Software Requirement Specification (SRS) for Health-Care Management System(HCMS)

1. Introduction

1.1 Purpose:

The purpose of this document is to describe all external requirements for The Health-Care Management System(HCMS) . It also describes the interfaces for the system.

1.2 Scope:

This document is the only one that describes the requirements of the system. It is meant for the use by the developers , and will also by the basis for validating the final delivered system. Any changes made to the requirements in the future will have to go through a formal change approval process. The developer is responsible for asking for clarifications, where necessary, and will not make any alterations without the permission of the client.

1.3 Definitions, Acronyms, and Abbreviations:

Acronyms and Abbreviations:

A. HCMS : Health-Care Management System.
B. SRS : Software Requirements Specification..
C. GUI : Graphical User Interface.
D. JDBC: Java Database Connector
E. JDK : Java Development Kit.

Definitions:

The Health Center Management System project has been divided into four modules. They are-:

1. Registration

2.Drug Store

3.Case Records

4.Daily Entries

Module-One:- Registration

This module consists of the following sub modules viz.

1. Inserting the Records -: the persons sent from the different departments

2.Viewing the Records

3.Update the Records

Module-Two -: Drug Store

This module is divided into three sub modules. They are

1.Inserting Drugs

2.Updating Drugs

3.About Drugs

Module-Three -:Case Records

This module has been divided into three sub modules. They are

1.In-patient Record (Student)

2.In-patient Record (Employee)

3.Out-patient Record (Student & Employees)

Module-Four -:Daily Entries

This module again is divided into two sub modules. They are

1.Pharmacy daily Entries

2.Nurse daily Entries

1.4 Overview:

The rest of this SRS is organized as follows:

Section 2 gives an overall descriptio of the software. It gives what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed.

Section 3 gives specific requirements which the software is expected to deliver. Functional requirements are given by various use cases. Some performance requirements and design constraints are also given.

2. Overall Description:

2.1 Product Perspective:

1. HCMS is aimed towards a manageability of Health centre Drugs and patients records which is carrired out in file system and so needs software assistance for keeping records regarding the activities. HCMS should be user-friendly and reliable software for the above purpose.
2. HCMS is intended to be a stand-alone product and should not depend on the availability of other software ,except of database and JDK. It should run on both UNIX and Windows based platform.

2.2 Product Description:

This section attempts to describe each module of the project in brief, andthe detailed description of each of these modules is spread through out this document.

The Health Center Management System project has been divided into four modules. They are-:

1.Registration

2.Drug stores

3.Case Records

4.Daily Entries

1.Registration

This module has been divided into three sub modules. They are

1. Inserting the new records

2. Retrieving the record

3.Update the record

1.1 Inserting the new record:

The information of the students and employees are send from the different departments to provide the free service. All the records which are send from the departments are entered into the database and each member is represented through the unique number known as the opno. Inserting of the new records include the opno i.e which is allotted uniquely for providing the free services, Name, Age, Sex, Address , Family members of the employee and other Beneficiaries under the S.V. Health Center.

1.2 Retrieving the details:

The records which are entered into the database are retrieved to check whether that person who has come to take the service at the health center is eligible to take the service are not. This is done by entering the opno that has allotted to the patient, if the data is retrieved from the database the person is eligible to take the service and by this ,if person is the employee then in some cases he/she is charged like wise the x-ray charges and the bed charges for the employee. The students are not charged in any cases all the services are provided for the free of the cost.

2.Drug Stores:

This module is divided into three modules. They are

2.1 Drug Entry

2.2 Updating Drug Entry

2.3 Stock Details

2.1 Drug Entry-:

This is an entry done by entry operator after getting the stock from the medical transcripters and the information is stored in the database. The information is in the form starting with the Drug name, in-stock, Expiry date1 and Expiry date2. The Drug name is uniquely identified such that the database is maintained without any complexity. Here the expiry date is represented in the form of month-year, but not in the form mm / dd / yy. The stock is first stored in the main drug stores and every week it is shifted to the pharmacy store by watching the stock at the pharmacy house.

2.2 Updating Drug Entry-:

This is an entry done by same entry operator after the drugs all entered in the database. The drugs should be shifted to the pharmacy house by checking the stock at the pharmacy house. First the Main drug store maintains the stock and the drugs are shifted to the pharmacy house periodically. This periodical shifting of the drugs are updated such that the drug house knows how much of the stock is present in the drug store, Here the drug

stores mainly considers the expiry date as the main criteria the drugs which have the nearer expiry date are shifted to the pharmacy house.

2.3 Stock Details -:

The stock details are so important such that we know how many drugs are in the main store, what are the expiry dates of the drugs.When the stock is taken it will minimum of two and maximum of five expiry dates. So it is better to watch the expiry dates so that the drugs are shifted to the pharmacy house according to the drugs which are having the early expiry date.

