Software Requirements Specification

Version 1.0
<<Annotated Version>>

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AL-Bassel Hospital System

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1.0. Introduction

1.1. Purpose

The purpose of this document is to provide a detailed description of the automation and development of the work system at Al-Bassel Hospital in Al-Zahraa district, Homs. It will explain the purpose of the system and its features, the limitations under which it must operate and how the system will interact with external stimuli. This document is intended for both hospital staff and patients.

1.2. Scope of Project

We will develop this system to fully automate its work, in order to abandon the current method of work that relies on paper archiving of patient data, departments, employees, and the minimal use of a computer. In addition, we will review their work in all its details to determine the requirements and main points in the development project for this system. The system will facilitate patients 'affairs in terms of registering, treating, and discharging the patient from the hospital instead of manual procedures.
The system will show the tasks that should be provided, so that they meet all the needs of the customer.

1.3. Glossary

Term	Definition
hospital staff	Hospital director, resident doctors, specialist doctors, nurses and administrative staff.

1.4. References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

1.5. Overview of Document

The next chapter, the Overall Description section of this document gives an overview of the functionality of the product. It describes the informal requirements which will be used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section of this document is written primarily for the developers and describes in technical terms and the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2.0. Overall Description

2.1 System Environment

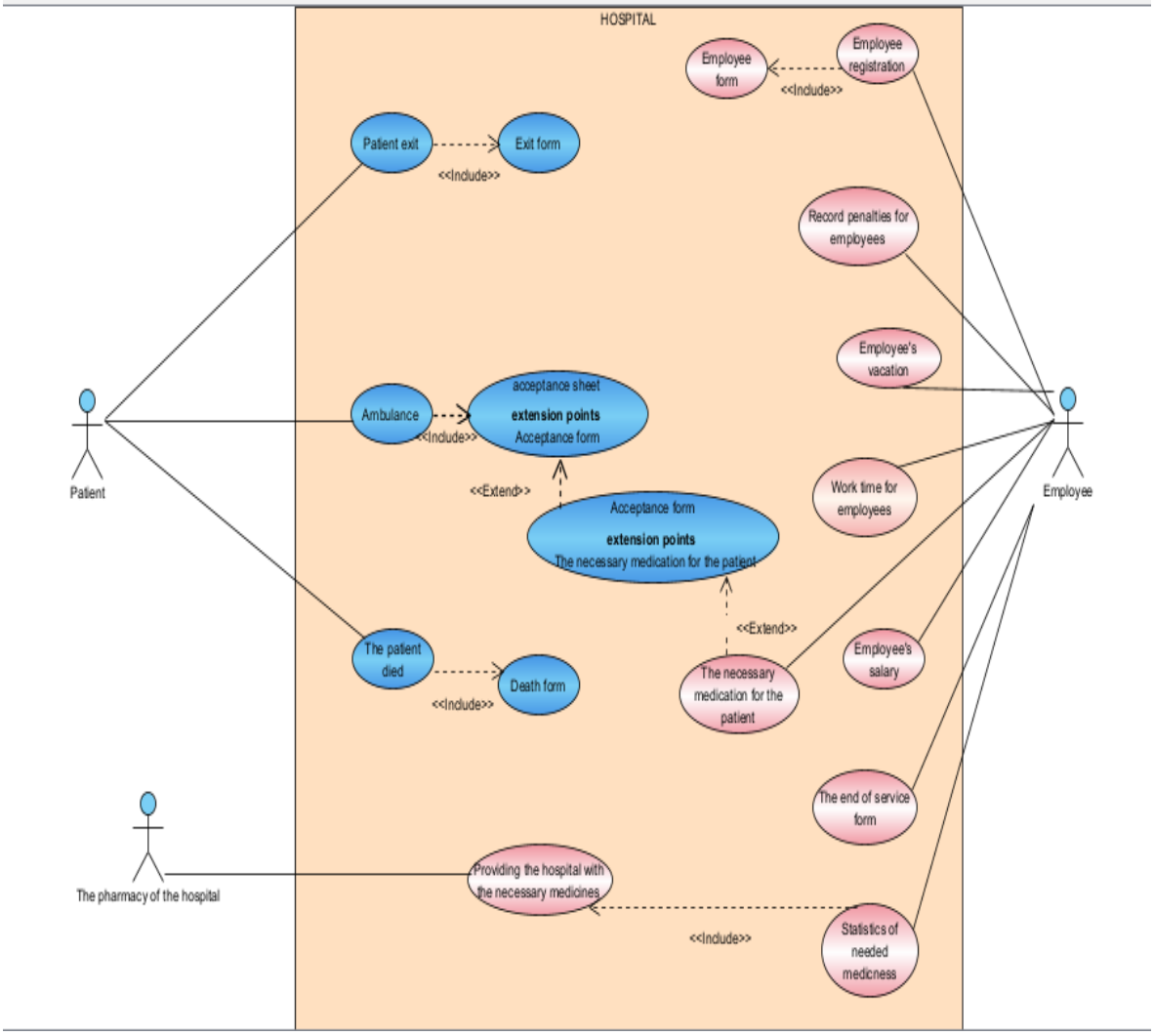

Figure 1 - System Environment

The system contains three actors: the employee, the patient, and the hospital pharmacy. When the patient arrives to the hospital, he registers the acceptance paper to be examined by the duty resident doctor in the ambulance department.

We come across several cases here:

Either it is a mild case that is discharged without the need to enter the hospital, or the patient's condition is temporary and needs to be treated by specialized doctors. The admission form is filled out to enter the hospital, and after performing the required treatment and giving the necessary medicines to the patient, the exit form is filled out.

When the patient dies, the death form will be filled out by his family.

As for employee, he registers in the hospital through the registration form.

The system calculates the employee's vacations, penalties, working time, salaries, and the date of termination of their service in the hospital. As for the pharmacy, it supplies the hospital with the necessary medicines through a request by the hospital's administrative employee.

2.2 Functional Requirements Specification

This section describes the use cases separately.

2.2.1 patient acceptance sheet usecase :

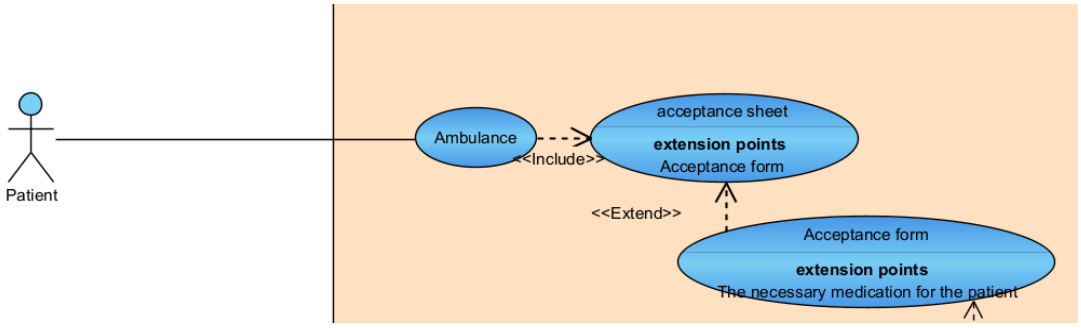

Figure 2 - patient usecase 1

The patient enters the ambulance department and fills out the acceptance paper. In case the patient needs temporary treatment, he enters the hospital, and then he fills out the admission form of the hospital.

2.2.2 patient exit usecase :

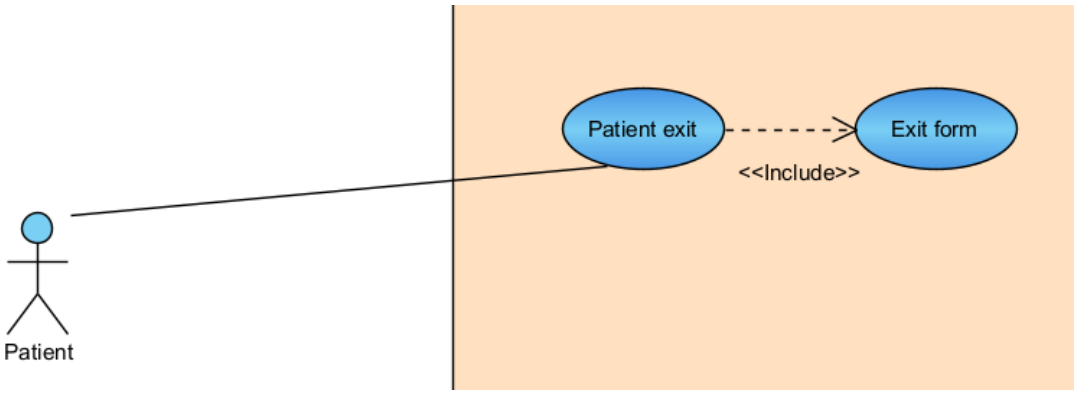

Figure 3 - patient usecase 2

When the patient is discharged, he must fill out the exit form.

