

# *Software Requirements Specification (SRS)*

*for*

## *Hospital Management System*

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# 1. Introduction

## 1.1 Purpose

The purpose of this document is to describe the requirements for the Hospital Patient Info Management System (HPIMS). The intended audience includes all stakeholders in the potential system. These include, but are not necessarily limited to, the following: Administrative Staff, patients and developers.

Developers should consult this document and its revisions as the only source of requirements for the project. They should not consider any requirements statements, written or verbal as valid until they appear in this document or its revision.

## 1.2 Scope

The proposed software product is the Hospital Patient Info Management System (HPIMS). The system will be used to get the information from the patients and then storing that data for future usage. The current system in use is a paper-based system. It is too slow and cannot provide updated lists of patients within a reasonable time-frame. The intentions of the system are to reduce over-time pay and increase the number of patients that can be treated accurately. Requirements statements in this document are both functional and non-functional.

## 1.3 - Definitions, Acronyms, and Abbreviations

**HPIMS** - Hospital Patient Info Management System

**PHN** - Personal Health Number on health card

**Report** - an account of patients

**Front-desk staff** - administrative staff that work at reception desk

**Logon ID** - a user identification number to enter the system

**Password** - a word that enables one to gain admission into the system

**Web-based application** - an application that runs on the Internet  
**MySQL** - a query language to interrogate the system  
**GUI** - Graphical User Interface

**SRS** - Software Requirements Specification

## 1.4 References

No formal documents have been referenced in this document

## 1.5 Overview

This Software Requirements Specification (SRS) is the requirements work product that formally specifies Hospital Patient Info Management System (HPIMS). It includes the results of both business analysis and systems analysis efforts. Various techniques were used to elicit the requirements and we have identified your needs, analyzed and refined them. The objective of this document therefore is to formally describe the system's high level requirements including functional requirements, non-functional requirements and business rules and constraints. The detail structure of this document is organized as follows:

Section 2 of this document provides an overview of the business domain that the proposed Hospital Patient Info Management System (HPIMS) will support. These include a general description of the product, user characteristics, general constraints, and any assumptions for this system. This model demonstrates the development team's understanding of the business domain and serves to maximize the team's ability to build a system that truly does support the business. Section 3 presents the detail requirements, which comprise the domain model.

# 2. General Description

## 2.1 Product Perspective

This Hospital Patient Info Management System is a self-contained system that manages activities of the hospital as Patient Info. Various stakeholders are involved in the hospital patient info system.

## 2.2 Product Functions

The system functions can be described as follows:

**Registration:** When a patient is admitted, the front-desk staff checks to see if the patient is already registered with the hospital. If he is, his/her Personal Health Number (PHN) is entered into the computer. Otherwise a new Personal Health Number is given to this patient. The patient's information such as date of birth, address and telephone number is also entered into computer system.

**Patient check out.** If a patient checks out, the administrative staff shall delete his PHN from the system and the just evacuated bed is included in available-beds list.

## **Report Generation:**

The system generates reports on the following information: List of detailed information regarding the patient who has admitted in the hospital

## **2.3 User Characteristics**

The system will be used in the hospital. The administrators, front-desk staff will be the main users. Given the condition that not all the users are computer-literate. Some users may have to be trained on using the system. The system is also designed to be user-friendly. It uses a Graphical User Interface (GUI).

### **Front-desk staff:**

They all have general reception and secretarial duties. Every staff has some basic computer training. They are responsible for patient's check-in or notification of appropriate people .

### **Administrators:**

They all have post-secondary education relating to general business administration practices. Every administrator has basic computer training. They are responsible for all of the scheduling and updating day/night employee shifts.

## **. 2.4 General Constraints**

- The system must be delivered by January 1st 2011.
- The existing Telecommunication infrastructure is based on IEEE100802.3 standards and the system must conform to this standard using category 5 cables for networking
- The system must be user-friendly

## **2.5 Assumptions and Dependencies**

- It is assumed that one hundred IBM compatible computers will be available before the system is installed and tested.
- It is assumed that the Hospital will have enough trained staff to take care of the system

## **3. Specific Requirements**

### **3.1 Functional Requirements**

#### **Registration**

##### **SRS001      Add patients**

The HPIMS shall allow front-desk staff to add new patients to the system.

##### **SRS002      Assign ID**

The HPIMS shall allow front-desk staff to give each patient a ID and add it to the patient's record. This ID shall be used by the patient throughout his/her stay in hospital.

