

## **Abstract**

The goal of this project is to provide a user-friendly platform for connecting blood donors and receivers and managing blood donations online. Users will be able to register on the site as donors and enter their blood type, contact information, and previous donations. Moreover, patients can register and make a blood request by completing a form and indicating their blood type.

To maintain optimum security, the online blood bank system would use contemporary encryption techniques to store sensitive information like personal and medical details. Additionally, the system will have capabilities like email confirmation and real-time updates for blood requests and available donors. By doing this, recipients will be able to discover donors with blood types similar to their own promptly and receive the blood.

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## **1. Introduction**

In the field of healthcare, the need for an efficient and reliable blood donation management system cannot be overstated. The traditional blood donation process is often marred by challenges such as inadequate blood supplies, difficulty in finding suitable donors, and delayed responses to emergency blood requests. To address these challenges, this project seeks to develop an online blood bank that facilitates blood donations and requests, making it easier for donors and recipients to connect in a safe and secure environment. The online blood bank system will provide a user-friendly interface that allows donors to register, create profiles, and provide their blood type and donation history. Recipients can also create profiles and request blood donations by filling out a request form that specifies their blood type and location. With this system, donors and recipients can easily find compatible blood matches and receive the blood they need in a timely and effective manner.

The system will also provide a dashboard that displays real-time information on the available blood supply and the status of blood requests, enabling users to monitor the blood donation process in real-time. The system will be designed with the latest encryption techniques to store sensitive information such as personal and medical details, ensuring maximum security.

Overall, this project will provide an essential tool for managing blood donations, addressing the challenges associated with traditional blood donation processes. By creating a reliable and efficient online blood bank system, this project will help save lives and improve the quality of healthcare delivery.

## **2. Objectives**

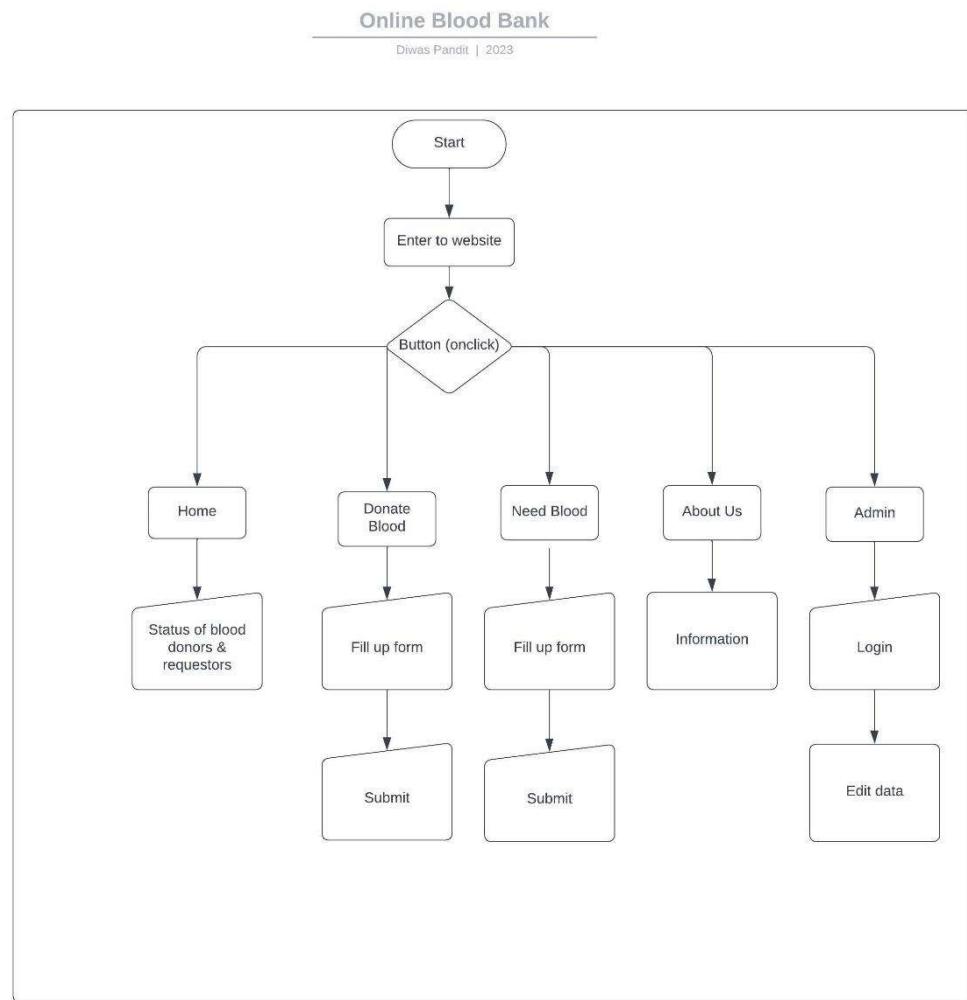
- 1) To provide a clear and detailed explanation of the online blood bank system's purpose and significance in addressing the challenges of blood donation management.
- 2) To describe the system's architecture and technical specifications, including the technologies used, design choices, and security measures implemented.
- 3) To provide a comprehensive guide for users, including step-by-step instructions on how to register, request blood, find donors, and monitor the blood donation process in real-time.
- 4) To document the testing and quality assurance procedures used to ensure the reliability, performance, and security of the system.
- 5) To provide guidance for system administrators, including how to manage user accounts, update the database, and maintain system security

