

# Pharmacy Management system

Software Requirement Specification

Group 2

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# Pharmacy Management System

application

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## ABSTRACT

The study is made for Pharmacy Management System. The scope of the study is to analyse the existing pharmacy management system and to know its functions and drawbacks, and design the SRS of this system. The object of this study is to develop an SRS (software requirements and specification) of Pharmacy Management System.

# TABLE OF CONTENTS

<b>Chapter 1: Introduction.....</b>	<b>5</b>
1.1 Purpose.....	5
1.2 Intended Audience .....	5
1.3 Conclusion .....	6
1.3 Conclusion .....	6
<b>Chapter 2: Inception of PMS.....</b>	<b>7</b>
2.1 Introduction .....	7
2.1.1 Listing down the Stakeholder .....	7
2.1.2 Recognizing Multiple Viewpoints .....	8
2.1.3 Working towards collaboration .....	9
2.1.4 Communication Initiation .....	10
2.2 Conclusion .....	11

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# CHAPTER 1: INTRODUCTION

This chapter is a part of our software requirement specification for the project “Pharmacy Management System”. In this chapter we focus on the intended audience for this project.

## 1.1 PURPOSE

This document briefly describes the Software Requirement Analysis of Pharmacy Management System. It contains functional, non-functional and supporting requirements and establishes a requirements baseline for the developing the system. The SRS holds the requirements are independent, uniquely numbered and organized by topic. The SRS serves as a platform to forward user requirements to the developer and provides a common reference point for both the developer team and the stakeholder community. The SRS will evolve over time as users and developers work together to validate, clarify and expand its contents.

## 1.2 INTENDED AUDIENCE

This SRS is intended for several audiences including the customers as well as the project managers, designers, developers, and testers.

- The customer will use this SRS to verify that the developer team has created a product that the customer finds acceptable.
- The project managers of the developer team will use this SRS to plan milestones and a delivery date, and ensure that the developing team is on the right track when developing the system.
- The designers will use this SRS as a basis for creating the system’s design. The designers will continually refer back to this SRS to ensure that the system they are designing will fulfill the customer’s demands.
- The developers will use this SRS as a basis for developing the system’s functionality. The developers will link the requirements defined in this SRS to the software they create to ensure that they have created a software that will fulfill all of the customer’s documented requirements.
- The testers will use this SRS to derive test plans and test cases for each documented requirement. When portions of the software are complete, the testers will run their tests on that software to ensure that the software fulfills the requirements documented in this SRS. The testers will again run their tests on the entire system when it is complete and ensure that all requirements documented in this SRS have been fulfilled.

## 1.3 CONCLUSION

This analysis of the audience helped us to focus on the users who will be using our analysis. This document will help each and every person related to this project to perceive the subject matter of the project.

## CHAPTER 2: INCEPTION OF PMS

In this chapter, the Inception part of the SRS will be discussed briefly.

### 2.1 INTRODUCTION

The renowned genius Albert Einstein has said, “If I had an hour to solve a problem I’d spend 55 minutes thinking about the problem and 5 minutes thinking about the solution.” This means, it is more necessary to dig deep into the problem rather than jumping to a solution. Developing efficient software falls under the same jurisdiction.

Inception is the first phase of requirements engineering. It defines the scope and nature of the problem. The principle target of this stage is to create a basic understanding of the problem, identify the people involved and comprehend the nature of the solution via communication.

For a clear perception of the software requirements, a groundwork is established involving the following steps:

- Listing down the stakeholders
- Recognizing multiple viewpoints
- Working towards collaboration
- Breaking the ice and initiating communication

#### 2.1.1 LISTING DOWN THE STAKEHOLDER

According to Sommerville and Sawyer [Som97], “Anyone who benefits in a direct or indirect way from the system which is being developed is a stakeholder.” This implies that stakeholders include end users of the developed software as well as people whose activities might be influenced by the tool. Towards the end of inception, the list of stakeholders is usually larger as every stakeholder is allowed to suggest one or more individuals who might be probable stakeholders for the given problem.

To identify stakeholders we consulted a number of pharmacies in Dhaka, Bangladesh and asked them the following questions:

- Who will be using the product?
- Whose work will this project affect?



We identified the following stakeholders for our project.