#### **Check Out**

##### **SRS003      Delete Patient ID**

The administrative staff in the ward shall be allowed to delete the ID of the patient from the system when the patient checks out.

##### **SRS004      Add to beds-available list**

The administrative staff in the ward shall be allowed to put the beds just evacuated in beds-available list.

#### **Report Generation**

##### **SRS005      Patient information**

The HPIMS shall generate reports on patients about the following information: patient's PHN, patient's name, ward name, bed number and the doctor's name which was assigned.

##### **SRS006      Bed Availability**

The HPIMS shall generate reports on bed availability about the following information: ward name, bed number, occupied/unoccupied.

#### **Database**

**SRS007 Patient Mandatory Information**

Each patient shall have the following mandatory information: first name, last name, phone number, personal health number, address, postal code, city, country, patient identification number.

**SRS008 Update Patient Information**

The HPIMS shall allow the user to update any of the patient's information as described in SRS007.

## **3.2 Design Constraints**

**SRS009 Database**

The system shall use the MySQL Database, which is open source and free.

**SRS010 Operating System**

The Development environment shall be Windows 2000.

**SRS011 Web-Based**

The system shall be a Web-based application.

## **3.3 Non-Functional Requirements**

### **3.3.1 Security**

**SRS012 Patient Identification**

The system requires the patient to identify himself /herself using PHN

**SRS013 Logon ID**

Any user who uses the system shall have a Logon ID and Password.

**SRS014 Modification**

Any modification (insert, delete, update) for the Database shall be synchronized and done only by the administrator in the ward.

**SRS015 Front Desk staff Rights**

Front Desk staff shall be able to view all information in HPIMS, add new patients to HPIMS but shall not be able to modify any information in it.

**SRS016 Administrators' Rights** Administrators shall be able to view and modify all information in HPIMS.

### **3.3.2 Performance Requirements**

**SRS017 Response Time**

The system shall give responses in 1 second after checking the patient's information.



- SRS018      Capacity**  
The System must support 1000 people at a time.
- SRS019      User-interface**

The user-interface screen shall respond within 5 seconds.

- SRS020      Conformity**  
The systems must conform to the Microsoft Accessibility guidelines

### **3.3.3 Maintainability**

- SRS021      Back Up**  
The system shall provide the capability to back-up the Data
- SRS022      Errors**  
The system shall keep a log of all the errors.

