

Health Care System

SRS

Presented By Group 21

version	Written by	Reviewed by	Approved by	date
1.0				
2.0				

Introduction

Executive Summary

Health-tech is a complete health care platform built to make it easy, smart and efficient way for doctors and patients. Both doctors and patients have profiles on Health-tech, it allows patients to know the best doctors in the field they need, easily make clinic appointment and easily order medicines from pharmacies as they got their prescriptions online.

Document Overview

In System Requirement Specifications (SRS document), we specify functional and non functional system requirements in details, and provide more technical information.

Abbreviations & Terminologies

References

12 Best Hospital and Healthcare Websites :

<https://www.intechnic.com/blog/12-best-hospital-and-healthcare-websites/>

System Description

Introduction

The system includes the following:

- **Doctor Account**

Doctors get account of their type, that account contains the complete information including, but not limited to, his personal information, contacts, and his medical career information and a rate given to him by his patients.

The doctor accounts also enables him to: create a personal profile, create a clinic page for clinics that he manages or works in, get in touch with his patients, access the clinic appointments anytime he wants, see updates from his patients, easily write medical prescriptions to his patients and follow up with them after clinic appointments.

- **Patient Account**

Patients get their accounts. A patient profile contains complete information about him, including his personal information that doctors need, his contacts, and medical history including all the previous appointments he made, and health conditions he previously suffered from. The patient account also allows the patient user to search for doctors and clinics, once he finds the suitable doctor he can easily get an appointment at his clinic, after the appointment, the patient usually needs care after the appointment and follow up meetings with his doctor.

