Software Requirements Specification

Version 2.5

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Development of pharmacy management

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This work is based upon the submissions of the spring 2021 CS 310. The students who submitted these team projects were Evlien Jerdy, Esraa Alrifai, Alaa Hasan

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**1.0. Introduction**

***1.1. Purpose***

The purpose of this document is to present a detailed description of the Development of pharmacy management. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system .

***1.2. Scope of Project***

In this document, we provide a description of the management program a pharmacy located in Al-Mahatta neighborhood. We were asked to develop a program to assist in running the pharmacy business in order to increase the speed and organization in the workflow.

So, the responsible pharmacist was contacted to learn about the method of work in the pharmacy and to determine the main points on which the program will be built. There is a pharmacist responsible for receiving and checking prescriptions and meeting medicines, a pharmacist responsible for prescriptions covered by insurance companies, in addition to an accountant for managing financial matters.

Where cooperation takes place between all workers to provide the required service.

***1.3. Glossary***

|  |  |
| --- | --- |
| ***Database*** | Collection of all the information monitored by this system. |
| ***accountant*** | The term accountant refers to a professional who performs accounting functions such as account analysis, auditing, or financial statement analysis. |
| ***insurance companies*** | a company whose business is providing and selling insurance |
| ***Stakeholder*** | Any person with an interest in the project who is not a developer |
| ***pharmacist*** | a health-care professional licensed to engage in pharmacy with duties including dispensing prescription drugs, monitoring drug interactions, administering vaccines, and counseling patients |

***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 and is used to establish a context for the technical requirements specification in the next chapter.

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

Figure 1 - System Environment

**2.0. Overall Description**

|  |  |  |
| --- | --- | --- |
| |  | | --- | | Pharmacist |  |  | | --- | | system |   Development of pharmacy  Management |

***2.1 System Environment***

The system has 3 types of users who interact with the system

Any customer communication with the system is through android app, The customer has access to records of available drugs and their prices

The pharmacist can access the purchase record and order the medicine and determine whether the sale is by prescription or without a prescription, and the prescription is checked (presence of the doctor's seal and signature - the seal of Syrian doctors)

The accountant can access the records of sales and medicines and reduce the items sold from the inventory, in addition to the profits resulting from the sale process

Application manager accesses the entire system directly

The program provides the possibility to cover all work performed by pharmacy workers

and The scope of the system's services does not exceed the pharmacy, as the companies that are dealt with do not comply with the required program.

|  |
| --- |
| Data |

|  |
| --- |
| client |



***2.2 Functional Requirements specification :***

This section describes the use cases for each of the Active People separately.

The customer, accountant, and pharmacist have only one use case

Each one while the application manager is the main actor in the system.

2.2.1 customer Use Case

Use case: Searching for medicine



***customer***

**Brief Description**The customer arrives at the website and registers an order, or amends his request.

**Initial Step-By-Step Description**:

Before this use case can be initiated, the customer has already accessed the

medical record website.

1- The customer logs in with his name and e-mail.

2- The system displays a list of available medicines and their prices, and offers two options, either searching for the drug by prescription or without a prescription

3- The customer chooses the medications he needs.

4- Inform the manager of the customer’s request, and in the event that the customer’s request is approved, an email will be sent to him to inform him of the success of the process.

2.2.2 pharmacist Use Case

Use Case: patient management



***Pharmacist***

**Brief Description**

Adding the customer, receiving and checking the prescription.

**Initial Step-By-Step Description**:

Before embarking on this use case, a pharmacist has already made access to

Medical record website

1.The pharmacist logs into the website and all the information About medication is shown to him.

2. The system allows him to receives and checks prescriptions and secures medicines.

3. The system shows the results by presenting two options, either the medicine being searched for is available or not available.

4. The system allows the pharmacist to adjust the required medication and use an alternative medication.

2.2.3 accountant Use Case

Use case: financial management



***Accountant***

**Brief Description**

Study, evaluation and examination of financial data and information

**Initial Step-By-Step Description**:

Before embarking on this use case, accountant has already made access to

Medical record website

1. 1.The pharmacist logs into the website and all the information About medication is shown to him.
2. Follow-up of the operations of receiving medicines from companies and registering them on the system.
3. Recording of drug dispensing operations to customers
4. Follow up on the validity date of medicines from the system and return them to suppliers
5. Carry out periodic inventories
6. Calculating profit at the end of the month by comparing sales with purchases

***2.3 User Characteristics***

***The pharmacist is expected to be aware of the use of the computer and know a way to communicate with companies, and the same for companies***

***2.4 Non-Functional Requirements***

1. Execution is done with the best possible speed

2. Keeping a monthly backup copy of the sales field and the purchases field as electronic copies

***2.5 Functional Requirements***

1. Classification of drugs according to cards :

* Classification of drugs is according to the company first, then according to the amount of sales.
* Adding a card for a new drug or modifying a previous drug card.

2. Item sale

* To search for the item by name and verify its existence, and if it exists, it is added to the customer's invoice
* Add the invoice to the Sales field and decrease the quantity of the sold item from the Stock field.
* Calculate the bill value. And if the bill belongs to one of the insurance companies that have been contracted with by the pharmacy
* Determine which drugs have been approved by the company through the company's response
* Calculate the price to be paid by the customer and the amount covered by the company and reduce 9% of the invoice value in favor of the insurance company concerned with the prescription

**3.0. Requirements Specification**

***3.1 External Interface Requirements***

The Windows interface that the pharmacist and accountant will deal with in addition to a program interface that the customer deals with in order to request drugs. In turn, he will respond to the request and send a confirmation or rejection letter, and then the accountant sends an invoice to the customer

***3.2.Functional Requirements***

The Logical Structure of the Data is contained in Section

3.2.1 Searching for medicine

|  |  |
| --- | --- |
| **Use Case Name** | Searching for medicine |
| **Xref** | 2.2.1 |
| **Trigger** | The patient accesses the  medical record app |
| **Precondition** | The web displayed with grid of  search. |
| **Basic Path** | 1. The system displays all  Pharmacies in Homs  2. The customer is given  Choose to search by  Name and name of available drugs  3. The system shows a file  Results. |
| **Alternative Path** | Currently there is no other way. |
| **Exception Path** | Canceling the addition process before completion (we forgot to register his mobile number). |
| **Other** | - All cases discussed |

3.2.2 patient management

|  |  |
| --- | --- |
| **Use Case Name** | patient management |
| **Xref** | 3.2.3 |
| **Trigger** | The pharmacist accesses the  medical record website |
| **Precondition** | The web displayed with grid of  search. |
| **Basic Path** | 1. The pharmacist logs in to  Location and searches  To the customer by  the ID number, And all the information  About the pharmacy  Shows to him.  2. The system allows him to do so  To adjust  Medicines available and medicines not available  3. The system shows a file  Results. |
| **Alternative Path** | NON |
| **Exception Path** | Canceling the process before completion |

3.2.3 financial management

|  |  |
| --- | --- |
| **Use Case Name** | financial management |
| **Xref** | 3.2.3 |
| **Trigger** | The accountant accesses the  medical record website |
| **Precondition** | The web displayed with grid of  search. |
| **Basic Path** | 1- Log in with the administrator account  2- Entering the financial accounts register  3- Preparing the necessary financial reports, lists and tables |
| **Alternative Path** | NON |
| **Exception Path** | Canceling the process before completion |

**3.3.2 Security**

The system is on a server that has its own protection, right there

The powers of the pharmacist and he

Nothing related to other pharmacies cannot be modified or deleted

All accounts in the system are password-encrypted, in

In addition to the protection that Windows Defender provides