *person*. It has its own extra attribute (yearPracitce, sal). It has one-many relation with *patient*. It has many-one total relation with *department*.

diagnosis is a weak entity of patient with attribute (<u>prognosis</u>, disease, date). It has many-one total relation with patient. It has many-one total relation with physician.

*drug* is an entity with attribute (<u>drugID</u>, name, unitCost, category, dosage). It has many-one relation with *physician*. And it has many-one relation with *patient*.

medicalTest is an entity with attribute (<u>numID</u>, testName, date, fee, result). It has many-one relation with patient.

hospital is an entity with attribute (<u>name</u>, annBud, hCity, hStreet). It has many-many relation with *patient*. It has one-many relation with *department*.

department is a weak entity of hospital with its own extra attribute (depName, annBud). It has many-one relation with hospital. It has one-many relation to physician. It has one-many relation with nurse.