2.2.3 patient death usecase :

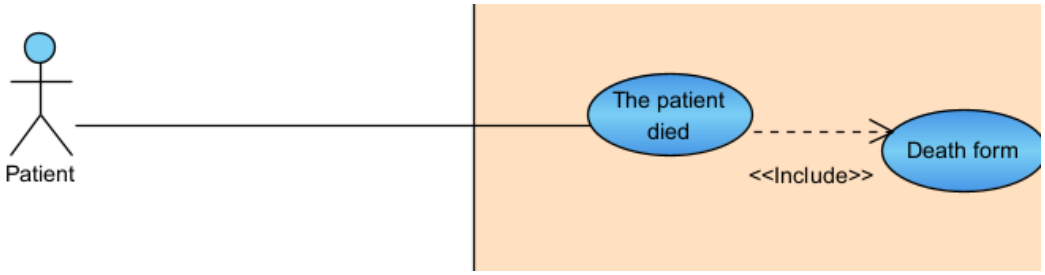

Figure 4 - patient usecase 3

When the patient dies, the patient's family must fill out a death form for him.

2.2.4 employee registration usecase :

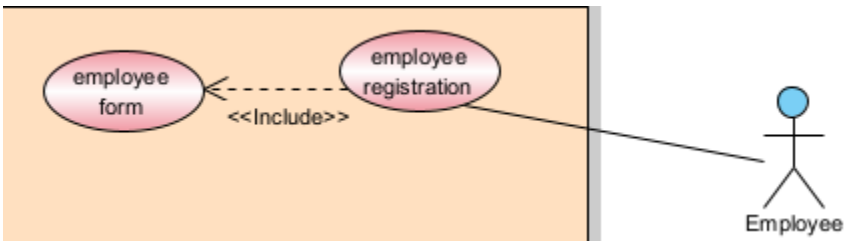

Figure 5 - employee usecase 1

The employee must register within the hospital through the registration form.

2.2.5 employee vacation usecase :

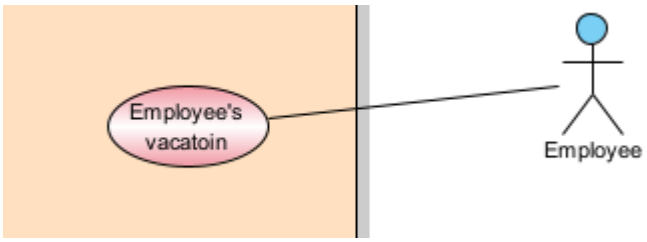

Figure 6 - employee usecase 2

Record the number of vacation days taken by the employee form.

2.2.6 employee penalties usecase :

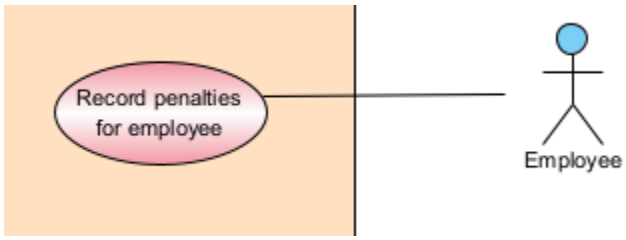

Figure 7 - employee usecase 3

Recording the data of the penalties that the employee got.

2.2.7 employee work time usecase :

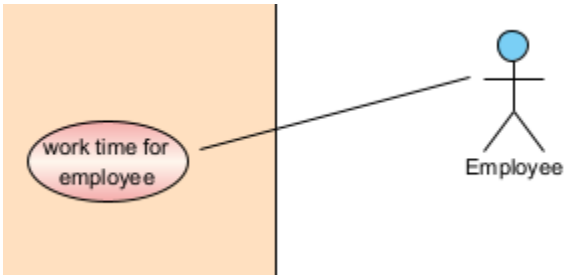

Figure 8 - employee usecase 4

Recording the working days of the employee.

2.2.8 Employee’s salary usecase :

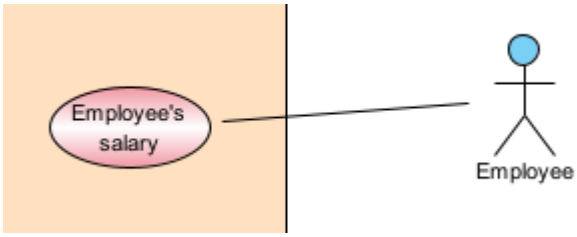

Figure 9 - Employee usecase 5

Register the salary of the employee.

