

**Subject :** Designing an ER Diagram

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## Quiz 1

A database named “**Public health employee**”, should have the entity sets and relations explained below:

- Number, name, and address of **each public institution**.
- Number and type of **each public hospital** (each public hospital is regarded as a public institution)
- Number (unique in hospital) and location of each **patient exam room** of public hospital.
- Registration number, first name, last name, gender, task, and the institution information of **each public employee**. (It is assumed that no personal can simultaneously take on multiple job)
- Registration number and profession of **each doctor**. Each doctor is a public employee. Like public employee, each doctor also works at public institution; but it should be a hospital.
- The code, name and type of **each disease**.
- The code, name, type, and unit price of **each drug**.
- **Appointment information:** An appointment should keep these information: patient who asks appointment, *doctor* who responses, *date and time*, *appointment room*. It is assumed that an examination is performed at the hospital at which the doctor works; a patient can ask appointment from any doctor; a doctor can give appointment only a patient at a given moment.
- **Examination information:** *Patient* and *doctor*, *examination date and time*, *examination room*. The relation between examination and appointment is not one-to-one. In general, each appointment corresponds to examination unless patient breaks the appointment. In emergency case, no appointment is required for examination. It is assumed that a doctor can examine a patient at a given moment.
- **Disease information:** *Examination number*, *patient*, *disease name*. Making a diagnosis is done after examining the patient. A doctor can make one or more disease diagnosis.
- **Drug information:** *Examination number*, *patient*, *drug name*, *amount of drug provided*. A doctor can prescribe zero, one or more drugs.

Considering the functionalities and constraints above, you are to **construct an ER diagram**.

## Grading:

- Entity sets: 50 p.
- Relations: 50 p.