3.Case Records

This module has been divided into three sub modules. They are

3.1 Students In-Patients Records

3.2 Employees & Beneficiaries In-Patients Records.

3.3 Out – Patients Records (Students & Beneficiaries)

3.1 Students In-Patients Records-:

The information about the in-patients should be notified such that the treatment for the patient is done in the proper way. The students who are in-patients are maintained separately because everything to the student is served freely i.e there is no bed charges, no charge for the scanning, no charge for the X-Rays and every thing is supplied freely. There may be special cases that are used for case studies how that disease has occurred and what are the precautions are to be taken to overcome that disease. The diseases that affect the other patients are shifted to the Isolation ward such that disease is not affected to the other patients.

3.2 Employees In-patient Records-:

The employees and other beneficiaries are maintained separately such that there are applicable for some charges .These employees have the bed charges, X-Ray and Scanning charges. These are calculated according to the days present in the hospital.The medicines are freely served to the patient only in some special cases the patient is charged.

3.3 Out-Patients Record-:

The patients are served for the common problems which are not serious, the treatment to all the beneficiaries and students are provided freely. There are separate wards for the ladies and gents and in some special cases patients are sent to the chief doctor.

4.Daily Records-:

Daily records are then divided into two sub modules. They are

1. Pharmacy Daily Entries:

Pharmacy daily entries are the entries which are given to the out-patients and these are noted at the end of the day. Daily entries will give the information about how many drugs are needed every day. This will then take the sufficient number of drugs from the main stores to the Pharmacy house.

2.Nurse Daily Entries:

Nurse daily entries that are entered with the operator when the drug has been administered to the patient, The date, time what type of the drugs applied to the patient are to be noted in certain period of time.

2.3 User Characteristics:

A. The user should be familiar with the Health-Care Management related terminology like Drugs Name, Database,Depertment,Treatment etc..

B. The user should know the details of a transaction.

C. The user should know about the activities performed in Hospital and should know that how they are carrired out.

2.4 Principal Actors:

The only one principal actor in HCMS are “Admin” .

2.5 General Constraints:

1. **Software Requirements:**

Platform	-	Windows /Unix.
Software	-	JSDK 8.0, Mysql.

2 . **Hardware Requirements:**

Processor	-	Intel celeron class Processor with 2.0 GHz
RAM	-	256 MB
Hard Disk	-	40 GB
Keyboard	-	101 keys
Mouse	-	Any pointing device

3.Specific Requirements:

3.1 Functional Requirements:

We describe the functional requirements by giving various use cases.

Use Case 1: Login

Primary Actor: User (Admin)

Pre Condition: Nil

Main Scenario :

1. Start the application. User prompted for login and password and Access(Admin).
2. User gives the login and password and choose Access and click 'Login' .
3. System does authentication.
4. Main screen is displayed.

Alternate Scenario :

1. Authorization fails
   A. Prompt the user that he typed the wrong password or Access.
   B. Allow him to re-enter the password.

Use Case 2: Patients perspective
Primary Actor: Patient
Pre Condition: User logged in.
Main Scenario :

1. User enters the patients information and register him.
2. patient will give payment and get a receipts.
3. Now patient can go for checkup.
4. User clicks 'Exit' , if no more patients to make.

Use Case 3: Doctor's perspective
Primary Actor: Doctor
Pre Condition: User logged in.
Main Scenario :

1. Doctor will register himself.
2. Now after Diagnosis Reciept,he can give prescription.

3.2 Performance Requirements:

1. Should run on 500 MHz, 64 MB machine.
2. 90% of the responses should be within 3 sec.

3.3 Design Constraints:

1. **Security**: No -one can acess the system without and correct access request .
2. **Fault Tolerance**: Data should not become corrupted in case of system crash or power failure.
3. This Health Center Management System require huge resources as Hundreds of the patients will require the services instantly, quick response time are needed. The database should also be very large and robust to maintain very huge patients and drugs data.

3.4 External Interface Requirements:

3.4.1. The user screen will be with all optionns . The home page will have options below :

Admin:

1. About HCMS
   A. Staff
   B. Department
2. Registration
   A. Insert a Record
   B. View a Record
   C. Update a Record
3. Drugs Store
   A. About Stock
   B. Insert Drugs
   C. Update Drugs
4. Case Record

A. In-patient Record(Employee)
B. In-Student Record
C. Out-patient Record

5. Daily Entries
   A. Pharmacy daily Entries
   B. Nurse daily Entries

6.Exit
   Will close the screen.

3.4.2. Database is to be used to store data permanently. Here permanently means it is only user alterable or we (providers) can alter in case of maintanence.

4. Specific Requirements of Ambulatory Medical System:

System will contains only information about Ambulatory services to that in any time can contact on that information in emergency situation.

End of Software Requirements Specification