

HEALTHGENIC- Online Doctor Consultation and E-Health Commerce platform

1.1 Purpose

Online medical services are growing across the world rapidly due to the COVID-19 pandemic. Realizing you have a health issue that needs medical attention and treatment can cause anxiety. Instead of visiting the doctor and describing your symptoms in order to receive treatment, seeing a doctor online for any kind of periodical consultations seems to be a great option now. There are many benefits to booking a medical consultation online.

Need of Online Doctor Consultations to,

1. Provide Affordable doctor access
2. Access to specialists
3. Comfort and convenience
4. Time Saving
5. Online patient data Tracking -Convenience to both patient & doctor
6. Timely medical Advices

1.3 Definitions, Acronyms, and abbreviations Acronyms

C-DAC Center for Development of Advanced Computing

SRS Software Requirement Specifications

1.4 References for Requirement Analysis and Design

- Catalogues
- IEEE Recommended Practices for SRS. ANSI / IEEE Std 830 – 1993.
- <https://www.practo.com/>

1.5 Overview

The remaining part of SRS consists of

- 1) Complete description of the various product functions.
 - 2) Logical characteristics of product functions.
 - 3) Hardware and software configuration for servers and clients operating at various levels.
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Business Model:

HealthGenic is a platform through which patients connect with doctor for better medical services within less time. Apart from being a platform for Online consultation, HealthGenic works as an E-Health Commerce platform which provides medicines, health products etc. at less cost with faster delivery. HealthGenic Business model is mainly based on profits through its Ecommerce channel and commissions from Doctors & Diagnostics labs. Its revenue model centers around the medical providers (clinics) and HealthGenic will make most of its money through the SaaS subscription software and through its Ecommerce channel.

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1. List of Functions

2. Functional Description

1. List of Functions

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| 3. | F-3 | Login/Registration |
| 4. | F-4 | Book Online Doctor Appointment |
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| 6. | F-6 | Ecommerce Healthcare Product Market Place |
| 7. | F-7 | Online Payment |
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| 9. | F-9 | Maintain Clinical Reports |
| 10. | F-10 | Review and Rating |

2. Functional Description:

F-1. Function : Search Hospitals

Function ID : F-1

Purpose: It will Help the User to search The Hospitals Their nearby with Preferred Health Conditions at Any time and It will be helpful for Emergency situations to search Hospitals and doctors nearby us. And with this we are also facilitating the Emergency Ambulance Services in The Severe Cases to The Patients.

Organization Unit: Healthcare Department

Time (When: Accordingly

Performed)

Descriptions and Decisions: The Website contains the details of Different kind of Hospitals.

Data Entites: The Healthcare Department notes down the details of Every Hospitals Registered in The Region.

Documents Refer: Hospitals Database

Frequency: Daily

Data Entities: Details Of Registered Hospitals

F-2. Function Search Doctor

Function ID: F-2

Purpose: It will Help the User to search The Doctors According to their Diseases /Sickness/ infirmity On The website There will be plenty of doctors who are Specialist in their specific Domain Which will be more helpful to the User to go to the Specific Doctor and Have the Favorable Treatment Accordingly.

Organization Unit: Healthcare Department

Time (When: Accordingly

Performed)

Descriptions and Decisions: The Website contains the details of Different kind of Doctors With their Specialty. The Healthcare Department notes down the details of every Doctor Registered on the website.

Documents Refer: Doctors Database

Frequency: Daily.

Data Entities: Details of Registered Doctors.

F-3. Function Login/Registration

Function ID: F-3

Purpose: This will be Used in Order to Access the Services which we are Providing to the Intended Users (Basically the Doctors and Patients) other can also access services like Ecommerce Healthcare Product Market Place to purchase the Medicines/Supplements and Equipment's/Devices like thermometer, Digital Blood Pressure Monitor, Fingertip Pulse Oximeter etc.

Organization Unit: Database Manager

Time (When: Accordingly

Performed)

Descriptions and Decisions: This Functionality will Have All the Authentication Based on the Users. It will decide Accordingly where the certain user have the account on the website so he/she can Login Otherwise They have to Register Themselves First.

Documents Refer: Administration Database

Frequency: Daily.

Data Entities: Details of Users.

F-4. Function Book Online Doctor Appointment

Function ID: F-4

Purpose: In our project we are implementing Appointment Functionality via (phone call/SMS/mail). Appointment Scheduling is important as It Ensures that you make the best use of your time, it will also Illustrate to others that you value your own Time.

Organization Unit: Healthcare Department

Time (When: Accordingly

Performed)

Document Refer: Administration Database

Frequency: Daily.

Data Entities: Details of Registered Doctors.

F-5. Function: Book a test in diagnostic labs

Function ID: F-5

Purpose: In our Health genic platform, we are providing book a test in diagnostic labs with easy way. Upload your prescription or choose the lab test from the search box. Alternatively, you can call our customer service team on 70xxx-718-xxx and they will make the booking for you and also clear your doubts. We are also providing some offers for first two lab testing booking. We are providing E-Reports on same day.

Organization Unit: Diagnostic Labs

Time (When Performed) Accordingly

Documents Refer: Diagnostic lab Database

Frequency: Daily.

Data Entities: Details of Users Registered in Labs For various Tests.

