**SOFTWARE REQUIREMENTS SPECIFICATION**

FOR

**AN ONLINE DOCTOR APPOINTMENT WEBSITE**

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Contents

[INTRODUCTION 3](#_Toc83301457)

[Purpose 3](#_Toc83301458)

[Scope 3](#_Toc83301459)

[References 3](#_Toc83301460)

[HISTORY/BACKGROUND STUDY 4](#_Toc83301461)

[Technical Literature 4](#_Toc83301462)

[Existing Applications 4](#_Toc83301463)

[OVERALL DESCRIPTION 5](#_Toc83301464)

[Hardware Requirements 5](#_Toc83301465)

[Software Requirements 5](#_Toc83301466)

[Functional Requirements 5](#_Toc83301467)

[NON-FUNCTIONAL REQUIREMENTS 6](#_Toc83301468)

[Usability 6](#_Toc83301469)

[Performance 6](#_Toc83301470)

[Portability 7](#_Toc83301471)

[Reliability 7](#_Toc83301472)

[Space 7](#_Toc83301473)

[Security 7](#_Toc83301474)

[User’s Characteristics 7](#_Toc83301475)

[Design and Implementation Constraints 7](#_Toc83301476)

[Assumptions and Dependencies 8](#_Toc83301477)

[INTERFACE REQUIREMENTS 8](#_Toc83301478)

[User Interfaces 8](#_Toc83301479)

[Hardware Interfaces 8](#_Toc83301480)

[Software Interfaces 8](#_Toc83301481)

[Communication Interfaces 8](#_Toc83301482)

[CONCLUSION 9](#_Toc83301483)

# INTRODUCTION

## Purpose

The purpose of this software is to create a website where doctors can put up their profiles for patients to view them and consult them. Patients will be able to search through the profiles for specialists or diseases. Consultation will involve video calling on the website and an uploaded prescription. Any visitor can also view an articles column where doctors registered on the website can upload health related articles. Registered patients who have availed services from this website will be able to rate this website to help others.

## Scope

Our Online doctor appointment website will consist of the following features:

1. Separate registration pages for Doctor and Patient
2. Separate Login Pages for Doctor and Patient
3. Home page, where patient will be able to search Doctors by name, or specialty or disease name to get a list of available doctors.
4. Book an appointment and make the payment.
5. Videocall feature will be enabled only during the appointment Time slot.
6. Patient will be able to upload medical reports or other documents. And will be able to download Prescription uploaded by the doctor.
7. Reading articles uploaded by our doctors
8. Logout
9. Rating /Reviewing system for this website and the services we are offering

## References

*Following are some of the Research papers, Journals and Project reports we referred to, for preparing this SRS:*

Yeo Symey, Suresh Sankaran arayanan, Siti Nurafifah binti Sait “Application of Smart Technologies for Mobile Patient Appointment System”, International Journal of Advanced Trends in Computer Science and Engineering, august 2013.

A. Luschi, A. Belardinelli, L. Marzi, F. Frosini, R. Miniati and E. Iadanza “Careggi Smart Hospital: a mobile app for patients, citizens and healthcare staff”, IEEE-EMBS International Conference on Biomedical and Health informatics (BHI), 2014, pp.125-128.

Prof. S. B. Choudhari, ChaitanyaKusurkar, RuchaSonje, ParagMahajan, Joanna Vaz “Application for Doctor‟s Appointment with Live Conferencing ”, International Journal of Innovative Research in Computer and Communication Engineering, January 2014

S.Gavaskar, A. Sumithra, A.Saranya “Health Portal-An Android Smarter Healthcare Application”, International Journal of Research in Engineering and Technology, Sep-2013.

# HISTORY/BACKGROUND STUDY

## Technical Literature

The backend part of this software will be written with Python (Django framework) and the database management system, MySQL will used to store the data of the registered doctors, patient and their published articles and other important stuffs. The frontend part will be written using HTML and CSS and JavaScript.

## Existing Applications

There are several similar applications already available, such as the websites of some functioning hospitals.

# OVERALL DESCRIPTION

## Hardware Requirements

Smartphone, Laptop / Desktop with decent uninterrupted Internet Connection.

## Software Requirements

This website will run on any modern web browser, such as Google Chrome, Firefox, Edge, Opera Mini. The browser must support JavaScript and accept Cookies.