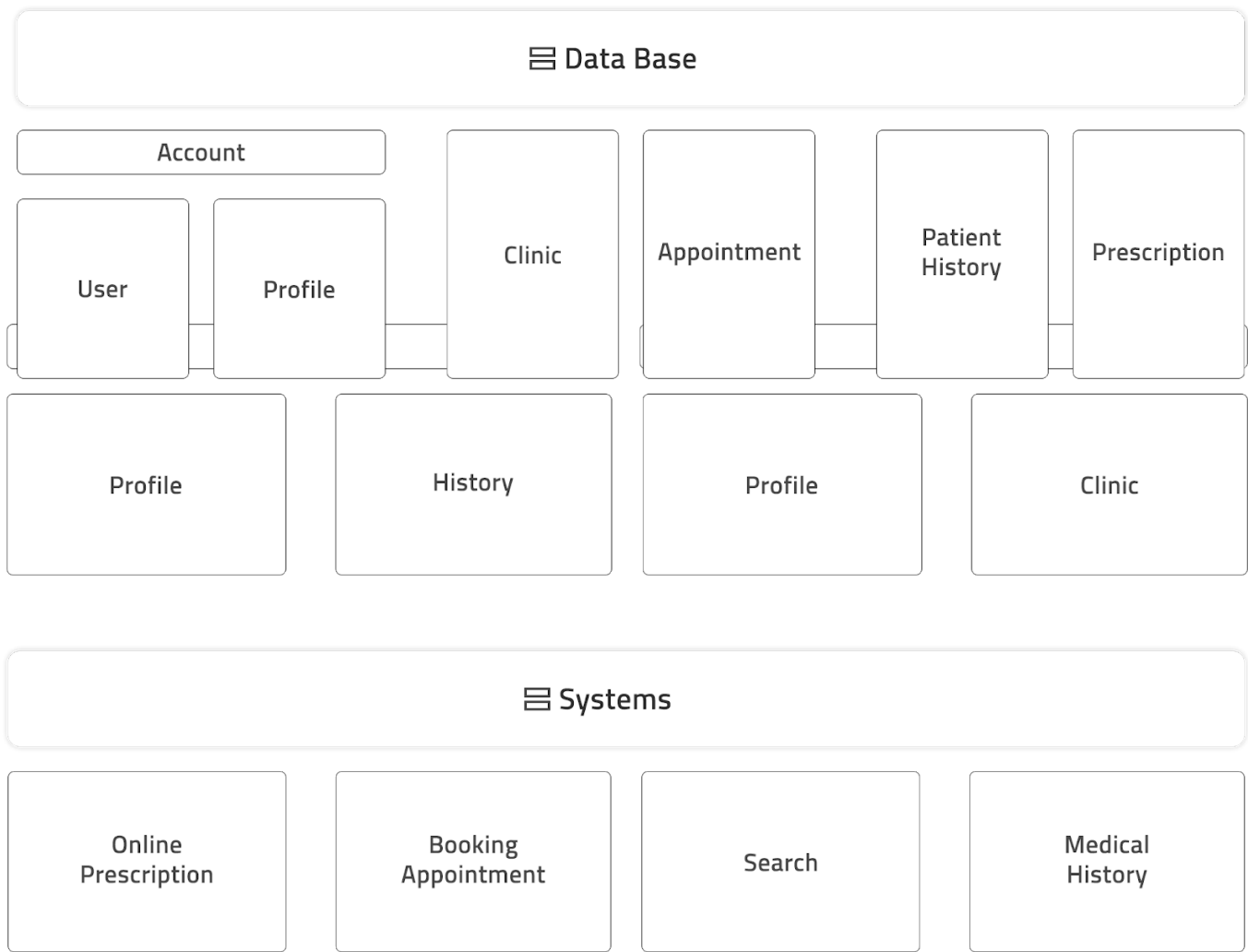
- **Clinic Page**

Each doctor can create or join a page for a clinic he runs or works at, a typical clinic page contains contact information, address, doctors that work on it, time slots of medical appointments, Patient can directly reserve an appointment from the clinic page, patient can also know the available slots or the number of appointments right before his one in real time to save his time.

- **Appointment Management system**

Our website offers a system for managing the appointments, as the patient gets his doctor appointment. Doctor can instantly access patient information and all previous medical records to help him give the right and accurate diagnosis. During the appointment, doctor can add the diagnosis to the patient profile, write prescriptions for the patient that he easily can print out, prescriptions also will be added directly to his profile. When having a new appointment, it will be added to the clinic time slots, and to the doctor and patient calendar to be able to avoid any time conflicts.

System Architecture



Users

A. Patient

Any patient will be able to have an account to interact with the website and benefits from its services like: booking dates for examination at the doctor of his choice, Having a full list of doctors and clinics in every field so he can have a lot of options to choose from.

B. Doctor

Any doctor will also have his own account in order to market for himself and establishes a profile for his own clinic so that patients can choose him, He can also organize his schedule of reservations and has an easier contact with his patients.

Modules

Sign up & Login System:

In order for the doctor and the patient to benefit from the services of our site, All they have to do is to sign up and enter some basic information such as : Username, password, Mobile Number, Full Name, Gender, etc.

Patient Profile:

Each patient will have his own profile contains his personal information, His medical history, His reservation date and his prescription after examination.

Doctor Profile:

Each doctor will also have his own profile contains his personal information and his working field and he might be able to provide some information about his clinic or whatever he wants.

Clinic Page:

Each doctor will be able to establish his own clinic page So that he can put all the information in it such as: Name of the clinic, Field, Prices, Address, Available slots.

All this information will make everything easier for the patient to pick a suitable clinic.

Databases

a. Users table:

We will have a table for the user Whether he is a patient or a doctor

This table includes the username and the password entered by the user .

b. Profiles table:

Includes details about the user

Have records like (status “doctor or patient”, name, address, bank account,etc)

Have relation with users table

c. Clinics:

This table includes fields (clinic name, address, phone, department)

d. Medical records (Patient Medical history):

this table will include details of prescription

So this table has fields (doctor name, patient name, the department, the date of examination, description of health status, and the medicine)

This table will have a relation with profile table, appointments table, clinics table

e. Appointments records:

This table to show reserved and unreserved appointments so the patient schedule an appointment

Have fields (patient name, doctor name, date, more details)

System Functions

Sign up & Login System Functions

Provide basic information

Description: In order for the doctor and the patient to benefit from the services of our site, All they have to do is to sign up and enter some basic information

Inputs: Username, password, Mobile Number, Full Name, Gender, etc.

Outputs: user can benefit from the services of site.

Pre-conditions: login page.

Post-conditions: sign up page.

Patient Profile Functions

Present Personal information

Description: Each patient will have his own profile contains his personal information.

Inputs: there is no inputs.

Outputs: personal information, medical history, His reservation date and his prescription after Examination.

Pre-conditions: Patient page.