### **3. Methodology**

I have used the following methodology for the completion of the project:

1. HTML (Hypertext Markup Language) is a markup language used for creating and structuring web pages. It can be used to create the user interface for the online blood bank, allowing users to interact with the system through a web browser. HTML is typically used in conjunction with CSS and JavaScript to create dynamic and interactive web pages.
2. PHP: PHP is a server-side scripting language that is commonly used for web development. It can be used to implement the back-end logic for Realtime blood donor and requestor status, and also authentication of admin and data storage.
3. JavaScript: JavaScript is a client-side scripting language that can be used to add interactivity to user interface. It is even used to validate user filled data in form.
4. IDE tool: An Integrated Development Environment (IDE) tool is a software application that provides a comprehensive environment for software development. Examples of popular IDE tools include Visual Studio Code.
5. Database Management System: A database management system (DBMS) is a software application that interacts with databases to store, retrieve, and manipulate data. MySQL, MongoDB, and Oracle are examples of popular DBMS tools.
6. Source Control Management (SCM) tool: A Source Control Management (SCM) tool is used to manage and track changes to the codebase during the development process. Examples of SCM tools include Git, Mercurial, and Subversion.

## 4. System Design



Flowchart: System Design of Online Blood Bank

## 5. Implementation

### 5.1 Source Code

```
index.html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Online Blood bank</title>
<script src="index.js"></script>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body style="background-color:lightgrey">
<h1 style="text-align: center;">Online Blood Bank</h1>
<hr>
<button id="Home" onclick="home()">Home</button>
<button id="Donate Blood" onclick="donate_blood()">Donate Blood</button>
<button id="Need Blood" onclick="need_blood()">Need Blood</button>
<button id="About" onclick="about()">About Us</button>
<button id="Admin" onclick="admin()">Admin</button>
<hr>
<p id="content"></p>
</body>
</html>
```

```
style.css
body {
    background-color: #47baa1;
    font-family: Arial, sans-serif;
    font-size: 14px;
}
button {
    padding: 8px;
    border: none;
    border-radius: 5px;
    font-size: 16px;
    margin-right: 10px;
    margin-bottom: 5px;
    cursor: pointer;
    background-color: #4CAF50;
    color: white;
    width: 150px;
}
button:hover {
    background-color: #e91f1f;
```

```

}

/* for home page */
img {
    /* Set a maximum width of 100% to make the image responsive */
    max-width: 100%;
    /* Add some margin to the top and bottom of the image to create some space */
    margin-top: 10px;
    margin-bottom: 10px;
    /* Add a border to the image */
    border: 1px solid black;
    /* Add some padding around the image */
    padding: 0px;
    /* Center the image horizontally within its container */
    display: block;
    margin-left: auto;
    margin-right: auto;
}
#content {
    font-size: 15px;
    line-height: 1.5;
    width: 100%;
    text-align: justify;
}
h1 {
    font-size: 25px;
    text-align: center;
    color: #e91f1f;
}
hr {
    border: none;
    height: 3px;
    background-color: #0d1f2e;
}
/* #home {
    float: left;
    margin-left: 10px;
}
#admin {
    float: right;
    margin-right: 10px;
} */

/* Center the form on the page */
form {
    margin: 0 auto;
    max-width: 600px;
    padding: 20px;
}

```

```

/* Style the form labels */
label {
    display: block;
    margin-bottom: 5px;
}

/* Style the input fields */
input[type="text"],
input[type="email"],
textarea {
    width: 50%;
    padding: 10px;
    margin-bottom: 15px;
    border-radius: 10px;
    border: 1px solid #ccc;
}

/* Style the submit button */
input[type="submit"] {
    background-color: #4CAF50;
    border: none;
    color: #fff;
    padding: 10px 20px;
    border-radius: 3px;
    cursor: pointer;
}

input[type="submit"]:hover {
    background-color: #3e8e41;
}

