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Helpline Plus

Submitted by

Mostafijur Rahman ID 1611633042

**Shabbir Ahmed ID: 1621012042**

**Rakibul Islam ID: 1620408042**

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# 1. Introduction

**1.1 Purpose**

* The “ Helpline Plus” web application is intended to provide an efficient solution for patients as well as doctors and health professionals through a single gateway using the internet as the sole medium. It will enable patients to find all kinds of medical needs like Doctor’s appointment, hospitals, diagnostic centers, pharmacy, blood bank etc. on online without having to visit the medical centers physically. The administration module will enable a system administrator to maintain various lists of user’s emergency needs.
* This document is meant to discuss the features of HP, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

**1.3 Audience Definitions, Acronyms and Abbreviations**

**1.3.1 Audience Definitions**

This project is a prototype for the online medical helpline system and it is restricted within the varsity premises. This has been implemented under the

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**1.1 Purpose**

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This document is meant to discuss the features of HP, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

**1.3.1 Audience Definitions**

This project is a prototype for the online medical helpline system and it is restricted within the varsity premises. This has been implemented under the guidance of course professor. The intended readers of this document are the developers of the site, testers, website owners, managers and coordinators and for users as well.

**1.3.2 Acronyms and Abbreviations**

|  |  |
| --- | --- |
| **Acronym** | **Meaning** |
| HP | Helpline Plus |
| JAVA EE | Java Enterprise Edition 5 |
| HTTP | Hypertext Transfer Protocol |
| HTTPS | Secure Hypertext Transfer Protocol |
| TCP/IP | Transmission Control Protocol/Internet Protocol |
| DB | Database |
| ERD | Entity Relationship Diagram |

## 1.4 Intend Use

## E-medical refers to the process of ensuring health-care services via online. And it is important because it allows patients to have a better and instant healthcare and many more emergency medical needs like blood donation, pharmacy service, ambulance service within a very short amount of time only using internet. The main advantage of online medical help line is that it enables users to have emergency healthcare without being able to physically present at hospitals thus saves a lot of times, energy and money.

## 1.5 Technologies to be used

* Programming languages
* PHP:
* HTML, XML: Hyper Text Markup Language and Extensible markup Language are the predominant markup languages for web pages. It provides a means to describe the structure of text-based information in a document and to supplement that text with interactive forms, embedded images, and other objects.
* JavaScript: A client side scripting language used to create dynamic web content and user interface.
* Laravel
* CSS

**Tools & Development Environment**

* Apache Tomcat 6.0.18 Server: Apache Tomcat is a Servlet container developed by the Apache Software Foundation (ASF). Tomcat implements the Java Servlet and the JavaServer Pages (JSP) specifications from Sun Microsystems, and provides a "pure Java" HTTP web server environment for Java code to run.
* ECLIPSE J2EE: Eclipse is a toolkit which is designed for the creation of complex projects, providing fully dynamic web application utilizing EJB’s. This consist of EJB tools , CMP ,data mapping tools & a universal test client that is designed to aid testing of EJB’s.
  1. **Risk Definition**

**Passwords**

The first rule of any online risk management process is to use secure passwords. The most common mistake is to use the same password for everything. That may make it easier to remember them, but it’s also a huge security risk. When you set up passwords for sites where you’ll be spending money make sure you use a different, more complex, password. With so much online shopping done through mobile, make sure you password protect your devices with a separate password too.

**Protection**

If you do find something on a site you’ve never used before, you need to make sure that the checkout is secure. This also goes back to standard online risk management. Whenever you’re inputting personal information, but especially if you’re entering financial info, make sure the URL starts ‘https’ rather than ‘http’. That means the site is using a secure server.

**Privacy**

The final P is yet another that would make a list of standard online risk management tips. Privacy is important to everyone, but many people give it away all too freely online. Most online forms have minimum requirements for information sharing, it’s important that you don’t share more than you have to.

Online medical plus can be a real timesaver and efficient to use. It can make life easy and risk free. Just make sure you use the right risk management measures, so that your privacy and status is protected.

2. Overall Description

2.1 Product Perspective

* HP is aimed towards the patients and doctors who can provide and take services from each other. This project envisages bridging the gap between the doctors, the patients and the normal users and ensure a real time helpline service which will response as quick as possible. MPH should be user-friendly, ‘quick to learn’ and reliable software for the above purpose. MPH is intended to be a stand-alone product and should not depend on the availability of other software. It should run on both UNIX and Windows based platform.

**2.2 User Classes**

* User: Administrator
* Functions: The Administrator is the super user and has complete control over all the activities that can be performed. The application notifies the administrator of all help based requests, and the administrator can then approve or reject them. The administrator also manages the list of available hospitals, pharmacies etc. The administrator can also view and delete entries in the any list.
* User: Patients.

Functions: Any user can submit an account creation request through the application. When the request is approved by the Administrator, the requester is notified, and from there on is given the role of patients. The user is responsible for setting up the account and maintaining it. The job involves managing information of the profile of the user and relevant information. Also, the user can add or remove request anytime. The user can view different posts regarding other user’s request of help that give details of the help needed and can response his request and also can contact with them. Patient can contact with emergency service provider like ambulance service, online retail pharmacy and request for respective service needed. The user can also decide to close account temporarily and remove it from the website.

* User: Doctors

Functions: Any user can submit an account creation request through the application. When the request is approved by the Administrator, the requester is notified, and from there on is given the role of doctors. The user is responsible for setting up the account and maintaining it. A doctor can response to any request from patients and also can check their profile information and contact with them via chat interfaces and vice versa. The user can also decide to close account temporarily and remove it from the website.