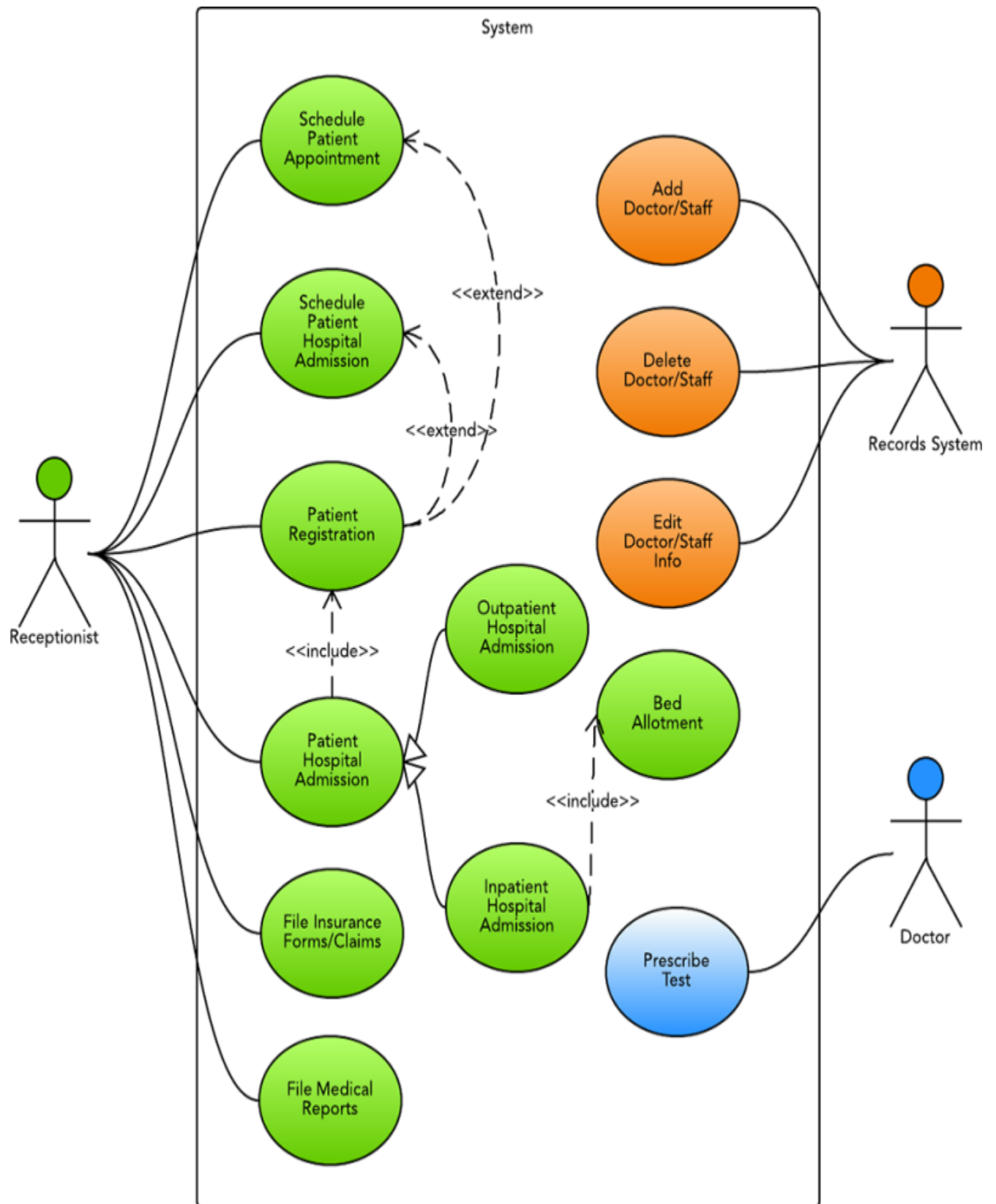
### **3.3.4 Reliability**

- SRS023      Availability**  
The system shall be available all the time

## **4.APPENDIX:**

This SRS document is used to give details regarding Hospital Patient Info