• A patient should have the ability to describe their gender instead of choosing from given options, therefore, I use “Text” to define the type of gender.

• The timestamp attribute used in this UML represents the date and time.

• A patient can take many visits or doesn’t take any visit. A visit must be taken by one patient, if multiple patients want to come together, every one of them needs to apply for a visit appointment.

• A healthcare provider can attend many visits or doesn’t attend any visit. A visit must be attended by at least one healthcare provider. Healthcare provider can be nurses and doctors, nurses have regular work shift schedule, while doctors don’t have.

• A patient can be seen by many healthcare providers(during one visit or multiple visits). A patient can also take zero visits, so he/she is never seen by any healthcare provider. A healthcare provider can see many patients or doesn’t see any patient.

• During each visit, the basic information(weight, height, temperature, and blood pressure) about the patient and timestamp will be recorded by a nurse. Each patient record belongs to one visit, and each visit must have one record. Each record must be recorded by one nurse, and a nurse may record zero or multiple records.

• Each patient diagnosis belongs to one visit. A patient may get zero diagnosis during one visit if the patient is healthy. However, a patient may also get multiple diagnoses from multiple doctors during one visit. Each diagnosis must be written by one doctor, and a doctor can write zero or multiple diagnoses.