```

### index.js

```

function home(){
    document.getElementById("content").innerHTML = "<iframe src='home.php' width='100%' height='450px'></iframe>";
}

function donate_blood(){
    document.getElementById("content").innerHTML = "<iframe src='donate_blood.html' width='100%' height='600px'></iframe>";
}

function need_blood(){
    document.getElementById("content").innerHTML = "<iframe src='need_blood.html' width='100%' height='600px'></iframe>";
}

function contact_us(){
    document.getElementById("content").innerHTML = "<iframe src='contact_us.html' width='100%' height='525px'></iframe>";
}

function about(){

```

```

        document.getElementById("content").innerHTML = "<iframe src='about.html' width='100%' height='600px'></iframe>";
    }
    function admin(){
        document.getElementById("content").innerHTML = "<iframe src='admin.html' width='100%' height='525px'></iframe>";
    }

```

home.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Home</title>
    <link rel="stylesheet" type="text/css" href="home.css">
<!-- ##### -->
<!-- Php for connection to donar table in database -->
<?php
$host="localhost";
$dname="blood_bank";
$pass="";
$username="root";
// create connection to mysql
$connection=mysqli_connect($host,$username,$pass,$dname);
//check whether connection is established or not
if(!$connection){
    echo "connection failed".mysqli_error();
}
// array of blood types to query
$bloodTypes = ['A+', 'A-', 'B+', 'B-', 'AB+', 'AB-', 'O+', 'O-'];
// loop through blood types and execute query for each one
foreach ($bloodTypes as $type) {
    $sql = "SELECT COUNT(*) AS count FROM donar WHERE blood = '$type'";
    $result = mysqli_query($connection, $sql);
    if (!$result) {
        die("Query failed: " . mysqli_error($connection));
    }
    $row = mysqli_fetch_assoc($result);
    $count = $row['count'];
    $counts[$type] = $count;
}
// assign the count of each blood type to a separate variable
$countAplus = $counts['A+'];
$countAminus = $counts['A-'];
$countBplus = $counts['B+'];
$countBminus = $counts['B-'];

```

```

$countABplus = $counts['AB+'];
$countABminus = $counts['AB-'];
$countOplus = $counts['O+'];
$countOminus = $counts['O-'];
// close the database connection
mysqli_close($connection);
?>
<!-- ##### -->
<!-- Php for connection to requestor table in database -->
<?php
$host="localhost";
$dname="blood_bank";
$pass="";
$username="root";
// create connection to mysql
$connection=mysqli_connect($host,$username,$pass,$dname);
//check whether connection is established or not
if(!$connection){
    echo "connection failed".mysqli_error();
}
// array of blood types to query
$bloodTypes = ['A+', 'A-', 'B+', 'B-', 'AB+', 'AB-', 'O+', 'O-'];
// loop through blood types and execute query for each one
foreach ($bloodTypes as $type) {
    $sql = "SELECT COUNT(*) AS count FROM requestor WHERE blood = '$type'";
    $result = mysqli_query($connection, $sql);
    if (!$result) {
        die("Query failed: " . mysqli_error($connection));
    }
    $row = mysqli_fetch_assoc($result);
    $request = $row['count'];
    $requests[$type] = $request;
}
// assign the count of each blood type to a separate variable
$requestAplus = $requests['A+'];
$requestAminus = $requests['A-'];
$requestBplus = $requests['B+'];
$requestBminus = $requests['B-'];
$requestABplus = $requests['AB+'];
$requestABminus = $requests['AB-'];
$requestOplus = $requests['O+'];
$requestOminus = $requests['O-']
// close the database connection
mysqli_close($connection);
?>
<!-- ##### -->
</head>
<body>
```