F-6. Function Ecommerce Healthcare Product Market Place

Function ID: F-6

Purpose: The main purpose of this Functionality is to provide the Wide range of Products at Lower prices and discounts with the feedback and Review functionality at one platform. It will lead to more convenience to The User in order to get the things quickly.

Organization Unit: Sales Department

Time (When Performed): Accordingly

Documents Refer: Sales Database

Frequency: Daily.

Data Entities: Ecommerce Website will contain the information about Medicines and Equipment's/Devices.

F-7. Function Online Payment

Function ID: F-7

Purpose: Patients are engaged_in_their_healthcare more than ever as we move towards a convenient, digital way of viewing medical data. They are also less likely to forget healthcare bills

if they can view their statements and pay their bills all in one place with lots of benefits like discounts on Online payments. Data can be used for Medical Claim settlement or Cashless facility from Insurance Company.

Organization Unit: Billing Section

Time (When Performed) Accordingly

Documents Refer: Payment Database

Frequency: Daily.

Data Entities: All the payment details will be stored in payment gateways.

F-8. Function Medical Advices through chat

Function ID: F-8

Purpose: Health Genic provides consultation with licensed Doctors 24x7. Patient can comfortably and easily contact with Doctor's. Listening to the advice of a medical professional can help lead you to the best possible recovery. No prior appointment needed and can connect instantly from anywhere anytime with trusted Doctor's.

- When a person suddenly starts to feel ill and needs medical assistance, online consultation serves as the most ideal approach to get instant medical advice.
- It is possible for a patient to get a second opinion in case the previous consultation was a physical visit.
- Online healthcare is affordable and saves a lot of time. It is highly cost-effective for patients who need regular doctor visits. Visiting costs, transportation costs, and time are the major benefits of online consultation.
- Patients can get qualitative medical advice, consultation, and second opinions under a single roof. You can simply schedule your visit during a break, or before or after work. If you are too occupied to take out time for visiting a doctor, online consultation might be the best option for you.

Organization Unit: Consultation

Time (When Performed) Daily

Documents Refer: Java Socket programming

Frequency: Daily.

Data Entities: The ChatBot Itself contains all the information's which has been discussed between Doctors and patients

F-9. Function Maintain Clinical Reports

Function ID: F-9

Purpose: Your medical history is stored online and can be used for

future reference. Patient data management becomes very easy.

Health-Genic platform provides online doctor consultation maintain a high level of confidence in patient's records. Once you start with an online consultation, your medical history and records are all stored online for any kind of future reference. One can have easy access to the investigation reports and e-prescriptions just by sitting at home.

Organization Unit: Administration Dept

Time (When: Daily

Performed)

Documents Refer: Java Socket programming**Frequency :** Daily.

Data Entities: It will contain the information of Users Report on the website.

F-10. Function Review and rating

Function ID: F-10

Purpose: In this platform we are implementing review and rating functionality with the help of this patient share his good or bad experience and give review it is too important for another patient. Patients Review provides valuable information about what patients and service users think in our doctor. Examining patients' feedback will give a direct insight into what is working well and what needs further improvement in the way care is delivered.

Organization Unit: Customer Dept

Time (When: Daily

Performed)

Documents Refer: Customer Management

Frequency: Daily.

Data Entities: It will contain the information of reviews on the website.

3. Specific Requirements

3.1 External Interfaces

3.1.1 Authenticate with Firebase with a Phone Number Using JavaScript

We have used Firebase Authentication to verify user's mobile number by sending an SMS message to the user's phone. The user signs up using a one-time code contained in the SMS message.

3.1.2 Zoom Meeting SDK

To provide online video consultation we have used Zoom Meeting SDK. The Client needs to join the meeting at booked time slot.

3.1.3 Hardware & Network Interfaces (?)

⇔ Back-end Server Configuration

- Intel Core i3
- 4 GB RAM
- 1 Raid Controller Card
- 32-bit Ethernet Controller (100 Base T)
- 8 x 2.0 GB Fast SCSI/2 with Raid Support
- 2.88 MB FDD
- 48 x CD ROM Drive
- SVGA Color Monitor on PCI with 1MB RAM
- 101 Keys Keyboard
- 1 Microsoft Mouse with pad
- 4/8 GB DAT
- One Serial & Two Parallel Ports
- Internet Information Server (IIS)
- Microsoft Transaction Server (MTS)

⇔ Front-end Client Configuration

- Intel Core i3
- 4 GB RAM
- 10 GB Hard Disk Drive
- 1.44 MB Floppy Disk Drive
- 15" SVGA Digital Color Monitor
- One Serial, One Parallel port and One USB port.
- 104 Keys Keyboard
- PS2 Mouse with pad
- 32-bit PCI Ethernet Card
- 48X CD Drive

3.1.4 Software Interfaces

⇔ **Software configuration for back-end Services**

- Windows NT – Server 4.0
- MYSQL Server 7.0

⇔ **Software configuration for front-end Services**

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|--|-------------------------------------|
| • Virus Protection Software | • Norton Utilities |
| • Client Work station | • TCP/IP |
| • Office 2000 | • Other client application software |
| • Web Browser – Google Chrome/Brave Browser | as per requirement |

3.1.5 Communication Interfaces

Various network protocols such as ISDN, ATM will be used for Intranet connectivity. UTP Ethernet, TCP/IP Protocols will be used for Local Area Networks. Network hubs, routers, bridges, cables, patch cables, connectors will be required.