Software Requirements Specification
for
Personal Medical Record Management System
Government Engineering College, Wayanad

Group No:8

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Contents

1 Introduction

1.1 Purpose

The purpose of this document is to give a detailed description of Personal Health Record Managing System. This document will explain purpose and features of the system and identifies its users. It is intended for hospitals, patients, admins and viewers of the system.

1.2 Scope

The system helps patient's to view their medical data through an android application and share these data to officials for claiming insurance, clearing medical tests, and any other official purposes. We ensure authenticity by making hospitals to upload the data themselves .Uploaded datas are stored in cloud.

1.3 Document Conventions and Acronyms

Term	Defenition
PMN	Permanent Medical Number; A medical identification number provided to Nation's every citizen.
User	A person who use this platform to store their health records.
Repository	The page in the application in which the records are uploaded.
Data	Details,records or scripts such as text,photo or document regarding one's medical conditions.

1.4 References

1. IEEE Recommended Practice for Software Requirements

1.5 Overview

Section 2 of this document gives an overall description about the product. It describes the general functionalities,expected user groups and constraints of the product. Section 3 gives more specific information about the functionalities specified in section 2 . Section 2 is a general view of the system and should be used as a guidance to section 3. Section 3 is intended for hospitals, patients, admins and viewers of the system.

2 Overall Description

2.1 Product Perspective

The introduction and establishment of this product will be a revolution in our health sector. In this system all the data must be legit so that it can be used for official purposes like claiming insurance. Here the hospital are solely responsible for uploading user data that prevents the user from tampering the data for any malicious purposes. Also user can share any of their data to concerned parties via our system. Also we used a cloud platform to store all these data. Even though we only built the demo of this proposed entire system , we hope , with proper regulations , guidance , and maintenance it can bring change in our society together.

2.1.1 User Interfaces

The user module and viewer module have same login page as admin and hospital have same login page. There are separate signup pages for user,viewer and hospital. There is a menu or dashboard provided to each module for navigating through different pages. User signup page contains name, dob, place, email,etc. Hospital signup page contains name, license number, post, etc. Admin home has user, hospital approval, approved hospitals and etc.

2.1.2 Software Interfaces

This product requires the following software products PyCharm, SQLyog, Android Studio and wamp server.

2.2 Product Functions

This section outlines the use cases of the user. Specific functionalities will be discussed in section 3.

2.2.1 Creating account

For accessing this platform user need to create an account through signup section by adding their personal info.

2.2.2 uploading personal data

Hospital can upload their medical records at will be stored in the cloud storage system.

2.2.3 removing personal data

Hospital can remove all or none of their data at anytime.

2.2.4 applying for verification of Hospital and Viewer

The data uploaded by Hospital can be verified by Admin,or any other authorised party.they can approve or reject this application based on the genuinity of the application.

2.3 User Characteristics

The users of this platforms are Hospitals, Patients, Viewer and Admin.

1. User(patients):-
   Patients can access this system via the android mobile application. The main function is to view and manage their medical data. All their medical records will be available in this module to view and share. There is a qr code attached to every record so that the user can just show it to whomsoever concerned instead of handing over their device. There are other functions such as rate hospitals and complaint section.

2. Viewer:-
   Viewers are concerned parties who need some access to some patient's records for various official reasons. They can only access the record with user's permission .Viewer need to scan the qr from patient's app to access the corresponding file.

3. Hospital:-
   Hospital's main function is to upload medical records. Here weensures no tampering will occur to medical data and they will by authentic and legit by making hospitals to upload the data themselves instead of patients. Hospital module is available as a web application. Apart from uploading they can also view patient's basic details and previous medical data uploaded by themselves only in the web browser.

4. Admin:-
   Admin available as a web site. It has many functions. Viewer and Hospital modules need approval from Admin to get access to our system. Admin is responsible for granting approvals to hospitals and viewers and also revoke the approval and block them for serious concerns. Admin also needs to view and may give replies to patients complaints about hospitals.

2.4   Constraints

Hospital only upload the data in a specified manner (type,size etc). is responsible for granting approvals to hospitals and viewers and also revoke the approval and block them for serious concerns.

2.5   Assumptions and Dependencies

None

2.6   Apportioning of requirements

The following requirements should be provided as increments on future versions and need not be included in the first release. This is to ensure the delivery requirements of the product. No more specific details for these requirements will be provided in section 3.

1. online or tele medical consultancy
   Users can consult certified doctors and get prescriptions from them.

3   Specific Requirements

3.1   Functional Requirement Specification

This section describes each functionalities and their flow of events in detail. The actor in each use case is always the 'User', unless specified explicitily.

3.1.1 Creating account

Use case name	:	Creating account
Objective	:	The user creates an account through signup section.
Priority	:	High
Precondition	:	a mobile or computer with internet connectivity and either of the mobile number or email id linked with id should be active.
Flow of Events	:	1. Basic Flow

    1.1. User selects sign up button from the first page.

    1.2. Then enter their personal information.

    1.3. After successful submission user creates their own username and password in specified fields.

3.1.2 uploading data

Use case name	:	uploading data
Objective	:	The Hospital uploads Medical data
Priority	:	High
Flow of Events	:	1. Basic Flow

    1.1. Hospital identifies the user.

    1.2. hospital upload the new data .

    1.3. QR code will generate for the each and every data uploaded by the hospital.

    1.4. uploaded data are encrypted by AES ENCRYPTION TECH

    1.5. key for the encryption are generated by selecting attribute randomly from user table

3.1.3 remove data

Use case name	:	remove data
Objective	:	The Hospital can deletes the data from repository.
Priority	:	High
Precondition	:	Firstly the data needed to be there in the repository inorder to delete it
Flow of Events	:	1. Basic Flow

    1.1. Hospital goes to simple data section in the repository which are uploaded by them.

    1.2. selects the data item to be removed.

    1.3. click options for that particular item and select delete(then confirm it).

3.1.4 applying for verification of Hospitals and Viwer

Use case name	:	application for verification
Objective	:	The Hospital and Viwer applies for verification .
Priority	:	High
Precondition	:	The data must be uploaded firstly inorder to verify it.
Post Conditions	:	After successful verification both hospital and viewer can access this entire system.
Flow of Events	:	1. Basic Flow

      1.1. Hospital and viewer signup to this portal and and click apply for verification option.

      1.2. verification can only be done by concerned Administration ,hospital or authorised party.It will take time.

      1.3. After successful verification they can access this entire system

3.2 Non-functional Requirements

3.2.1 Performance Requirements

The system should not take more than 1 second to load any pages. It is basically a database and many people may access it simultaneously , so it requires adequate hardware support.

3.2.2 Portablitiy

it is as portable as anything.

3.2.3 Security Requirements

Security is a big concern since the platform contains sensitive data about individuals.Inorder to protect it the application should be no place for any loopholes.