```

<div class="row">
  <div class="column">
    <div class="card">
      <h1>A+</h1>
      <p>No. of donors:<?php echo $countAplus;?> </p>
      <p>No. of request: <?php echo $requestAplus;?></p>
    </div>
  </div>
  <div class="column">
    <div class="card">
      <h1>A-</h1>
      <p>No. of donors:<?php echo $countAminus;?> </p>
      <p>No. of request:<?php echo $requestAminus;?> </p>
    </div>
  </div>
  <div class="column">
    <div class="card">
      <h1>B+</h1>
      <p>No. of donors:<?php echo $countBplus;?> </p>
      <p>No. of request:<?php echo $requestBplus;?> </p>
    </div>
  </div>
  <div class="column">
    <div class="card">
      <h1>B-</h1>
      <p>No. of donors: <?php echo $countBminus;?></p>
      <p>No. of request:<?php echo $requestBminus;?> </p>
    </div>
  </div>
</div>
<div class="row">
  <div class="column">
    <div class="card">
      <h1>AB+</h1>
      <p>No. of donors:<?php echo $countABplus;?> </p>
      <p>No. of request: <?php echo $requestABplus;?></p>
    </div>
  </div>
  <div class="column">
    <div class="card">
      <h1>AB-</h1>
      <p>No. of donors:<?php echo $countABminus;?> </p>
      <p>No. of request:<?php echo $requestABminus;?> </p>
    </div>
  </div>
</div>
<div class="column">
  <div class="card">
    <h1>O+</h1>

```

```

<p>No. of donors:<?php echo $countOplus;?> </p>
<p>No. of request: <?php echo $requestOplus;?></p>
</div>
</div>
<div class="column">
<div class="card">
<h1>O-</h1>
<p>No. of donors:<?php echo $countOminus;?> </p>
<p>No. of request:<?php echo $requestOminus;?> </p>
</div>
</div>
</div>
</body>
</html>

```

### home.css

```

/* Set the background color */
body {
    background-color: #47baa1;
}
/* Style the row and column containers */
.row {
    display: flex;
    flex-wrap: wrap;
    justify-content: space-around;
    margin: 20px 0;
}
.column {
    flex-basis: calc(25% - 20px);
    margin: 10px;
}
/* Style the cards */
.card {
    text-align: center;
    border: 2px solid #cf5050;
    border-radius: 10px;
    padding: 10px;
    background-color: #fff;
    box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);
}
/* Style the images */
.card img {
    width: 100%;
    height: auto;
    border-radius: 50%;
    margin-bottom: 10px;
}
/* Style the names */

```

```

.card h3 {
    font-size: 18px;
    margin-bottom: 5px;
    color: #333;
}
/* Style the statuses */
.card p {
    font-size: 14px;
    color: #999;
}

donate_blood.html
<!DOCTYPE html>
<html>
<head>
    <title>Donate Blood</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
    <form name="donate" action="donate_blood.php" method="post">
        <h3>Fill the form to donate blood</h3>
        <div>
            <label for="fullname">Full Name</label>
            <input type="text" id="fullname" name="fullname" required>
        </div>
        <div>
            <label for="mobileno">Mobile Number</label>
            <input type="text" id="mobileno" name="mobileno" min="10" max="10"
required>
        </div>
        <div>
            <label for="emailid">Email Id</label>
            <input type="email" id="emailid" name="emailid">
        </div>
        <div>
            <label for="age">Age</label>
            <input type="text" id="age" name="age" required>
        </div>
        <div>
            <label for="gender">Gender</label>
            <select id="gender" name="gender" required>
                <option value="">Select</option>
                <option value="Male">Male</option>
                <option value="Female">Female</option>
            </select>
        </div>
        <br>
        <div>

```

```

<label for="blood">Blood Group</label>
<select id="blood_group" name="blood_group" required>
    <option value="A+">A+</option>
    <option value="A->">A-</option>
    <option value="B+">B+</option>
    <option value="B->">B-</option>
    <option value="AB+">AB+</option>
    <option value="AB->">AB-</option>
    <option value="O+">O+</option>
    <option value="O->">O-</option>
</select>
</div>
<br>
<div>
    <label for="address">Address</label>
    <textarea id="address" name="address" required></textarea>
</div>
<script type="text/javascript">
const form = document.querySelector('form[name="donate"]');
form.addEventListener('submit', function (event) {
    // Calling validation function here
    const isValid = check();
    // If validation fails, prevent the form from being submitted
    if (!isValid) {
        event.preventDefault();
    }
});

function check() {
    var fullname = document.getElementById("fullname").value;
    var mobileno = parseInt(document.getElementById("mobileno").value);
    var emailid = document.getElementById("emailid").value;
    var age = document.getElementById("age").value;
    var address = document.getElementById("address").value;
    if (fullname !== "" && emailid !== "" && mobileno !== "" &&
        age !== "" && address !== "") {
        if (mobileno.toString().length !== 10) {
            alert("Mobile number must be 10 digits");
            return false; // validation failed
        }
    } else {
        alert("All fields are required");
        return false; // validation failed
    }
    // If all validation checks pass, return true
    return true;
}

```

