ABSTRACT

Blood Bank Management System is a web-based application. The entire project was developed with distributed client server computing technology in mind. Through this application anyone interested in donating blood can register through this website. Moreover, any general patients can request blood through this site.

Admin is the main authority who can do addition, deletion and modification if required. The project has been planned to be having the view of distributed architecture with centralized storage of the database.

This website has been developed using the HTML, CSS, JavaScript and bootstrap for the Front End and for backend I have used My SQL Server and PHP.

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CHAPTER 1

INTRODUCTION

1.1. Overview

Blood Bank Management is a browser-based system that is designed to store, process, retrieve and analyse blood related information. This project aims at maintaining all the information pertaining to blood donors, different blood group available in this blood bank and help them to manage in a better way. This website provides the user or the donors a secured environment by accepting the log in ID's and password from the user.

This application allows the user to store the donor details as soon as the donor is registered. The admin will check the donor registered details if only he/ she is capable for donating the blood then only the donor can donate the blood at their registered centres. Before that the admin will send message or notification to donor registered mobile number or email.

1.2.1. General Overview of the Problem

The problems are:
- Tracking the database was complicated when the details are maintained manually.
- It is time consuming and space consuming.
- Scarcity of rare bloods.
- Unavailability of blood during emergency.
- Less awareness among people about blood donation and blood transfusion.

1.2. Feasibility study

Feasibility study aims to uncover the strength and weaknesses of the proposed project objectively and rationally. A feasibility study analyses the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise while pursuing the project.

1.2.1. Technical feasibility

All the member of the group is familiar with PHP, so it helped us to work upon this project.

1.2.2. Schedule feasibility

The project has been chosen keeping in mind the scheduling of the project. The estimated time is feasible to complete the project.

1.3. Company Profile

Sikharthy Infotech Private Limited is a Web Development Company in Kolkata. Which provide Website Development. Website Designing, content Development, and Digital Marketing services in Kolkata. Sikharthy Infotech has a dedicated and highly-skilled team of resources for all kinds of assistance.

Sikharthy Infotech Private Limited has a Skill Development wing where students and freshers are getting skilled to join the IT sector. Today, many of the trained candidate are working with different MNCs like TCS, CTS, ITC Infotech and many

CHAPTER 2

LITERATURE REVIEW

2.1. Existing Systems

2.1.1. Blood Bank Management System- Isha Chawan, Sumedh Shinde

Introduction

India suffers from an annual deficit of two million units, as only 1% of the Indian population donates blood as stated by the World Health Organization (WHO). Due to substandard medical facilities and practices in many parts of the country, there have been cases of transmission of infectious diseases like AIDS. The need for blood is increasing along with its importance for treating various medical conditions. There are three main components of blood; plasma, platelet, and RBC/WBC. Especially during this covid pandemic, we're seeing a huge spike in the requirement of blood plasma from the patients who were recovered from covid-19 as their Convalescent Plasma now contains covid-19 antibodies.

Methodology:

The methodology chosen to develop the Blood bank system is the Rational Unified Process (RUP) from IBM developer works. RUP is a multi-layered adaptive process designed for software project teams that use their process elements as they scale up.

Problem:

- Cannot identify all the factors that affect blood. Like power failure, natural disasters, transport accidents.
- It is difficult to predict the uncertainty in the requirements for major road accidents.
- Large qualities of blood are being wasted.

2.1.2. Enhancing blood transfusion safety through the use of online blood bank management system -Shinas college of technology

Introduction

Blood transfusion safety remains an important public health concern in Oman. The availability of blood products of all blood types and the provision of its safety ensure public trust of its excellent healthcare system. However, lack of availability of these blood products and provision of unsafe blood products still impacts morbidity and mortality in the Sultanate. Through the use of online blood bank management system, blood transfusion safety is expected to be enhanced or improved. Risks on improper blood donors' documentation, and misplaced records can be minimized or totally avoided.

Methodology:

the researchers used both descriptive research and experimental research methodology. The study was descriptive because it describes the nature of the situations it exists at the time of study.

Problems:

- Blood donors and patients or recipients of blood donation are not system user, their registration or information will be encoded by the blood bank receptionists.

2.1.3 The Prospect and Significance of Lifeline: E-Blood Bank System- F.O. Umar, L. E. Ismaila, I. A. Umar

Introduction

the requirements for the blood are an important factor in the contemporary medicine and the health care. For every second there will be an individual who needs blood to save life. Blood transfusion is a lifesaving intervention that has n essential role in the total patient management within health care system. Over 4 million people are affected with infected with human immune virus by unsafe blood transfusion, 99% of 500,000 women die yearly with haemorrhage during pregnancy of childbirth

Methodology:

Data were collected using a self-administered survey distributed through the internet.

Problems:

- Integration of some additional functionalities in the system for better services.

CHAPTER 3

PROBLEM STATEMENT

3.1. Overview of Problem

The percentage of people donating blood is increasing day by day due to awareness to donate blood for those needed. The blood received have to be managed thoroughly so that there will be no negative effect to the blood receiver once they received blood. The use of paperwork in handling this process could lead to human error, many papers may end up in the wrong hands and doing this paperwork is time consuming. A few current systems lack that there is no interaction medium between blood bank and the public to announce the blood donations schedule. The blood donation schedule should be advertised to the public so that they are aware of the blood donation campaign period. Another challenge is that the project is aimed at setting up a donor and patients' information through password protected system, so that no outsiders can see the personal details of the donors or the patients.

3.2. MOTIVATION

- The primary concern of this Blood Bank Management System project is to make a system which will help any blood bank or hospitals to maintain the donors' details, blood groups etc.
- It will take lots of time to maintain the record manually.

3.2. OBJECTIVES

- Provides the searching facilities based on the various factors. Such as Blood, Blood Bank, Blood Group, stock.
- It tracks all the information of donor, blood cells, blood bank etc.
- Manage the information of donors.
- Manage the information of blood.

6.2. CONCLUSION

We have successfully designed and developed a proven website to make it easy for any user or person in need of blood to request the blood they need. Those who wish to donate blood can also register to donate blood on the website. Blood Bank management system will provide an effective way of managing the different types of blood available. It manages all the information about the donors in a systematic way so there is no data redundancy.   Web based blood bank management system provides convenience, efficiency and security to the users and blood bank compared to manual system. It was found out that manual system has many disadvantages that disappoint and dissatisfy the users. Indeed, online blood bank management system make work easy, and ensure fast retrieval of data when needed. The system will eliminate all the problems encountered in the manual way which will help the hospital or the blood banks to work on a better way. The system was implemented using web-based technologies which include HTML, CSS, JS, Bootstrap for frontend and for backend I have used MySQL and PHP.