



HealthCare Management System

System Requirements, v2

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1. SYSTEM REQUIREMENTS

The system solves the problem of handling healthcare data during collection, storage, and retrieval. The aim is to provide efficiency in terms of computation and cost so that medical staff have access to all the data they need in time and the right format. Both functional and non-functional requirements were handled in the first iteration of the project design. These have been revised through communication with the customer as shown in the table below:

1.1. Functional Requirements

Requirement No.	Priority Weight	Description
REQ-1 Login	18.2	The associate can enter their correct credentials in the login page and will be successfully logged in. If entered data is invalid, an error message will be displayed.
REQ-2 Add new patient	16.8	A receptionist will enter the patient details and the system will assign a unique patient ID.
REQ-3 Add/edit/delete user	14.6	An administrator will have the ability to add, edit, and delete users.
REQ-4 Search for patient	12.7	All associates will be able to search for patient details.
REQ-5 Generate bill	11.0	The Billing Clerk will enter the patient details and charges in order to get a total and generate a bill.
REQ-6 Request lab test	8.9	Doctors can request for lab tests.
REQ-7 View lab test requests	7.1	Doctors and lab associates can view all new lab test requests. Lab associates will be able to approve or deny requests.
REQ-8 View lab tests in progress	6.7	Doctors and lab associates can view all lab tests in progress. Lab associates can complete lab tests.
REQ-9 View lab test results	6.0	Doctors and lab associates can view all lab test results.
Total: 100		

1.2. Nonfunctional Requirements

These are the salient features of the system not related to its function, but which ultimately influence its utility. The initial proposal had stated security, performance, platform independence and maintainability as the key non-functional requirements. However, scalability has been added to this list since the system needs to withstand logical expansion without compromising on performance and speed. Also, the 'LOW' priority level assigned to maintainability as a functional requirement has been revised to 'HIGH' owing to the data-intensiveness and service-critical nature of the system that requires it to be highly maintainable in the case of crashes. The final non-functional requirements are shown below:

Requirement No.	Priority Level	Description
REQ-10 Security	Critical	Secure access by username (ID) and password.

REQ-11 Performance	High	User-friendly interface for better interaction.
REQ-12 Platform Independent	Normal	Can be accessed by any type of platform.
REQ-13 Maintainability	High	Backup of the database will be taken, and extra memory will not be occupied because there will not be any redundancy in the database.
REQ -14 Scalability	High	The system must be able to handle growth efficiently.

1.3. User Interface Requirements

Requirement No.	Priority Level	Description
REQ-14	High	This screen will provide an interface for the user to enter their login credentials.
REQ-15	High	Displays the homepage for the system.
REQ-16	High	Will enable accredited staff to add/edit/delete a user.
REQ-17	Normal	Provides interface for a new patient to enter their credentials for purposes of registration.
REQ-18	Normal	Interface for searching a given patent.
REQ-19	Normal	Shows the bills incurred by a given user.
REQ-20	Low	Provides interface for requesting a lab test.
REQ-21	Low	Shows the laboratory tests that are new.
REQ-22	Low	Shows the laboratory tests that are in progress.
REQ-23	Low	Interface for showing lab results.