```

</script>
<div>
    <input type="submit" name="submit" onclick="check()" value="submit"
style="cursor:pointer">
</div>
</form>
</body>
</html>

                                donate_blood.php

<?php
$host="localhost";
$dname="blood_bank";
$pass="";
$username="root";
// create connection to mysql
$connection=mysqli_connect($host,$username,$pass,$dname);
//check whether connection is established or not
if(!$connection){
    echo "connection failed".mysqli_error();
}
else{
    // accepting data once the user click the submit button=====
    if(isset($_POST["submit"])){
        $fullname=$_POST['fullname'];
        $mobileno=$_POST['mobileno'];
        $emailid=$_POST['emailid'];
        $age=$_POST['age'];
        $gender=$_POST['gender'];
        $blood_group=$_POST['blood_group'];
        $address=$_POST['address'];
        // create a variable to store the data collected from to be sent to database
        $sql = "INSERT INTO donar (fullname,mobileno,emailid,age,gender,blood,address)
        VALUES ('$fullname', '$mobileno', '$emailid', '$age', '$gender', '$blood_group',
'$address')";
        // sending to database
        if(mysqli_query($connection, $sql)){
            echo "Thank you for registering as a donar";
        }else {
            echo "Error: " . $sql . "<br>" . mysqli_error($connection);
        }
    }
    mysqli_close($connection);
}
?>

```

## need\_blood.html

```
<!DOCTYPE html>
<html>
<head>
    <title>Donate Blood</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
    <form name="need" action="need_blood.php" method="post">
        <h3>Fill the form to Request blood</h3>
        <div>
            <label for="fullname">Full Name</label>
            <input type="text" id="fullname" name="fullname" required>
        </div>
        <div>
            <label for="mobileno">Mobile Number</label>
            <input type="text" id="mobileno" name="mobileno" min="10" max="10" required>
        </div>
        <div>
            <label for="emailid">Email Id</label>
            <input type="email" id="emailid" name="emailid">
        </div>
        <div>
            <label for="age">Age</label>
            <input type="text" id="age" name="age" required>
        </div>
        <div>
            <label for="gender">Gender</label>
            <select id="gender" name="gender" required>
                <option value="">Select</option>
                <option value="Male">Male</option>
                <option value="Female">Female</option>
            </select>
        </div>
        <br>
        <div>
            <label for="blood">Blood Group</label>
            <select id="blood_group" name="blood_group" required>
                <option value="A+">A+</option>
                <option value="A-">A-</option>
                <option value="B+">B+</option>
                <option value="B-">B-</option>
                <option value="AB+">AB+</option>
                <option value="AB-">AB-</option>
                <option value="O+">O+</option>
                <option value="O-">O-</option>
            </select>
        </div>
    </form>
</body>
```

```

</div>
<br>
<div>
    <label for="address">Address</label>
    <textarea id="address" name="address" required></textarea>
</div>
<script type="text/javascript">
    const form = document.querySelector('form[name="need"]');
    form.addEventListener('submit', function (event) {
        // Calling validation function here
        const isValid = check();
        // If validation fails, prevent the form from being submitted
        if (!isValid) {
            event.preventDefault();
        }
    });
    function check() {
        var fullname = document.getElementById("fullname").value;
        var mobileno = parseInt(document.getElementById("mobileno").value);
        var emailid = document.getElementById("emailid").value;
        var age = document.getElementById("age").value;
        var address = document.getElementById("address").value;
        if (fullname !== "" && emailid !== "" && mobileno !== "" &&
            age !== "" && address !== "") {
            if (mobileno.toString().length !== 10) {
                alert("Mobile number must be 10 digits");
                return false; // validation failed
            }
        } else {
            alert("All fields are required");
            return false; // validation failed
        }
        // If all validation checks pass, return true
        return true;
    }
</script>
<div>
    <input type="submit" name="submit" onclick="check()" value="submit"
style="cursor:pointer">
</div>
</form>
</body>
</html>

```

need\_blood.php