Management System. In this all the functional and non-functional requirements are specified inorder to get a clear cut idea to develop a project.

### **4.1 Use-Case Diagram:**



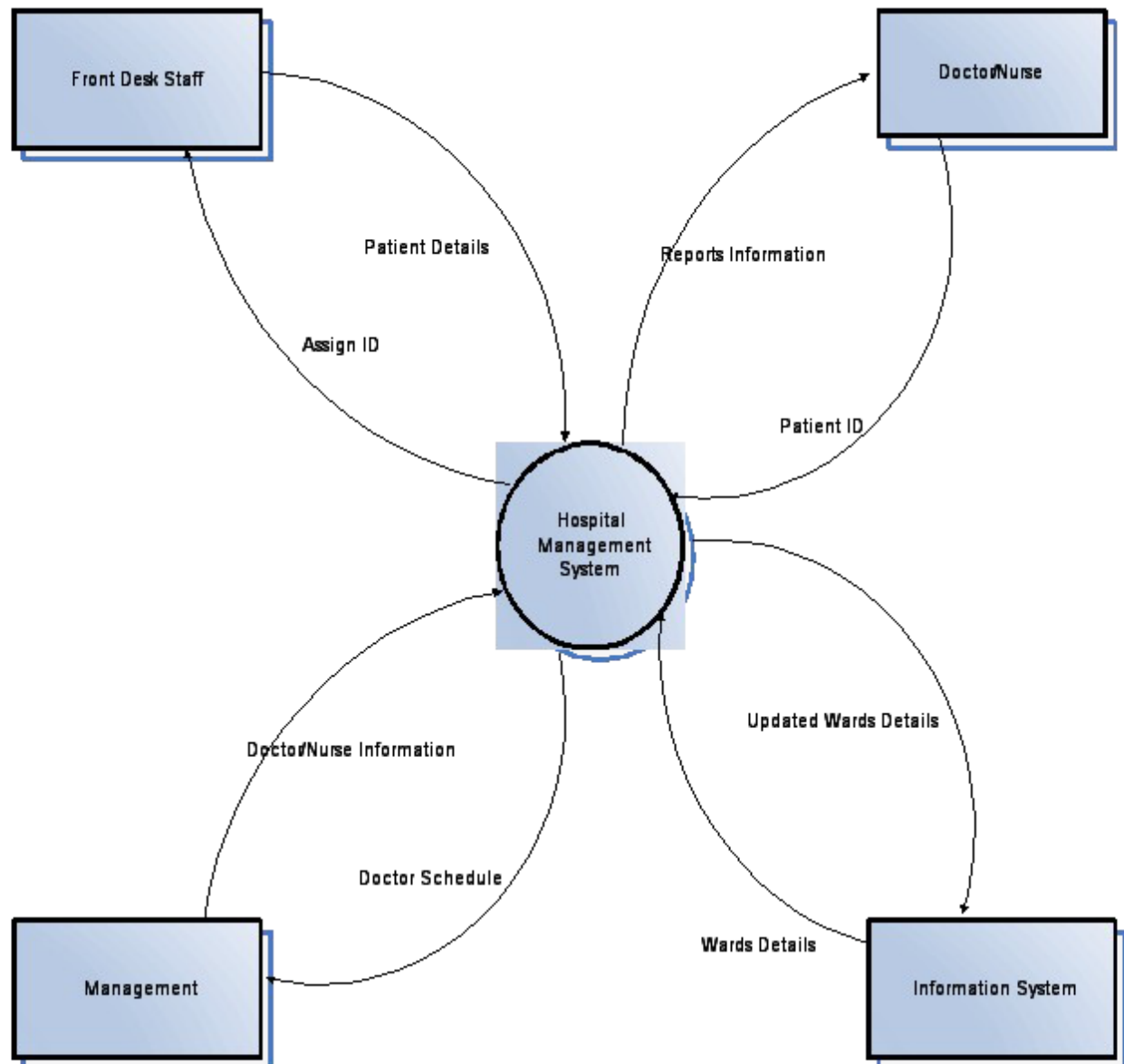
## USE CASE:

