



Person Entity -

Id No is the key as it uniquely identifies different people.
Person is a patient or person is a doctor. This is a form of generalization as new entity patient and health care provider is formed using the the attributes of the person entity.
Multiplicity is 1 or more as people exist.

Patients Entity -

Patient Id is the key
Multiplicity is 0 or more as there is a possibility that there are no patients

HealthCareProviders Entity -

All employees have specific unique employee Id's therefore it is a primary key
There can 0 or more heath care providers (there can be a strike or a holiday for the hospital staff)

Nurses Entity -

There is an aggregation relationship between the health care providers and nurses as nurses are parts of health care providers and Nurses record patient health findings.
Multiplicity is 0 or more

There is many-to-many relationship between the health care providers and the nurses. Therefore it has a junction table “**Employees**” which has the empld as one the attributes.

Symptoms Entity -

There is a simple association relationship between patient and symptoms (patient has symptoms)
Multiplicity is 1 or more as the person will be a patient at the hospital only if he/she has any symptoms.

There is many-to-many relationship between the patient and symptoms hence there is a junction table “**Details**” which has the patientId(pld) as one of it's attributes.

Visit Entity -

It has pld as the primary key and it monitors the date and time of the visit
There is a simple association relationship between patients and visit where a patient goes to the hospital for a visit. Multiplicity for the visit class is 1 or more as he/she will be a patient of the hospital only if they had a visit to the hospital.

HealthFindings Entity -

Simple association between the nurse and health findings entity as the nurse records the patient health details.
Multiplicity is 1 or more as any patient will have basics health details like age, weight etc.

Tests Conducted Entity -

The tests conducted is based on the symptoms. Only the symptoms will decide what test should be conducted.
Multiplicity is 0 or more as there is a possibility that the symptoms mentioned does not require any tests.

Test Results Entity -

The tests conducted will lead to test results which is a simple association relation.
Multiplicity is 1 or more as when the test is conducted there is always going to be some result whether it be positive or negative.

As tests conducted and test results is a many-to-many relationship there exists a junction table "**TestDetails**" which has the testId as one of of it's attributes.

Diagnosis Entity -

The test results will help in the diagnosis of the patient
There is a composition relationship between diagnosis and health findings as diagnosis cannot exist without the patient health details. The diagnosis is depended on the patient health details
Multiplicity is 0 or more as there is a possibility that nothing has been diagnosed and the person is fit and healthy

Prescription Entity -

There exists a composition relationship between the diagnosis entity and the the prescription entity as prescription cannot exist without diagnosis.(diagnosis will decide which medicines to be prescribed)
Multiplicity is 0 or more as there can be chance that the person is healthy and does not require any medications.

Medical History Entity -

There is a composition relationship between the medical history and diagnosis. As medical history depends on the diagnosis that has been done.
There is an aggregation relationship between Prescription and Medical history as prescription is a part of medical history.
Multiplicity is 1 or more as there will exist some medical history of the person even if they are basic health details of the person.