```

<?php
$host="localhost";
$dname="blood_bank";

```

```

$pass="";
$username="root";
// create connection to mysql
$connection=mysqli_connect($host,$username,$pass,$dbname);
//check whether connection is established or not
if(!$connection){
    echo "connection failed".mysqli_error();
}
else{
    //== accepting data once the user click the submit button=====
    if(isset($_POST["submit"])){
        $fullname=$_POST['fullname'];
        $mobileno=$_POST['mobileno'];
        $emailid=$_POST['emailid'];
        $age=$_POST['age'];
        $gender=$_POST['gender'];
        $blood_group=$_POST['blood_group'];
        $address=$_POST['address'];
        // create a variable to store the data collected from to be sent to database
        $sql = "INSERT INTO requestor
(fullname,mobileno,emailid,age,gender,blood,address)
VALUES ('$fullname', '$mobileno', '$emailid', '$age', '$gender', '$blood_group',
'$address')";
        // sending to database
        if(mysqli_query($connection, $sql)){
            echo "Your request has been submitted. We will contact you on your phone
number.";
        }
        else {
            echo "Error: " . $sql . "<br>" . mysqli_error($connection);
        }
    }
    mysqli_close($connection);
}
?>

```

### about.html

```

<!DOCTYPE html>
<html>
<head>
    <title>About Our Blood Bank</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
    <header>
        <h1>About Our Blood Bank</h1>
    </header>
    <main>
        <section>

```

```

<h2>Our Mission</h2>
<p>Our mission is to provide a safe and reliable supply of blood products to hospitals and healthcare facilities in our community.</p>
</section>
<section>
    <h2>Our History</h2>
    <p>Our blood bank was founded in 2023 by Diwas Pandit who recognized the need for a reliable blood supply. Since then, we have grown to become one of the largest blood banks in the region.</p>
</section>
<section>
    <h2>Our Donors</h2>
    <p>We rely on the generosity of our donors to provide the blood products that our community needs. Donating blood is a simple and safe way to make a difference in someone's life.</p>
    <p>To learn more about donating blood, please visit our <a href="donate_blood.html">donate</a> page.</p>
</section>
<section>
    <h2>Contact Us</h2>
    <p><br>Kathmandu, Nepal 12345<br>Phone: 555-123-4567<br>Email: info@ourbloodbank.com</p>
</section>
</main>
</body>
</html>

```

admin.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
    <center>
        <form onsubmit="admin(); return false;">
            <label for="username">Username:</label>
            <input type="text" id="username" name="username"><br>
            <label for="password">Password:</label>
            <input type="password" id="password" name="password"><br>
            <input type="submit" value="Submit">
        </form>
        <script type="text/javascript">
            function admin() {

```

```

var user = document.getElementById("username").value;
var pass = document.getElementById("password").value;
if (user === "diwas" && pass === "hello") {
    window.location.href = "admin.php";
} else {
    alert("Invalid login credentials. Please try again.");
}
}
</script>
</center>
</body>
</html>

```

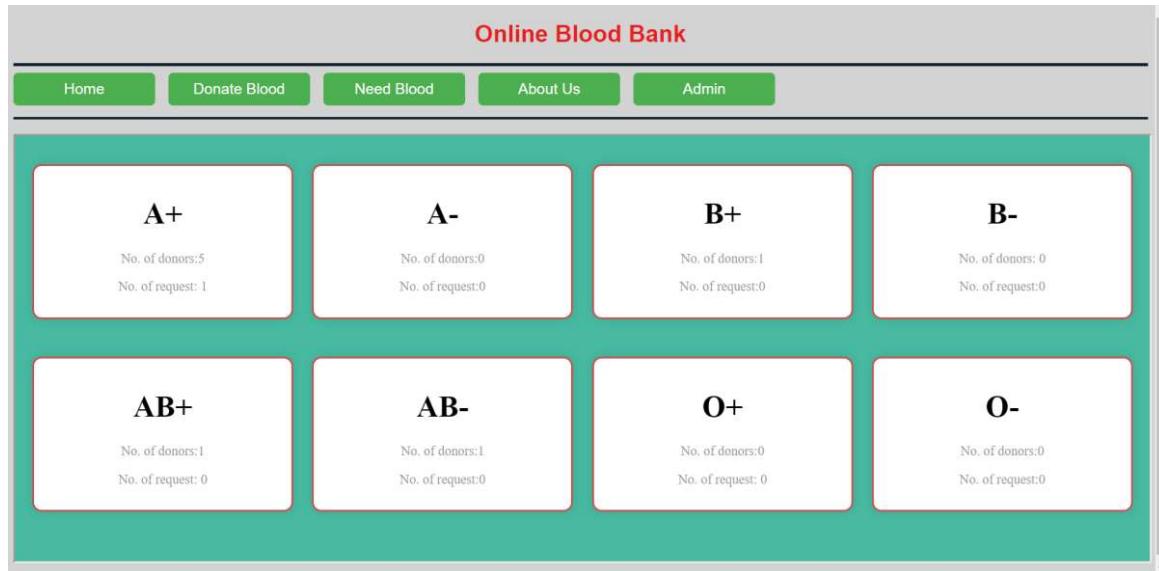
```

admin.php
<?php
    echo "<center><h2>Welcome to Admin Panel</h2></center>";
?>