2.2.9 Employee’s end service usecase :

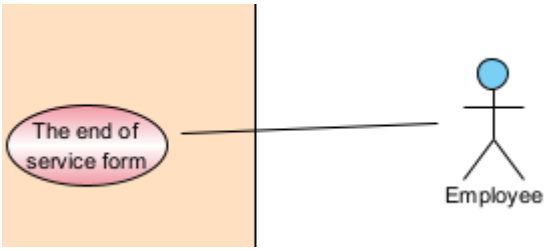

Figure 10 - Employee usecase 6

Recording the employee's end of service data.

2.2.10 Giving the patient the necessary medications usecase :

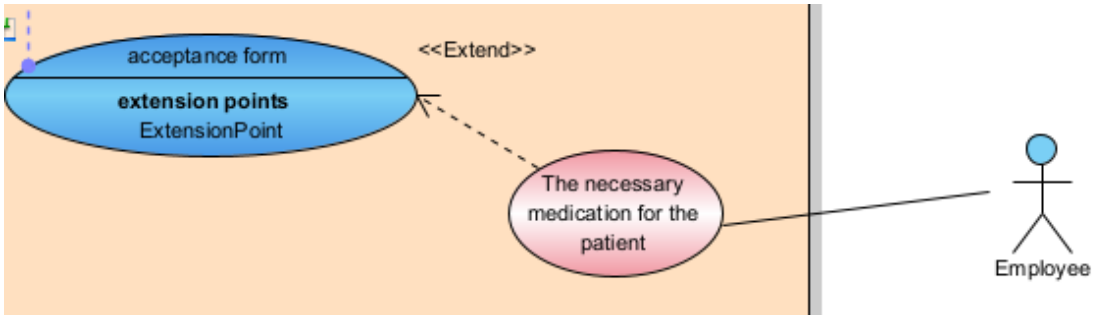

Figure 11- Employee usecase 7

Giving the patient the necessary medications:

For each section there is a book called Medicines Book in which the name, time and name of the given drug are recorded, the nurse who gave the medicine and signed it. This medicine will be placed by the supervising physician.

2.2.11 Pharmacy of the hospital usecase :

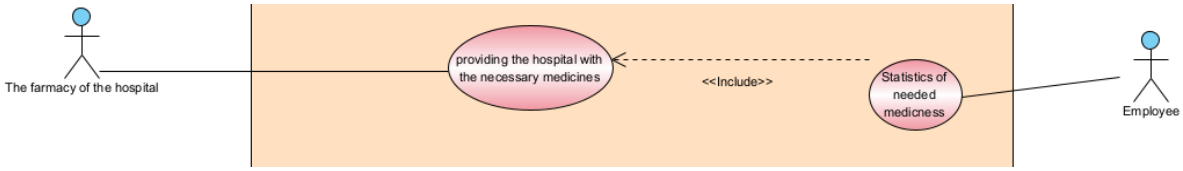

Figure 12- Pharmacy usecase 1

Providing the hospital with the necessary medicines for patients
It provides the hospital with the necessary medicine by writing a list of the necessary medicines for the patient daily, and sending all the lists to the hospital pharmacy. Then the pharmacy will send all the required medicines to the hospitals. knowing that the Ministry of Health is responsible for financing these hospitals and buy the necessary medicines for them.

2.3 user Characteristics

The diagnosis of the patient's pathology is made by the resident doctor in the ambulance department.

We came across several cases here: either the patient's condition is temporary according to the resident doctor's decision, therefore the appropriate medication is prescribed to him and he is discharged under his responsibility. The patient's condition may require a specific medical advice, and he will be sent to the required clinic. The doctor responsible for his work decides whether the patient has to stay in the hospital or be discharged. The

process ends either at the resident doctor when the patient's condition is temporary or either at the doctor responsible for the case, if he is referred to him.

2.4 Non-functional Requirements

- Processing speed
- Ease of use
- Work efficiency

3.0 requirements specification

3.1 External Interface Requirements

Acquire a computer and a Java emulator program (NetBeans) and a programmer specializing in this language.

3.2 Functional Requirements

1. Patient registration of the acceptance sheet.
2. Patient registration for admission form.
3. Recording the patient's discharge from the hospital:
4. Procedures followed upon death of the patient:
5. Giving the patient the necessary medicines.
6. Supplying the hospital with the necessary medicines for patients.
7. Employee registration.
8. Leave data recording.
9. Employee’s work time.
10. Employee’s salary.
11. Recording employee’s end of service data.

3.3 Detailed Non-functional Requirements

- Processing speed: data are handled quickly and easily.
- Ease of use: to enable all hospital staff to use the system easily and smoothly.
- Work efficiency.

3.3.1 The logical Structure of the Data

The logical structure of the data to be stored in database is given below.