Use case diagram

Business

USE-CASE DIAGRAM EXERCISE 1. Draw a use case diagram for an ATM machine with the following functionality.

A customer's interaction with the system involves logging in, making withdrawal requests, deposit requests, and balance inquiry requests. If the customer logs in, there is a possibility (although rare) that the system will confiscate the card (for example, if the login is incorrect or if the bank determines that the customer's balance is significantly under zero).

Card confiscation involves triggering an alert, which will be received by the branch manager of the bank. If the customer does a balance inquiry, this of course causes the system to check the balance. Checking the balance is also done when the customer requests a withdrawal, since the system must verify that enough money is in his account.

In principle, checking the balance is a function that may be performed to support many use cases throughout the system. 2. Draw a use case diagram for a hospital admissions system.

This system serves six types of users: patients, admissions receptionists, floor nurses, medical technologists, physicians, and release receptionists. When a patient comes to the hospital, the patient and admissions receptionists use the system to perform a check-in procedure. Check-in procedures all involve the same steps, such as getting patient information, insurance, information, etc.

Some check-ins are for inpatients; for these there are additional check-in steps for assigning the patient to a room and bed.

The floor nurse uses the system to perform two tasks. First is the task of obtaining a list of all patients on the floor. Second is a task of entering patient notes. The medical technologist also performs two tasks on the system. One is to retrieve the patient record, and the second is to enter lab service notes.

The physician performs two tasks as well, one of which is to obtain her rounds schedule and the other is to enter patient notes (which is the same system process used by the floor nurse).

Finally, the patient and release receptionist go through the check-out procedure. As can be expected, there are some tasks that are shared by several processes. Specifically, check-in, check-out, entering patient notes and entering lab services all require updating the patient record in the database. Also, retrieving the patient record is a task required to support processes such as listing floor patients, receiving rounds schedules, and updating the patient record.

ANSWER SCHEME 1. 2.