```

## 5.2 Screenshots

Home Page



## Donate Blood Page

The screenshot shows a web page titled "Online Blood Bank". At the top, there is a navigation bar with five buttons: "Home" (green), "Donate Blood" (red, currently selected), "Need Blood" (green), "About Us" (green), and "Admin" (green). Below the navigation bar, the main content area has a teal background. It contains a form titled "Fill the form to donate blood". The form fields include: "Full Name" (text input), "Mobile Number" (text input), "Email Id" (text input), "Age" (text input), "Gender" (dropdown menu with "Select" option), "Blood Group" (dropdown menu with "A+" option), and "Address" (text input). A green "submit" button is located at the bottom right of the form.

## Need Blood Page (in mobile view)

The screenshot shows a mobile view of the "Online Blood Bank" website. At the top, the status bar indicates "Pixel 5" with dimensions "393 x 851" and a zoom level of "78%". Below the status bar is a black header bar. The main content area has a teal background. It contains a form titled "Fill the form to Request blood". The form fields are identical to the "Donate Blood" page: "Full Name" (text input), "Mobile Number" (text input), "Email Id" (text input), "Age" (text input), "Gender" (dropdown menu with "Select" option), "Blood Group" (dropdown menu with "A+" option), and "Address" (text input). A green "submit" button is located at the bottom right of the form. The navigation bar at the top includes "Home" (green), "Donate Blood" (red), "Need Blood" (red, currently selected), "About Us" (green), and "Admin" (green).

## About Us Page

A screenshot of a web browser window titled "Online Blood bank" showing the "About Us" page. The page has a green header bar with the title "Online Blood Bank" and a navigation menu with buttons for "Home", "Donate Blood", "Need Blood", "About Us", and "Admin". The main content area is teal and contains sections for "Our Mission", "Our History", "Our Donors", and "Contact Us". It also includes contact information: Kathmandu, Nepal 12345, Phone: 555-123-4567, Email: info@ourbloodbank.com. The browser's taskbar at the bottom shows various open tabs and system icons.

