Project Report: SUB Blood Bank

CSE-0402 Summer 2021

Md. Khaled Saifullah Sadi
UG02-47-18-020
Department of Computer Science and Engineering
State University of Bangladesh (SUB)
Dhaka, Bangladesh
mdsadi4@gmail.com

***Abstract*—SUB Blood Bank is Web-based Blood Donation Management. That enables individuals who want to donate blood to help the needy. It also enables SUB to record and store the data for people who want to communicate with them.**

***Index Terms*—Html,CSS,Boostrap,Php,SQL,Javascript**

I. Introduction

Blood donation is the process of transferring blood from a healthy person to someone who needs it. It "occurs when a person voluntarily has blood drawn and used for transfusions and/or made into biopharmaceutical medications by a process called fractionation."

Blood donation is very important health care and blood is a very unique and precious resource because it only can be obtained from blood donors. Donors participate to save many human beings each year, although some still die or suffer because of the lack of access to a safe blood transfusion (WHO, 2010)

The general idea of the study is to develop a Web-Based Blood Bank to manage the records of the donors and the people who need blood. It educates the public on the benefits of blood donation to motivate them to donate blood for the people who need it. Millions of Saudis need blood transfusions each year, some of them need blood transfusions to replace the blood lost during surgery or after having serious accidents that cause them to lose some of their blood. Others may need blood because of illnesses such as anemia, cancer, bleeding disorders, and disorders of the immune system (NIH, 2012). Doctors may give the person whole blood or part of the blood, depending on the person's condition. Some people need red cells only if they are anemic or if they lost a lot of blood after having a serious accident. For those who are bleeding too much during surgery, they need plasma, and for those who have cancer or bleeding problem, they need platelets (Kids Health, 2012).

II. Proposed Methodology

Project is to maximize access to the information resources required to improve existing teaching and learning practices in education and aims to establish a technologically aware society. There are mainly 2 users in this application admin and general user. The features of this application is work on single module. Some Features are ,

1) Search using Blood Group
2) Search using Depertment
3) Search using Batch Number

After adding department , batch from admin panel , then admin can add doner . Admin can Add or delet any doner. admin can also edit doner. After adding doner . General students can easily find doner from "Find Doner Page". after searching , they find doner name , depertment, batch , address , Students ID. So that one can easily find him/her . Students , Teacher , Stuff every one who related with SUB can use this Blood Bank.

A. Front End Development

Our website's front end was initially hand-coded in JavaScript. This is a client-side scripting language designed specifically for web development. The code was combined with the Hypertext Mark-up Language (HTML) to create a style sheet (CSS) language used for describing the look and formatting of a mark-up language-written document.

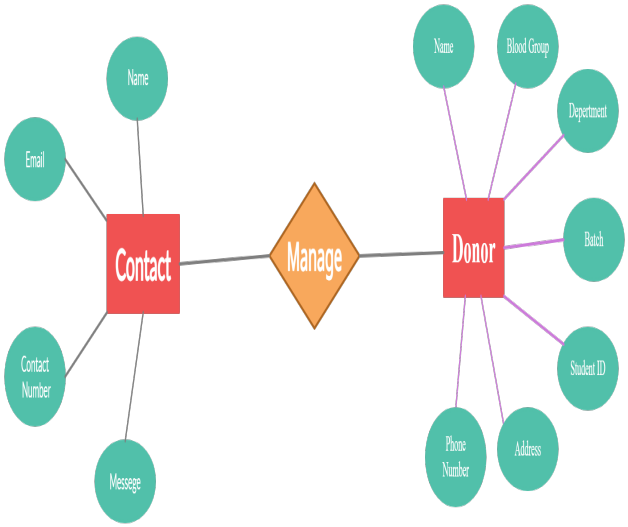
B. Back End Development

The back end is supported by the Database Management System (DBMS). The database management system is essentially software that allows us to create databases, add, delete, alter, and update tables. Tables can store various types of data, such as integers, variable characters, and so on. We chose the MySQL DBMS to hold the database in our application.MySQL is a database management system that uses a relational model. The main reason is that the MySQL development project has made its source code available under the General Public License (GNU), which is an open source web application.

