

Description of the project

The aim of the project is to create an administrative system for the hospital. The system is supposed to keep records of hospital employees. Each employee has a name, surname and PESEL number as well as username and password. The system includes the following types of users: doctor, nurse, administrator.

The doctor, apart from the standard data of each user, also has a specialty (cardiologist, urologist, neurologist or laryngologist) and PWZ number. Doctors and nurses also have a list of their 24-hour on-call duty, assuming that one person may have a maximum of 10 on-call duties per month and they cannot take place day by day. In addition, only one doctor of a given specialization is allowed to have the duty on a given day (e.g. a cardiologist, urologist and neurologist may be on duty on a given day, but not two cardiologists).

After starting the system, it asks for the username and password. After logging in, in the case of doctors and nurses, it is only possible to display a list of all doctors and nurses (Name, job + possible specialization) and the duty schedule of the indicated person in a given month.

After logging in, the administrator can see all users on the list. He can also edit the data of each of them (along with the schedule) and add new users (including administrators) to the system.

At the end of the program, the entire list of employees is serialized and saved to a file, and at startup - read and deserialized.

The project must follow the object-oriented programming paradigm, and it must use inheritance, encapsulation, abstraction and polymorphism. In addition, it must be resistant to errors (both user and system errors, e.g. missing file).