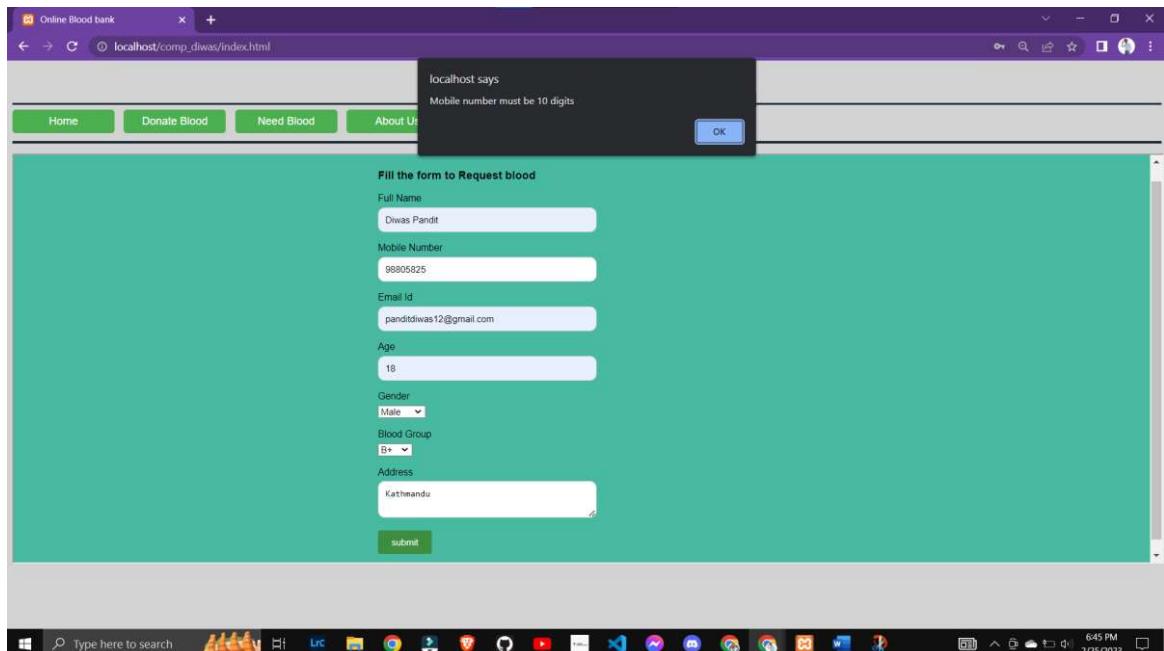
## Admin Login

A screenshot of a web browser window titled "Online Blood Bank" showing the "Admin" login page. The page has a green header bar with the title "Online Blood Bank" and a navigation menu with buttons for "Home", "Donate Blood", "Need Blood", "About Us", and "Admin". The main content area is teal and contains a form for entering a username and password. The "Username:" field contains "diwas" and the "Password:" field contains "\*\*\*\*\*". A "Submit" button is located below the password field. The browser's taskbar at the bottom shows various open tabs and system icons.

When admin login is successful

A screenshot of a web browser window titled "Online Blood Bank" showing the "Welcome to Admin Panel" page. The page has a green header bar with the title "Online Blood Bank" and a navigation menu with buttons for "Home", "Donate Blood", "Need Blood", "About Us", and "Admin". The main content area is teal and displays the message "Welcome to Admin Panel". The browser's taskbar at the bottom shows various open tabs and system icons.

## Form Validation



Database Table: Donar

sr	fullname	mobilenr	emailid	age	gender	blood	address
1	Divas Pandit	2147483647	panditdivas12@gmail.com	18	Male	KATHMANDU	
2	Dipesh Pandit	2147483647	panditdipesh12@gmail.com	18	Male	B+	Simara
3	Deepika	98451305	divas@gmail.com	13	Female	A+	sdfsd
4	Deepika	98451305	divas@gmail.com	18	Male	AB+	sdfsd
5	Deepika	0	divas@gmail.com	13	Male	A+	sdfsd
6	Divas Pandit	98451305	panditdivas12@gmail.com	13	Female	A+	sdfsd
7	Divas Pandit	2147483647	panditdivas12@gmail.com	13	Female	A+	sdfsd
8	Dipesh Pandit	9845130569	panditdivas12@gmail.com	13	Female	A+	456
9	Divas Pandit	9845130560	panditdivas12@gmail.com	13	Male	AB-	456

Database Table: Requestor

sr	fullname	mobilenr	emailid	age	gender	blood	address
1	Deepika	9845130560	divas@gmail.com	18	Female	A+	456

## **Conclusion**

In conclusion, the online blood bank project aimed to create a platform that facilitates blood donation, inventory management, and appointment scheduling. The project followed a systematic approach that involved defining goals, conducting research, identifying stakeholders, designing the system architecture, developing the system, testing, deploying, and maintaining it. Various technologies and tools such as HTML, CSS, JavaScript, PHP, database management system, and source control management tool were employed during the development process.

If this project is implemented successfully, it will offer a reliable and efficient method of blood donation, inventory management, and appointment scheduling for donors, recipients, medical professionals, and blood banks. The system's user-friendly interface and secure database management system will ensure the privacy and security of sensitive user data. Moreover, the system will be scalable, maintainable, and adaptable to changing requirements.

The online blood bank project is a significant contribution to the healthcare industry and has the potential to impact countless lives positively. It provides a convenient and safe method for blood donation and inventory management, facilitating the work of medical professionals and ensuring that blood is available for those in need. The project can be customized to meet the unique needs of various organizations and blood banks, making it a valuable tool for the healthcare sector.

## **Limitation and Recommendation**

1. Scalability: As the number of users and donations increases, the online blood bank system may face challenges in handling the increased demand. To ensure scalability, the system should be regularly tested and optimized to handle a high volume of users and donations. The system should also be designed to accommodate future growth and expansion.
2. Security: Due to the sensitive nature of medical data, ensuring the security of the online blood bank system is critical. The system must be regularly updated and undergo security audits to identify and mitigate any vulnerabilities or security flaws. The data should be encrypted during transmission and storage to prevent unauthorized access.
3. User Experience: To encourage more people to donate blood and ensure that the online blood bank is accessible to all, the system's user interface should be intuitive, user-friendly, and accessible. The system should also provide detailed information about the donation process, eligibility criteria, and any other relevant information.
4. Integration with other systems: To maximize the effectiveness of the online blood bank system, it should be integrated with other healthcare systems, such as hospital information systems and electronic health records. This integration will improve the efficiency of blood transfusion and enable the timely identification of compatible donors.

## References

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