Doctor Profile Functions

Present Personal information

Description: Each doctor will also have his own profile contains his personal information

Inputs: there is no inputs.

Outputs: working field and he might be able to provide some information about clinic or whatever he wants.

Pre-conditions: Doctor page.

Clinic Functions

Present Clinic information

Description: Each doctor will be able to establish his own clinic page So that he can put all the information in it

Inputs: Name of the clinic, Field, Prices, Address, Available slots.

Outputs: All this information will make everything easier for the patient to pick a suitable clinic.

Pre-conditions: add or edit clinic page.

Post-conditions: show me clinic page.

System Models

Use Case Diagrams

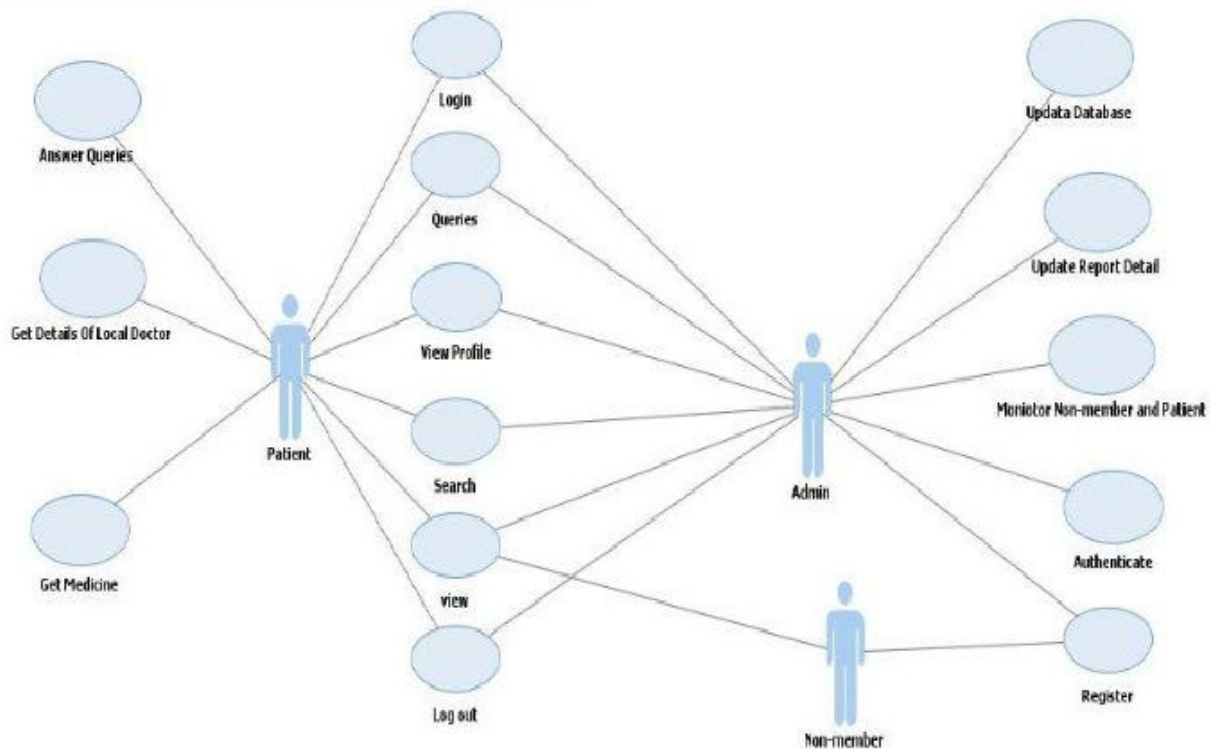


Diagram Description:

This Diagram shows a simple explanation to the data flow and the possibilities available to users

Such as: patient or doctor, admin , non member

Patient : There are many services available to each user of the site, the patient can get information about the doctors available on the site and information about their specialties and clinics and get the appropriate medicine for him and can enter his profile and modify his own data and can access to his account and out of it He can easily book an appointment at the clinic he wants.

Admin: can get his profile and have all the services available to the patient and can modify the data Biz and follow-up non-members and members, whether patients or doctors and can modify the data for the site.

Non-member: Many services are not available to non-members of the site, the user must register and enter his data in order to enjoy all the services of the site, the registration step is very simple and requires no effort ... What a non-member can do is register with us and become a member of the site or he can Take a tour of the site and see the pages of the site.