- Pharmacy owner
- Employee
- Shareholder
- Supplier
- Developer

## 2.1.2 RECOGNIZING MULTIPLE VIEWPOINTS

The list of stakeholders will contribute to the input when requirements are elicited. Every stakeholder has different views of the system and achieves different benefits when the system is developed.

### PHARMACY OWNER'S AND SHAREHOLDER'S VIEWPOINTS

- User friendly
- Computer based system
- Minimum maintenance expenditure
- Multiple login system: admin and standard
- Strong authentication
- Error free system
- Salespersons database
- Salespersons working hours recorder
- Notification per sale (to admin only)
- Report of daily transaction history (admin only)
- Cash-memo system
- Expiry date tracker and notification (before 4 months of expiry date)
- Low stock alert
- Recommendation list for medicines having same component
- Search option
- Supplier's database
- Sorting drugs (and other products) with respect to companies and components
- Future support from developers

### SALESPERSON'S VIEWPOINTS

- User friendly
- Smartphone based system
- Easy access
- Offline guidance
- Expiry date tracker and notification

- Cash memo system
- Recommendation list for medicines having same component
- Search option for drugs
- Sorting drugs (and other products) with respect to companies and components
- Internet browsing option

## DEVELOPER'S VIEWPOINTS

- Easy to develop
- No ambiguous requirement
- Keeping it simple and user friendly
- Light weight

## SUPPLIER'S VIEWPOINTS

- Get notification via SMS or email
- Low complicated system

### 2.1.3 WORKING TOWARDS COLLABORATION

Each of the stakeholder constituencies (and non-stakeholder constituency) contributes to the requirement engineering process. The greater the numbers of interactions with multiple stakeholders, the higher is the probability of inconsistency, conflicts and clashes of viewpoints. In such circumstances, requirement engineers finalize the requirements following some steps, which are listed below.

- Finding out the commonality and the conflicting points of stakeholders
- Categorizing stakeholders
- Listing down the requirements based on the stakeholder's priority points

## COMMON POINTS

- User friendly
- Expiry date tracker and notification
- Low stock alert
- Cash memo system
- Recommendation list for medicines having same component
- Search option for drugs
- Sorting drugs (and other products) with respect to companies and components

- Supplier's database

## CONFLICTING POINTS

- Device
- High security
- Budget
- Easy access

## FINAL REQUIREMENTS

- User friendly system
- Strong authentication
- Offline guidance
- Expiry date tracker and notification
- Cash memo system
- Recommendation list for medicines having same component
- Search option for drug
- Sorting drugs (and other products) with respect to companies and components
- Multiple login system: admin and standard
- Salesperson working hours recorder
- Notification per sale (to admin only)
- Report of daily transaction history (to admin only)
- Low stock alert
- Restrict access to functionality of the system based upon user roles

## 2.1.4 COMMUNICATION INITIATION

In requirements engineering, the involved individuals can be broadly divided into two clusters: the developers and the stakeholders. Coming from different backgrounds, it will be obvious that these two parties will have different points of views regarding the problem. The stakeholders have more knowledge on facing the problem. Meanwhile, the developers are experienced with providing computerized solutions. Thus, in order to obtain an efficient solution to the problem, it is important to 'loosen up' or 'break the ice' between the two groups.

Following the ideal guidelines of requirement engineering, some context free questions were asked. The context free questions help throwing light on the stakeholders of the project. The next set of questions includes the context itself so that a better understanding of the problem is obtained. The stakeholder is encouraged to voice out his/her opinions about an alternate solution and also provide recommendations to the developer's suggestions. The final set of questions focuses on the communication activity itself.

## 2.2 CONCLUSION

The intense hours of developing a software is fruitful only if the users are benefitted and satisfied. Jumping into coding, right after signing up for a project throws both the clients and the developers into the risks of failure. A successful project demands a better perception of the problem. The best and easiest way to sketch out the hints of a solution is to interact with those encountering the problem itself. This is where inception phase comes.

Inception phase has given us the opportunity to create a basic understanding of the problem and perceive an abstract idea of the nature of the solution. Direct interaction with the stakeholders made us come across core points of a solution and realize the effectiveness of communication between two parties. We believe that our groundwork will help us implement an efficient solution to the problem.

### 3.1 Introduction

The second phase of requirements engineering is elicitation. The main task of elicitation is to combine elements of problem solving, elaboration, negotiation and specification. Gathering information from stakeholders regarding the problem was not sufficient to design the software. The problems that arose, were encountered following the principles of elicitation.