

## Hospital Management System

Design a class diagram to model the following hospital management system:

A patient is registered in a hospital. A hospital has one or more departments (i.e. departments are part of the hospital), and each department has one or more staff members (i.e. staff members make up the department.).

Different kind of staff members exist: *operations staff*, *administrative staff* and *technical staff*. *Operations staff* can be a doctor (who can makeOperations ) or a nurse (who can helpDoctor).

(Note: staff members *and* patients have some same attributes such as: name, title, gender, birthDate, phone and address.) Furthermore, a patient has the following additional attributes: accepted of type Date, and sickness of type History. And hospital staff can have the following additional attributes: joined of type Date and education of type String.

A patient takes service from the *operations staff* (i.e. visits the operations staff when sick), and operations staff provides the necessary service to the patient.

Design a class diagram to model the above.

The following points should be remembered while drawing a class diagram:

- The name of the class diagram should be meaningful to describe the aspect of the system.
- Each element and their relationships should be clearly identified.
- For each class minimum number of properties should be specified. Because unnecessary properties will make the diagram complicated.
- Make sure you clearly label **multiplicity** on associations to denote **cardinality**.
- Make sure you label the visibility of class attributes and class operations.
- Before submitting the final version of your diagram, try to rework your diagram a few times to make it correct.