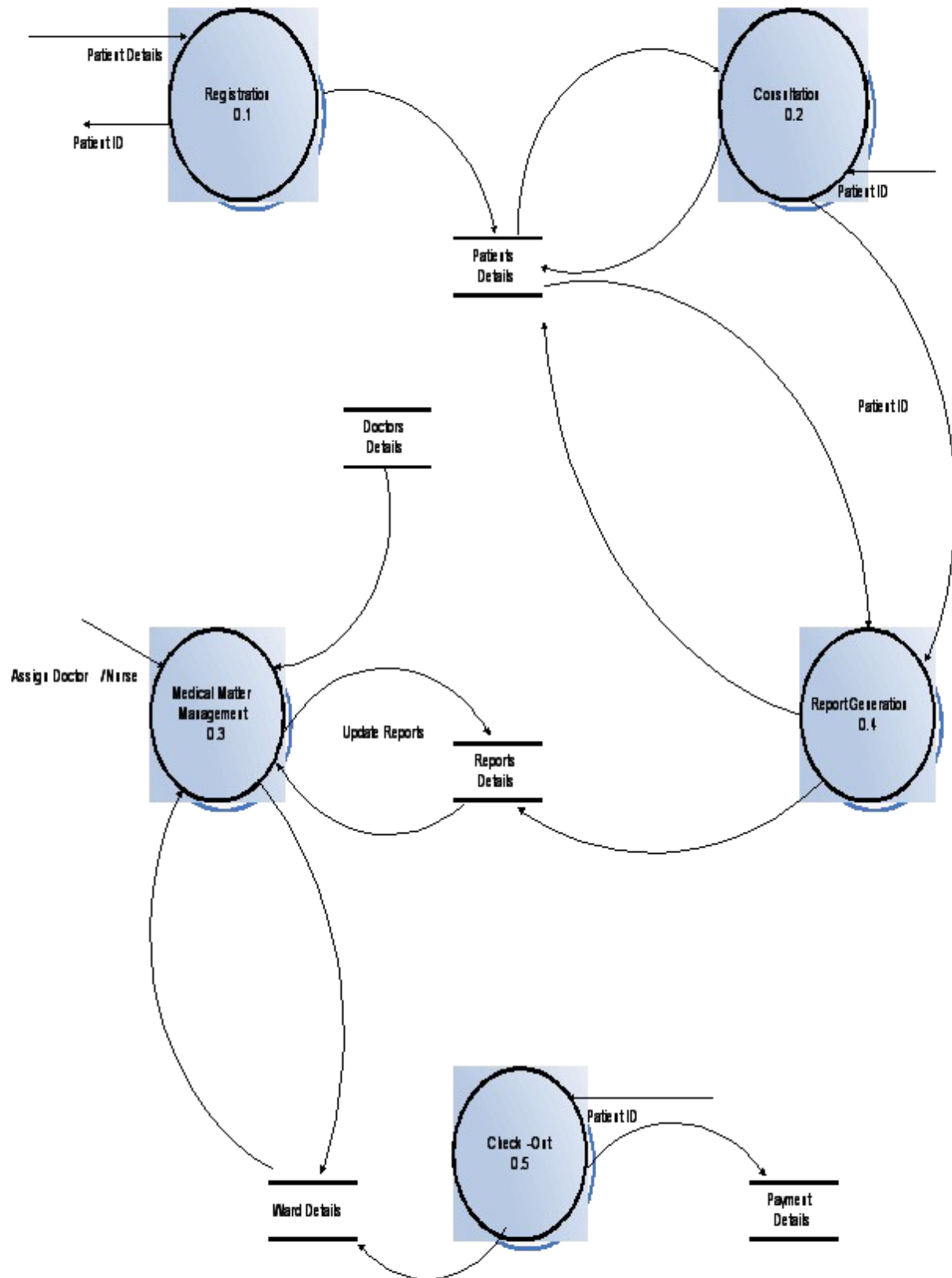


## 4.2 Data Flow Diagram

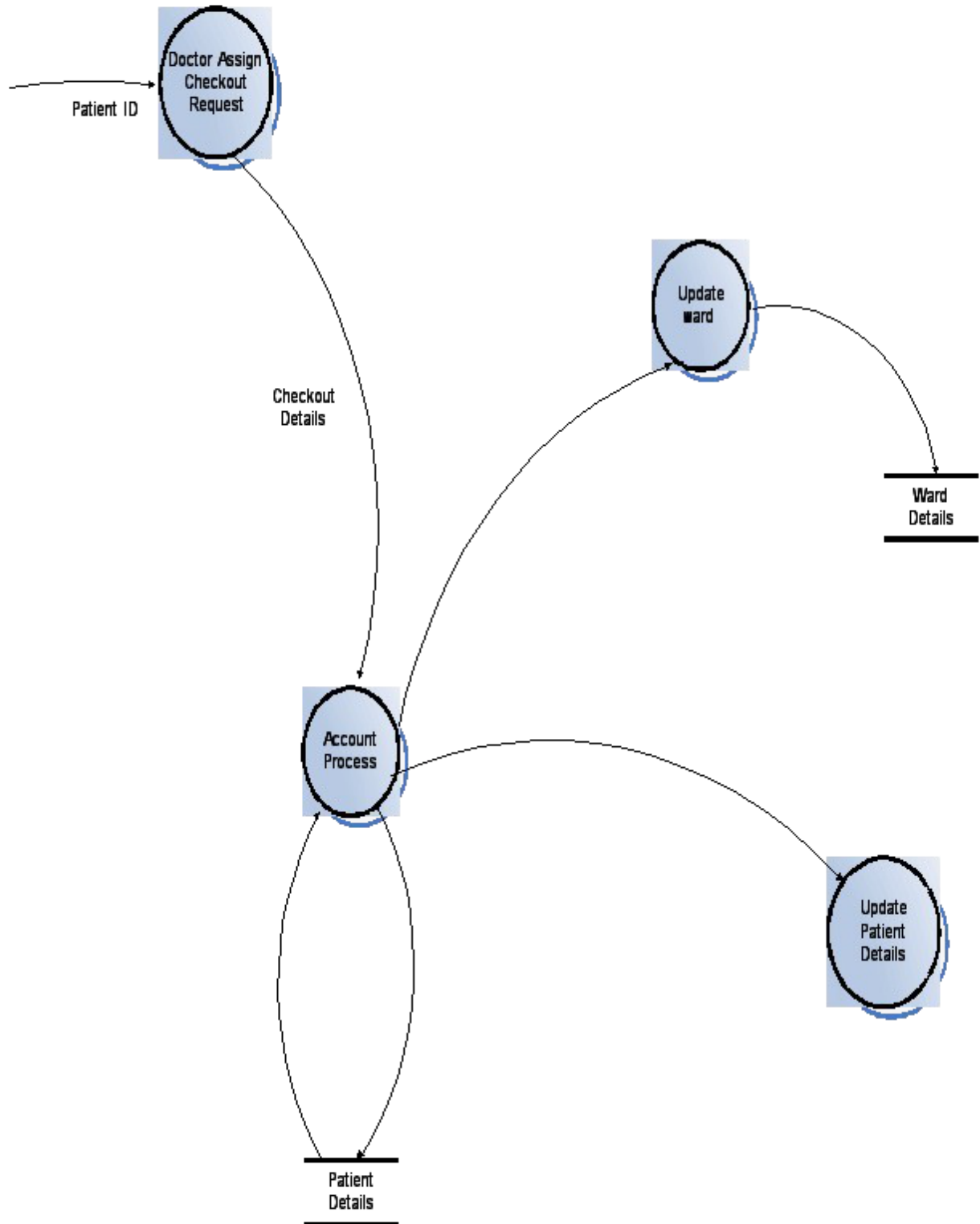
### Hospital Management

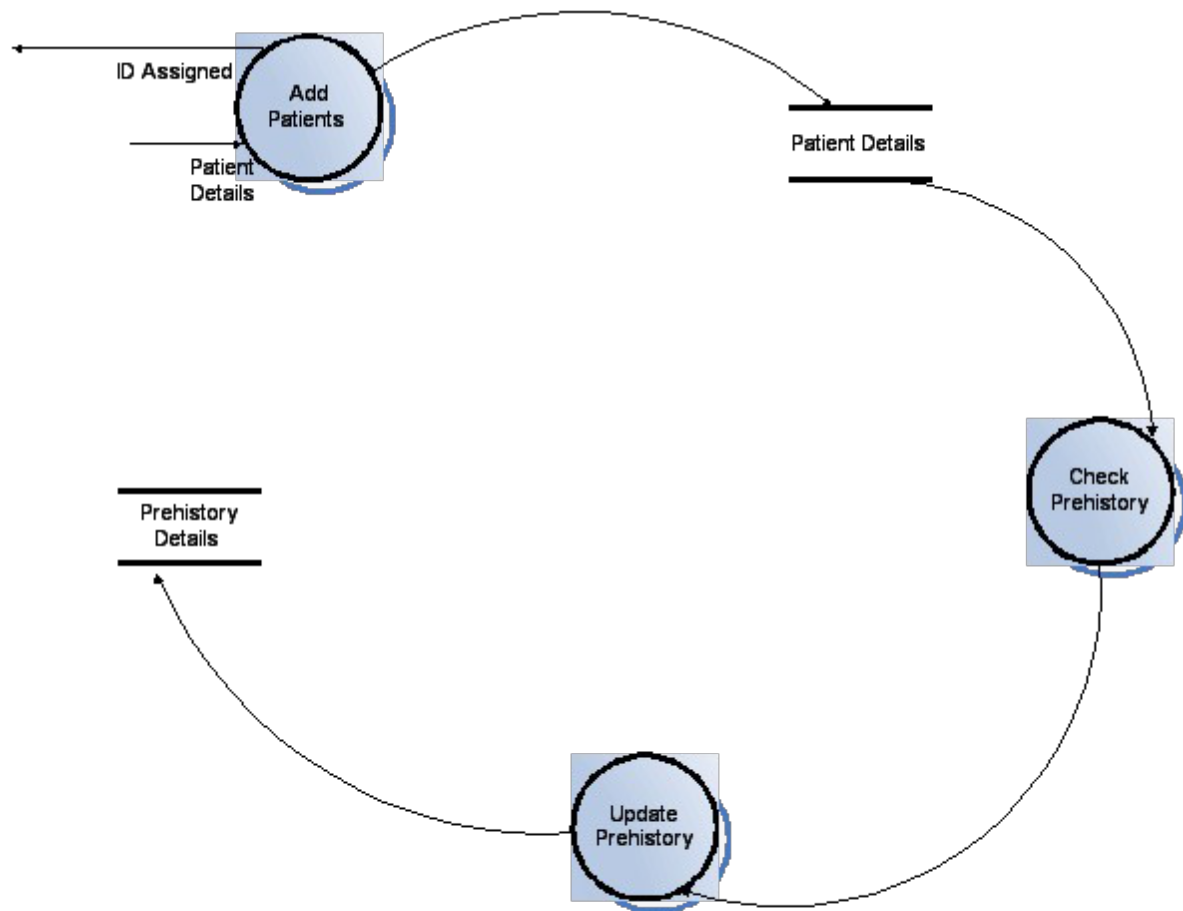
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## Level 2.5





### 4.3 Glossary:

FAQ: Frequently Asked Questions.

IEEE: Institute of Electrics & Electronics Engineering

IS: Information Systems

IT: Information Technology

Marquee: A piece of text that scrolls across a browser document window.

SDD: Software Design Document

SRS: Software Requirement Specification

Staff: The people who works for Hospital Management.

Team: The name of the developer group.

User: People who use the System and the administrator of The Hospital management system.

Web: the network of computers that forms the Internet.