III. Entity Relationship Diagram

An Entity Relationship Diagram is a diagram that represents relationships among entities in a database. It is commonly known as an ER Diagram. An ER Diagram in DBMS plays a crucial role in designing the database. Today's business world previews all the requirements demanded by the users in the

form of an ER Diagram. Later, it's forwarded to the database administrators to design the database.



ER Diagram Of SUB Student Portal

In the following diagram we have two entities "Donor" and "Conatct".Entity has attributes such as Name, Blood Group Depertment, Batch, Student ID, Address and Phone Number

IV. Code

```php
<?php
if(isset($_POST['submit']))
{
$status=1;
$bloodgroup=$_POST['bloodgroup'];


if(isset($_POST['department']) && $_POST['department'] != '' ){
    $department = $_POST['department'];
    $where_dept = " AND department=:department";
}
if(isset($_POST['batch']) && $_POST['batch'] != ''){
    $batch = $_POST['batch'];
    $where_batch = " AND batch=:batch";
}

$sql = "SELECT * from tblblooddonars where (status=:status and BloodGroup
$query = $dbh -> prepare($sql);
$query->bindParam(':status',$status,PDO::PARAM_STR);
$query->bindParam(':bloodgroup',$bloodgroup,PDO::PARAM_STR);
if(isset($_POST['department']) && $_POST['department'] != ''){
    $query->bindParam(':department',$department,PDO::PARAM_STR);
}
if(isset($_POST['batch']) && $_POST['batch'] != ''){
    $query->bindParam(':batch',$batch,PDO::PARAM_STR);
}
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $result)
{ ?>
```

Some Code From SUB Blood Bank

```php
<div class="team-social-icons" style="text-align:left; margin-left:10px;">
<?php
$view_data = (array) $result;
?>
    <p class="card-text"><b>Blood Group :</b> <?php echo htmlentities($result->BloodGroup);?></p>
    <p class="card-text"><b>Department :</b> <?php echo htmlentities($result->department);?></p>
    <p class="card-text"><b>Batch :</b> <?php echo htmlentities($result->batch);?></p>
    <p class="card-text"><b>  ID :</b> <?php echo htmlentities($result->ID);?></p>
    <p class="card-text"><b>Address :</b>
    <?php if($result->Address=="")
    {
    echo htmlentities('N/A');
    } else {
    echo htmlentities($result->Address);
    }
    ?></p>
```

Some Code From SUB Blood Bank

V. Requirements

Language

- *Front-end : HTML, CSS and JavaScript*
- *Back-end : PHP and JavaScript*
- *Database : MySQL*

Framework

- *Front-end : Boostrap*
- *Back-end : phpCoreX*

Environment

- *Apache*
- *MySQL Server*
- *XAMPP*

VI. Conclusion and Future Work

Universally, blood is recognized as the most important element that saves life. It saves countless number of lives across the world in various circumstances. In today's world, where we can do many things from home, just by pressing one click, we can take advantage of that concept by making online solutions for the shortage of blood donors. The management information system helps to reduce the use of paper, so the probability of errors should be minimal. This web-based blood bank is a small contribution to serve mankind. It can save lives by educating the public about the benefits of blood donation, encourage them to donate, and manage the records of donors and people who need blood, to help the people who need blood to find the appropriate donors as soon as possible in quick, perfect, and a safe way – with less effort.

In future , we add more features in this SUB Blood Bank likes finding nearest hospital,finding nearest persion who wants to donet blood,Doner registration System and many more. In future we add all department students in this portal.

Acknowledgment

I would like to thank my honourable **Khan Md. Hasib Sir** for his time, generosity and critical insights into this project.

References

[1] www.rokto.co
[2] www.bloodseek.com
[3] www.bloodbank.org.bd
[4] www.bdbloodinfo.com