

Software Requirements Specification

for

Hospital Management System

Version 1.0 approved

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2 Introduction

2.1 Purpose/Objective

- Better management of hospital
- Providing right info anywhere any time
- Giving patients better experience in terms of transparency like by giving correct info about bill, doctors, cost of medicines, our facilities
- To track disease and get improved data every time so cheap and better medicines should be used.

2.2 Document Conventions (Definition, Acronyms, Abbreviations)

- HMS stands for hospital management system
- Info stands for information
- fn stands for function

2.3 Scope

HMS system is going to be online so it will reduce complications related to hospital. Like it will store patient data online in database so there is no risk of damaging like in file system. Hospital is going to more transparent as no of beds vacant and other facility will be provided earlier. It is also going to save life and time of many in more efficient way as symptoms regarding problem will be already given at home so best slot will be allocated to get treatment from best doctor.

2.4 References

3 History/Background Study (Sources of Domain Knowledge)

3.1 Technical Literature

<https://existek.com/blog/hospital-managment-system/>

3.2 Existing Applications

<https://proton.apollohospitals.com/>

3.3 Customer Surveys

Customers says due to lack of info and also uncertainty they are not trusting any new hospital even listening best facilities are present. So if these were transparent they will surely trust it.

3.4 Expert Advice

Experts often says the future every management is going to be online.

3.5 Current/Future requirements

In current scenario it is much needed and in future we can not think a hospital without it. As life of everyone has become so busy that people don't have time for manual things so in order to meet this requirement online is the future.

4 Overall Description

4.1 Product Functions

4.1.1 Hardware Requirement

Laptop/pc
Ram: 4GB or more
HDD:500MB or more

4.1.2 Software Requirement

This project is to be developed by Django which is a framework of python.so latest version of python and Django is required.

Database: SQLite3

Operating System: windows 7, windows 10, mac, Linux etc.

4.2 Functional Requirements

4.2.1 Registration the new doctor, nurse, patient will register themselves

4.2.1.1 Doctor/Nurse

4.2.1.1.1 Sign Up

Input: input name, highest qualification, working experience, email, phone no., age, address, password

Output: your details have been submitted wait for approval by admin.

4.2.1.2 Patient

4.2.1.2.1 Sign Up

Input: name, age, email, phone no., address, password

Output: Message signup
successful.

4.2.2 Login user/admin/doctor/nurse will have to login using
email and password

4.2.2.1 Login for user/admin/doctor/nurse

4.2.2.1.1 Login

Input: email and password
Output: Redirect to
respective portal

4.2.2.1.2 Forgot password

Input: Email if email
found

Output: message otp
successfully sent to your
email please enter it

Input: otp new password,
confirm new password if
valid

Output: message password
changed successfully

4.2.3 Functional requirements for patients

4.2.3.1 Fixing appointment with preferred doctor or
randomly

3.2.2.1.1 appointment with preferred
doctor

Input: preferred doctor and
Symptoms

Output: Appointment time
And date Will be
Informed to you

Shortly after approval

3.2.2.1.2 appointment with
random doctor

Input: symptoms and

Preferred time slot

Output: appointment done

On your preferred date & time

Appointment id will be
displayed

4.2.3.2 Message to doctor

Input: your doctors id and message

Output: message sent successfully

4.2.3.3 Inbox

Input : patient id

Output: message like doctors reply, total cost
of medical facility if any required

4.2.3.4 Admitting in hospital

Input: patient id

Output : if beds are available bed is allocated
and whole bed will decrease by 1

4.2.3.5 Settlements of bills

Input: patient id

Output: bill will be handed over to patient

4.2.3.6 Discharge

Input: patients id

Output: if bill is settled patient discharged with certificate and available bed will increase by 1

4.2.4 Functional requirements for doctor

4.2.4.1 Appointment details

Input: doctor id to fetch shedule of particular doctor

Output: that doctors schedule for day and appointment ids for respective patients

4.2.4.2 Patients List

Input: doctor id to fetch patients of that doctor

Output: that doctors patients list

4.2.4.3 Messages from patients

Input: reply message

Output: replied tick

4.2.5 Functional requirements for nurse

4.2.5.1 Shedule details

Input: nurse id to fetch shedule of particular nurse

Output: that nurses schedule for day

4.2.5.2 Patients List

Input: nurse id to fetch patients of current nurse

Output: that nurses current patients list

4.2.6 Functional requirements for admin

4.2.6.1 Approve doctor/nurse

Input: admin id to fetch pending accounts of doctor/nurse

Output: display of list

Input: if legal request then accept else rejected or delete

Output: list of pending requests

4.2.6.2 Assign appointment time

Input: Appointment request

Output: list of appointments request

Input: time slot for that particular doctor

Output: message added in schedule for that particular doctor.

4.2.6.3 Assign schedule to nurse

Input: Select a nurse and fix schedule

Output: message schedule sent

4.2.6.4 Details of staff

Input: staff category to get all staff of that category

Output: list of staff of that category

Input: create/update/delete

Output: modified list

4.2.6.5 Facilities

Input: select category of facilities like bed

Output: get info about vacant, occupied

Input: add/update/delete that item

Output: Display updated info

4.3 Non-Functional Requirements

4.3.1 Correctness Requirement

Time to time HMS should be improved to make it more user friendly and also to ease user experience more new features should be added.

4.3.2 Portability requirement

Can run on any mobile, laptop, pc, tablets....

4.3.3 Efficiency Requirement

Even if system fail, backup will be recovered within an hour or less if not updated.

4.3.4 Usability Requirement

Can run using any system having any web browser and internet.

4.3.5 Reusability Requirement

Codes are reusable can be used in these kind of projects.

4.3.6 Reliability Requirement

As the system is approved by hospital and trusted by many patients so it is 100% reliability and to increase it feedback must be updated time to time. And for data security it is 100% secure as Django is famous for security.

4.3.7 Maintainability Requirement

HMS should be maintained regularly like addition of new facilities and about vacancy of beds....

4.4 User Characteristics

- Customers will be given full overview of HMS system.

4.5 Design & Implementation Constraints

- Each user have unique login credentials.

4.6 Assumptions & Dependencies

- Each user must have valid login credentials.
- Only admin can delete records.

- User must be logged in to view further details.
- Server must be running always to fn HMS properly.

5 Interface Requirements

5.1 User Interfaces

This software provides good user interface so that everyone can use it easily.

5.2 Hardware Interfaces

Any laptop/pc....

5.3 Software Interfaces

Python

Django

SQLite3

5.4 Communication Interfaces

Any laptop/pc/mobile/tablets....

for better experience smaller screens are bot preferred.

6 Conclusion

This SRS document is used to gives details regarding HMS. In this all functional and non-functional requirements are specified in order to get clear cut idea to develop projects.