

Scenario 1: Patient Treatment

To begin with, the patient is admitted to a hospital's Medicine Clinic if he/she needs to be hospitalized, a decision that is taken at the Emergency Department. The Emergency Department personnel provide the physicians of the clinic with information regarding the clinical status of the patient, such as medical history and any examinations that have been done or scheduled.

Based on this initial information, the physicians of the Medicine Clinic start the treatment of the patient. They specify a diagnosis for the patient and prescribe the medication accordingly. Such information is registered into the patient's file. During treatment, a clinical examination takes place every morning by the physicians, aiming at monitoring the patient's clinical course. To this end, laboratory and/or imaging examinations may be scheduled. The results, which are also registered into the patient's file, are evaluated by the physicians and if necessary the diagnosis and medication are revised. There may be cases that the physicians will need to consult a specialist in order to conclude about the patient's health problem or about the way the patient should be treated.

The nursing personnel aids in the treatment process through operations regarding, for example, the preparation and administration of the specified medication, blood drawing and measurements of vital signs. Medication administration and measurements are performed at the times specified by the physician. The measured values are written in the patient's chart. Moreover, the nursing personnel keeps notes of anything remarkable regarding the patient, for example, a sign they observed, as well as of any action they performed by their own initiative, for example any ad-hoc medication they may have administered to the patient.

During treatment, several unexpected situations may arise, which may lead to ad hoc clinical, laboratory or imaging examinations, as well as to reconsideration of the medication administered or even of the diagnosis specified so far. The patient may need to be transferred to the Intensive Care Unit or to undergo an urgent surgery.

The need for a patient to remain hospitalized is daily examined after the morning clinical examination based on the data gathered up to that point. If it is decided that the patient does not need further hospitalization, the treatment process ends and the patient is discharged.

Scenario 2: Product Exchange

First of all, there are two types of users, i.e., guest and registered users that differentiate themselves in the permissions that they get granted regarding the use of the platform.

More specifically, when someone visits the web platform for the first time, he gets prompted to register, by creating a user account. This account can be created either by signing up via an email and a password or via a social network account. After a successful registration, the, from now on, registered platform user, is able to submit an advertisement donating or exchanging an item, to declare interest for an existing EE product and propose an offer to acquire it, as well as to communicate with any other user who owns a desirable electric device.

Moreover, a registered user is not only able to search a product based on some conditions, namely, filters like item categories, item state, donating-user region, but also to either suggest changes regarding the item's category for which he/she is searching, or even to comment in an advertisement that he/she had expressed interest for. That way, the appropriate users will be notified for either the category change proposal or the commenting in an advertisement.

Finally, registered users have a profile in which they are able to be notified for any recycling actions taken via a news-feed as well as being informed for general topics regarding recycling and its benefits. Within each user's profile, a calendar exists via which a user can be informed for any recycling events taking place.