## 2.3 User characteristics

* The user should be familiar with the medical related terminology like diagnosis/symptoms/prescription etc.
* The user should be familiar with the Internet.

## 2.4 Constraints

* There is no maintainability of back up so availability will get affected.
* Limited to HTTP/HTTPS.
* No multilingual support

**2.5 Operating Environment**

The HP is a website that shall operate in all famous browsers, for a model we are taking Microsoft Internet Explorer versions 7.0, 8.0 and 9.0 .

**2.6 Assumptions**

* Client/User has an active Internet Connection or has access to one to view the Website.
* Client/User runs an operating system which

Supports Internet Browsing.

* Our website will not be violating any Internet

Ethnic or Cultural Rules and won't be blocked by the Telecommunication regulatory commission.

**3. Specific Requirements**

**3.1 Functional Requirements:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **As a User** | **I want to** | **So that** | **Confirmation** | |
|  |  |  | **Success** | **Failure** |
| 1.as a user | sign in/sign up to the website | I can access and exit the system any time. | valid user signed in  a. “Remember me” ticked-automatic login next time.  b. “Remember me” not ticked – force login next time. | display message:  a. “Email address in wrong format”  b. “Incorrect user name, please try again”  c. “Incorrect password, please try again”  d. “Service unavailable – please try again later” |
| 2.As a patient | know doctors information like their name , email id’s, which specialist and their available service time | I can communicate further. | Valid patient will see  a. show doctors name  b. show which specialist  c. show email id  d. show service time | Display message:  a. search valid doctor and try again |
| 3.As a patient | hospitals information like name ,category ,email id’s ,location so | I can Find nearest hospital to our location and get access to their HOTLINE! | Valid patient will see  a. show hospital name  b. show hospital category  c. show email id  d. show exact location | Display message:  a. search valid hospital and try again |
| 4. As a patient | to know is there any available blood donor nearby | get to know about the availability of desired blood group and for emergency, request donors for blood | Valid patient will see  a. show available blood donor  b. show blood group  c. show email id  d. show phone number | Display message:   1. search valid blood group and try again 2. search valid blood donor and try again |
| 5.Normal user | security officials details like category , position ,phone number | I can Get immediate support from our nearest security services. | Valid user will see  a. show security category  b. show phone number  c. show position | Display message:  a. search valid security officials and try again |
| 6.Normal user | need fire station information | I can Call Fire Brigade for urgent help nearest to our doorsteps. | Valid user will see  a. show nearest fire station  b. show fire station location  c. show contact number | Display message:  a. search valid fire station and try again |
| 7.Normal user | searching option | I don’t go through all the other unnecessary info | User with valid search  a. will be able to see all the same categorized searched post | User with invalid search  a. will be told searched category not found |
| 8.Normal user | emergency comment ,post and messaging option | I can have discussion about my query. | Signed in member will be able to  a. post comment  b. edit comment  c. delete comment  d. block user | Unsigned member will be asked to  a. register on the site  b. sign in for being able to comment |

1. **Administrator:**

* **Database Management:** Control the database and keep track of all records of patients and doctors details.
* **Contact with doctors:** Contact with the doctors and give permission to response request and provide service under the site.
* **View all details:** View the details of all doctors and control the whole site.
* **Advertising the Site:** Responsible for making advertisements for the site.

1. **Patients:**

* **Login:** Patients must have a valid login id to enter into the site.
* **Registration:** New users can sign up by creating new ID.
* **View and edit Own Details:** Can view/edit his personal details.
* **Can upload documents:** Can upload any documents where it is necessary.
* **Requesting blood:** Can request for blood with necessary documentations.
* **Request to contact with doctors:** Can view all doctor’s profiles and search doctors with filters and request them for conversation.
* **Giving Feedback to Help Care:** Can give feedback to the 24X7 Customer Care Service centre about their impression for the site and services.
* **Logout:** Patients must logoutof the site after enjoying the service.

1. **Doctors:**

* **Taking Permission from Administrator:** Doctor must take permission from the Administrator for providing his services under the site. Administrator will test doctor’s documents and authenticate it to permit doctor for providing services.
* **Login:** Doctors must have a valid login id to enter into the site.
* **Registration:** New users can sign up by creating new ID.
* **Consulting with patients:** Can give consultation to the patients who send requests.

1. **Account Manager:**

* **View user details:** View the details of the patients and doctors.
* **Managing user accounts:** Responsible for managing all the information regarding the user accounts
* **Contacting with Administrator:** Responsible for informing administrator when any user account does any suspicious activities.

1. **Emergency Service Coordinator:**

* **Consulting with Administrator:** Taking permission from the Administrator for and responsible for informing the administrator about emergency service.
* **Coordinate with different emergency service station:** Responsible for managing and maintaining contacts with different emergency service provider.

1. **Customer Care:**

* **Getting Feedback from the users:** Responsible for receiving complaints, queries and feedback from the users.
* **Providing Solutions to users:** Provide feasible solutions to the users on their complaints and queries.

**3.2 Non-functional Requirements**

**3.2.1 Performance Requirements**  
• The system shall accommodate high number of items and users without any fault.  
• Responses to view information shall take no longer than 5 seconds to appear on the screen.

**3.2.2 Safety Requirements**  
• System use shall not cause any harm to human users.

**3.2.3 Security Requirements**  
• System will use secured database  
• Normal users can just read information but they cannot edit or modify anything except their personal and some other information.  
• System will have different types of users and every user has access constraints.

**3.2.4 Error handling**

MPH shall handle expected and non-expected errors in ways that prevent loss in information and long downtime period.