## Functional Requirements

The functional requirements of this software are as follows :

**R1: Creating a profile ( for doctors )**

Inputs: Doctor’s name, photo, email id, contact information, times of availability, credentials and license number

R1.1: The data entered will be held for verification for some time ( up to 6weeks )

R1.2: On verification, the doctor will be welcomed to the website and his profile will be added to the database

**R2: Creating a profile ( for patients )**

Inputs: Patient’s name, photo, email id, contact information, gender, age, address

R2.1: Validation of the data will be done in front end. Email validation will be done, preferably using Secret code.

R2.2: After successful registration Patient will be welcomed to the Dashboard Page where he/she can use the various features offered by the system.

**R3: Uploading an article ( for doctors )**

Inputs: A text document, with pictures if applicable

R3.1: The data entered by the doctor will be uploaded on the website as an article

R3.2: The article will be visible to any visitor to the website under the “Articles” column

R3.3: The article will be visible as search results if the search keywords match with the content of the article

**R4: A search engine ( for all)**

Inputs: Name of a doctor, name of a disease, or name of a specialty

Outputs: A list of items from the database with matching keywords as the search result that can include the doctor’s information displayed on cards, and articles written on similar keywords

**R5: Making an appointment**

Inputs: Patient’s name, appointment time, contact info and payment

R5.1: As soon as the patient makes the payment, she/he gets a notification on her/his number that the appointment has been booked and the doctor with whom she/he has booked the appointment will also get the notification of the appointment at the scheduled time.

**R6: Video Calling**

The appointment will take place in video calling mode with both the patient and the doctor participating in the call and conversing with each other.

**R7: Document Upload / Download**

After the conversation, the doctor will be able to type and upload a pdf of his prescription to the patient who will be able to download the same.

On the other hand, doctor can also download the reports or other documents uploaded by the patient who is under his appointment.

**R9: Rate and Review**

In the review section, Patients will be able to rate the website out of 5 stars and write a review under 50 words. This review will be visible to all visitors of our website.

# NON-FUNCTIONAL REQUIREMENTS

## Usability

* Interface elements should be easy to understand.
* The user should be able to learn to use a system in less than 30 minutes.
* Time required for registration should be less than 5 minutes.
* Error messages should explain how to recover from the error.
* Actions which cannot be undone should ask for confirmation.

## Performance

* All of the operations carried out in the system must respond within 5 seconds.
* The system has to support 5000 concurrent users.

## Portability

A website has to be compatible with different popular web browsers (Google Chrome, Mozilla Firefox etc.)

## Reliability

* The probability of failure less than 0.01% .
* Uptime of at least 99% .
* Less than 30 minutes needed to recover from system failure.

## Space

User needs only enough disk space and RAM for web browser

## Security

* The password should be at least 8 characters, containing 1 Upper case, 1 lower case and 1 number.
* Website should use different techniques in order to have secure transfer of data to database
* All users’ data can’t be sold or distributed to other entities without their previous approval.

## User’s Characteristics

User for this website can be anyone. But, the registration has to be done with the details of the patient in particular and not any other member of the family. Also, during registration the photo provided should match with other documents uploaded (if any).

## Design and Implementation Constraints

All the entities will be stored as tables inside the MySQL database. For this whole project we will only be working with a single database.

## Assumptions and Dependencies

Since this project is not meant for a full release in the market, the payment system will only be be a dummy system that will be built using the APIs available for multiple Payment Options like PayPal, GPay, and Debit/Credit Card. This payment will not be a real time payment and is done only for the sake of testing of the application and ensure that it is properly running.

# INTERFACE REQUIREMENTS

## User Interfaces

The UI would be simple and easy to understand. It will use contrasting colors so that every user can see what they are doing clearly. A home page will be available to all visitors of the website, but only registered users will be able to visit dashboard page and enjoy the core functionalities of the website which is essentially the doctor appointment system.

## Hardware Interfaces

Apart from a Computer (or smartphone), no extra hardware is required. But an uninterrupted internet connectivity is necessary.

## Software Interfaces

The latest version of the browsers Google Chrome, Firefox, Edge and Opera Mini would be required to run this website.Also, the payment portal needs to be operated by a third party.

## Communication Interfaces

We will be using WebRTC to enable the real-time media, voice and video communication. Other communications, such as the database connectivity will be handled by the Django MVT model.

# CONCLUSION

We hope that all the information provided here will give a decent overview about how we will continue with the development of this project. In case if any modification should be done in the SRS, kindly raise the query at our email:

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