System Users

A.Patient

Each patient will have a private account which will give him full access to all services in the website, Just by filling some basics information, the patient will be able to create his own account which is necessary so that we can guarantee a complete privacy to the patient and also guarantee him a simple and easy experience with our website, so for a patient to create his account, He has to enter these basics information like: Username, Password, Gender, Full name, Phone No, Email.. etc.

Once the patient fills this information, he's be ready to start his/her experience with the website.

B. Doctor

Each doctor will create his own private account which will contain all his public information that the patient should know about, It will also help the doctor to create an account for his clinic and put it on the website so that it will be easy to reach by anyone and that will make the process of reservation very simple and easy to everyone.

So the doctor has to do is filling a simple form which has some basics information like: username, password, gende, full name, date of birth, age , an active email , phone number ,address , medical major .

This information must be entered correctly and accurately as the patient will see them and know about the doctor so it is important to be sure before entering any piece of information.

Non-Functional Requirements

A.Security Requirements

Security Requirements for this website is clear, each user will have his own profile and

His own username and password No one can know the password of the user except the user himself and this will ensure complete security for each user

Also for any user to make an appointment, he ha to login to his profile first which will confirm his identity No one will be able to book appointments or view data about the user except the owner of the profile himself.

Also after the examination, the doctor or the clinic will send the prescription to the patient and to his profile, This will enable him to see it alone.

The information that the patient will give to the doctor during the examination will be private between the doctor and the patient and it won't be published or posted on his profile.

B. Usability Requirements

This site will be handled by the public, so one of the most important Usability Requirements is user-friendly, the site has to be easy to use and does not contain complex words or many steps to reach a certain stage and also will have a site on the site to explain the steps necessary to make a profile or to schedule a doctor for this for the patient, There is also a plan to explain how to create a profile and create a page for his clinic or to create a sheet of more than one clinic, which will facilitate the use of the site for the patient and the doctor.

C. Performance Requirements

It is also necessary that the site is fast and does not require much time in the case of dealing in the medical field, every minute is very precious so the interaction of the site with the user should be fast so that the patient does not need a long time to book an appointment.

There should be continuous follow - up of the site process and correct errors quickly so that the accumulation of errors does not lead to Crash in the system which might be a huge problem for the patients and the doctors depending on the website.

D. Technology Requirements

The requirements of technology are to keep abreast of modern sites and use all modern programming languages that give a good product and usable.

E.Development Requirements

The development method used in this project is agile Which was more suitable for the method of work and the many modifications and reference to the customer in order to put some modifications and delivery in multiple stages all these reasons have made the Agile method is the most appropriate for this project

F.Ethical Requirements

- No inappropriate images or phrases may be used or public modesty may be undermined

- The site is available free to all without distinction because we believe that treatment must be provided to all, it is a human right.

- Any person who tries to access other people's data or to post any offensive information or phrases that are not permitted by them will be dealt with firmly.

Domain Requirements

Medical Terms Requirements

Dealing with the medical field Imposes some constraints like the problem of Medical Terms In some cases, these terms are very complicated, making it difficult to understand them Therefore, the restrictions on our site are to use the terms as they are and in the same way so that the meaning is properly communicated. We will try to simplify the terminology for the user as much as possible.

Prescriptions Requirements

Prescriptions contain very important information, which may not be understood by the patient but the doctor and pharmacist understand it well and therefore we will have to transfer prescriptions as the doctor to the patient without any attempt to simplify the information within them so as not to lead to the loss of important information can affect the choice of pharmacist For appropriate treatment for the patient.

System Interfaces

User Interface

Profile Screens

- 1- patient profile
- 2- doctors profile

login Screens

- 1- sign in page
- 2- sign up page
- 3- profile editing page

Clinic screens

- 1-edit and add clinics screen
- 2- show me clinic page

Communications Interfaces

The Health-care system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

Hardware Interface

Minimum Requirements:

A.client side

	Processor	Ram	Disk space
Firefox-Google chrome-Internet Explorer-Opera	Intel pentium 3	128MB	150 MB

B.Server Side

	processor	RAM	Disk space
RAD	Intel pentium 3	1 GB	3 GB
DB	Intel pentium 3	512 MB	500 MB(excluding data size)