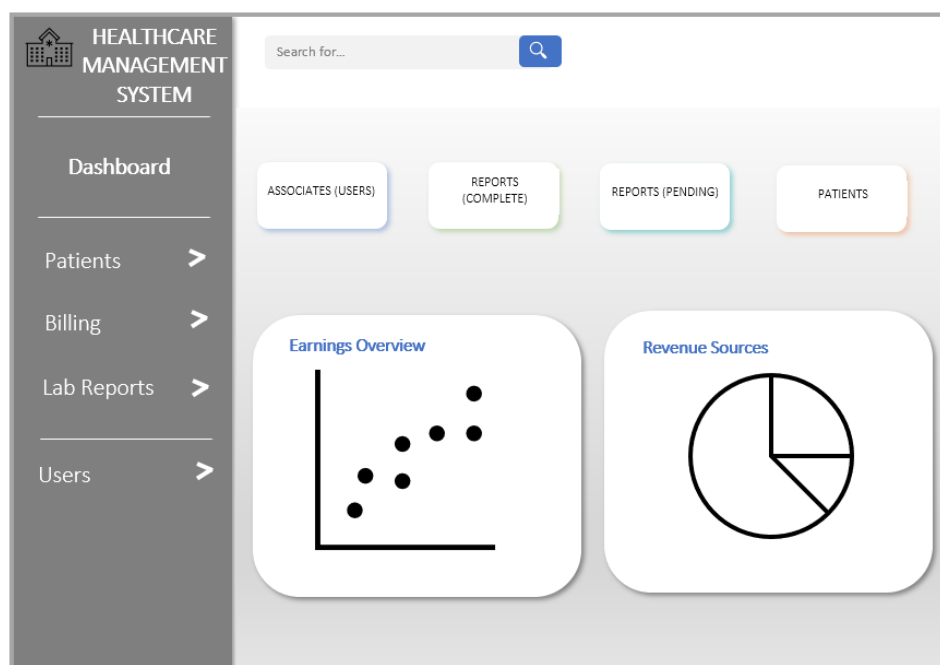


1.3.1. User Interface Requirement designs

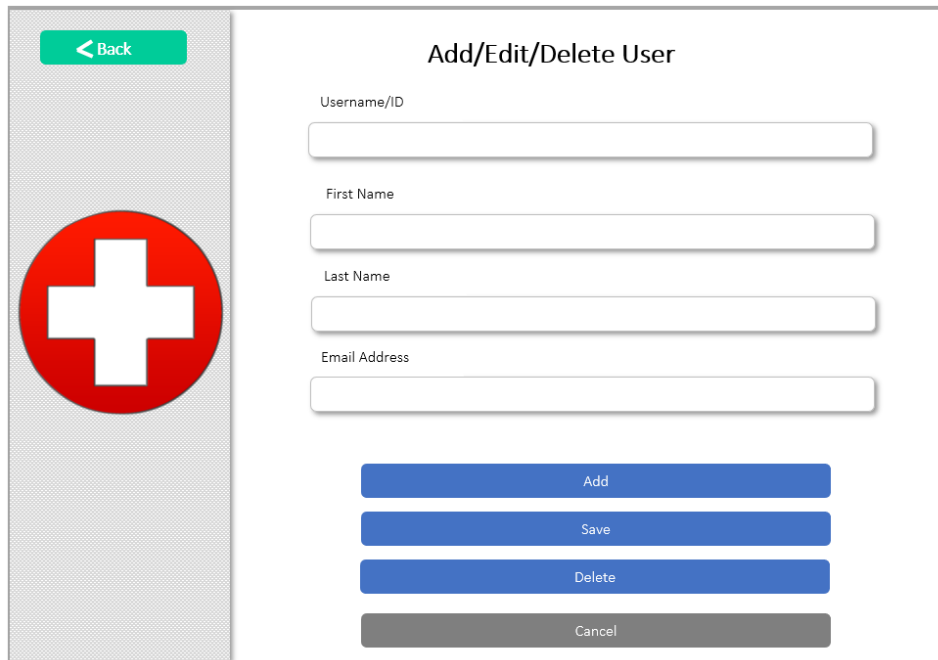
1.3.1.1 REQ-14 design

The design shows a login screen for the 'HEALTHCARE MANAGEMENT SYSTEM'. On the left is a dark grey sidebar with a home icon and the system name. Below this is a 'Dashboard' section, followed by a list of menu items: 'Patients', 'Billing', 'Lab Reports', and 'Users', each with a right-pointing chevron. The main content area is white and contains a login form. The form has two input fields: the first is labeled 'ID' and the second is labeled 'PASSWORD'. Below these fields is a 'Login' button.

1.3.1.2 REQ-15 design



1.3.1.3 REQ-16 design



The form is titled "Add/Edit/Delete User". It features a sidebar on the left with a green "< Back" button at the top and a large red circular icon with a white cross below it. The main content area contains four input fields: "Username/ID", "First Name", "Last Name", and "Email Address". Below these fields are four buttons: "Add" (blue), "Save" (blue), "Delete" (blue), and "Cancel" (grey).

< Back

Add/Edit/Delete User

Username/ID

First Name

Last Name

Email Address

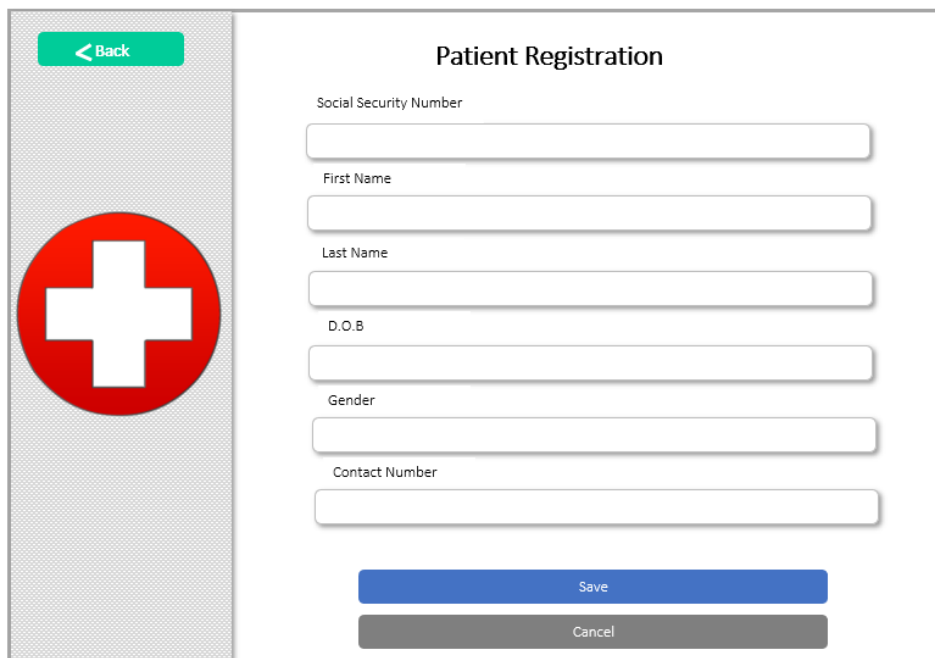
Add

Save

Delete

Cancel

1.3.1.4 REQ-17 & REQ-18 design



The form is titled "Patient Registration". It features a sidebar on the left with a green "< Back" button at the top and a large red circular icon with a white cross below it. The main content area contains five input fields: "Social Security Number", "First Name", "Last Name", "D.O.B", and "Gender". Below these fields is one input field for "Contact Number". At the bottom are two buttons: "Save" (blue) and "Cancel" (grey).

< Back

Patient Registration

Social Security Number

First Name

Last Name

D.O.B


Gender

Contact Number

Save

Cancel

1.3.1.5 REQ-19 design

HEALTHCARE
MANAGEMENT
SYSTEM

Dashboard


Patients >

Billing >

Lab Reports >

Users >

Search for...



All Bills

Bill Number	Date	Room Charges	Doctor Fee	Lab Fee	Patient	Other

View Bill


Edit Bill

Delete Bill

Create New Bill

1.3.1.6 REQ-20, REQ-21, REQ-22, & REQ-23 design

< Back



Lab Test

Patient

Test Name

Description

Doctor

Date

Status

Save

Cancel



2. REFERENCES

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