Blood Unity

Project By:

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ABSTRACT

With the increasing of the population and revolution of the new technologies, Blood Unity management plays an important role in the blood unity as blood is the necessity to everyone. This proposed system of the Blood Unity is a web-based system intends to simplify and automate the process of searching for blood in case of emergency and maintain the records of blood donors, recipients, blood donation programs and blood stocks in the bank. Through the manual system of keeping the blood donation records, it is quite difficult to maintain the details of the donors and their donations as reference because the data can be lost or redundant. In case of critical blood demand in one time, broadcasting the message should be done to all donors with the respected blood group. The proposed of Blood Unity helps the people who are in need of a blood by giving them all details of blood group availability or regarding the donors with the same blood group. A blood unity needs to maintain almost hundred of records every day and therefore with computer system it can become more fast and accurate. It will also enable to search the details when required. The proposed project is an ultimate solution of the problem regarding collection, storage and usage of blood in a blood unity. It makes the blood donation and withdrawing system go through a scientific and systematic way. Using this system, one can inquire the availability of blood type and amount in a bood unity easily.

ACKNOWLEDGEMENT

We are very glad to present this project "Blood Unity"

We take this opportunity to express our gratitude to many people, whose good wishes and positive approach have inspired us to take this project as success. However, it is imperative for us to mention some of them who played significant role in my project.

DECLARATION

We here by declaring that the project entitled**, " Blood Unity**" has not been any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other   university.

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INTRODUCTION

The project **Blood Unity** system is designed for the blood bank to gather blood from various sources and distribute it. The Software is designed to handle the daily transaction of the blood unity and search the details when required. It also helps to register the details of donors, blood collection details as well as blood issued reports. The software application is designed in such a manner that it can suit the needs of all the blood unity requirements in the course of future. It will help us to find the blood group with its most efficient time to take care of the blood and it is more easy to hand over the blood to the hospital to help people to get blood on time.

This all things is been stored and been seen in this blood unity. Blood Unity is a browser based solution that is designed to store, process, retrieve and analyze information concerned with the administrative, inventory management and clinical aspects of providing services within a blood unity.

The application allows the users to store the donor details in the application itself. Any subsequent donations made by the same donor automatically got linked up with the same identification number.

System allows the user to store physical and medical details of the donor at the time of the registration which could later on be edited during the time of subsequent donations. Application also allows the users to check the eligibility criteria of the donors for making donations, depending on which a track of the referred donors can be kept for the future referrals.

Features & functionality of the
Blood Unity website

There are three main actors of the application who will interact directly with the application. **Admin**, **Donors, User.**

Admin:

Admin can manage both donors & users. He can add or remove any user from the system. Each member in a donor & user is given a user id and password, which identifies him uniquely. From admin module use can change donor details, delete donor or change the password.

1. · Change Password

2. · Modify donor details

3. · Delete donor details

4. Handle blood requests.

Donor:

Each member in a donor & user is given a user id and password, which identifies him uniquely. Every registered donor has some option which will be showing in their account.

1. Login
2. Update your information
3. Delete account
4. Log Out.

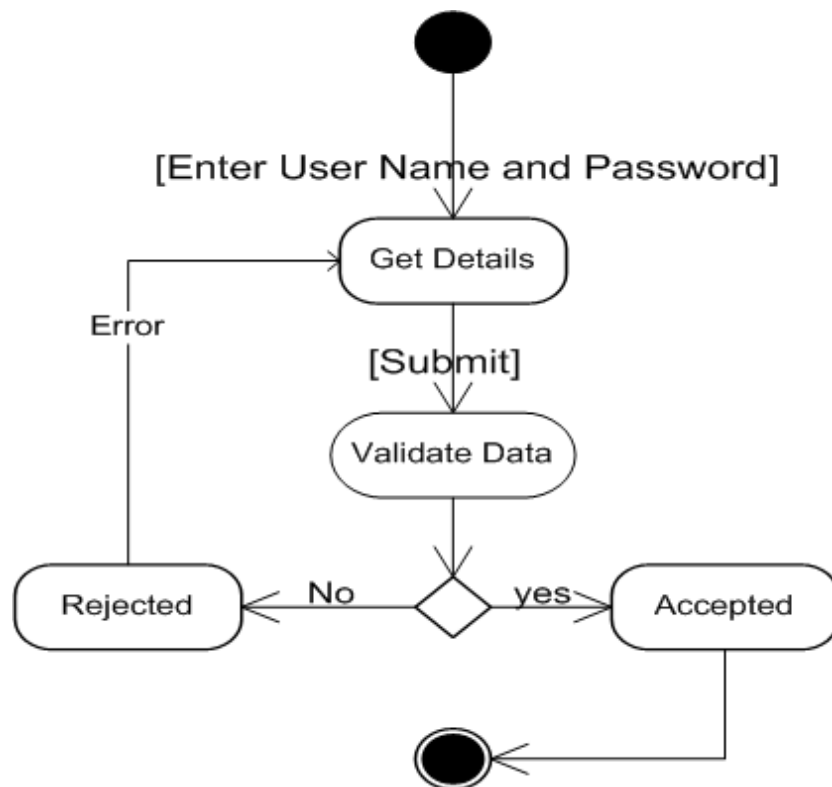# Used Tools and Technologies

Technology/Domain: Java
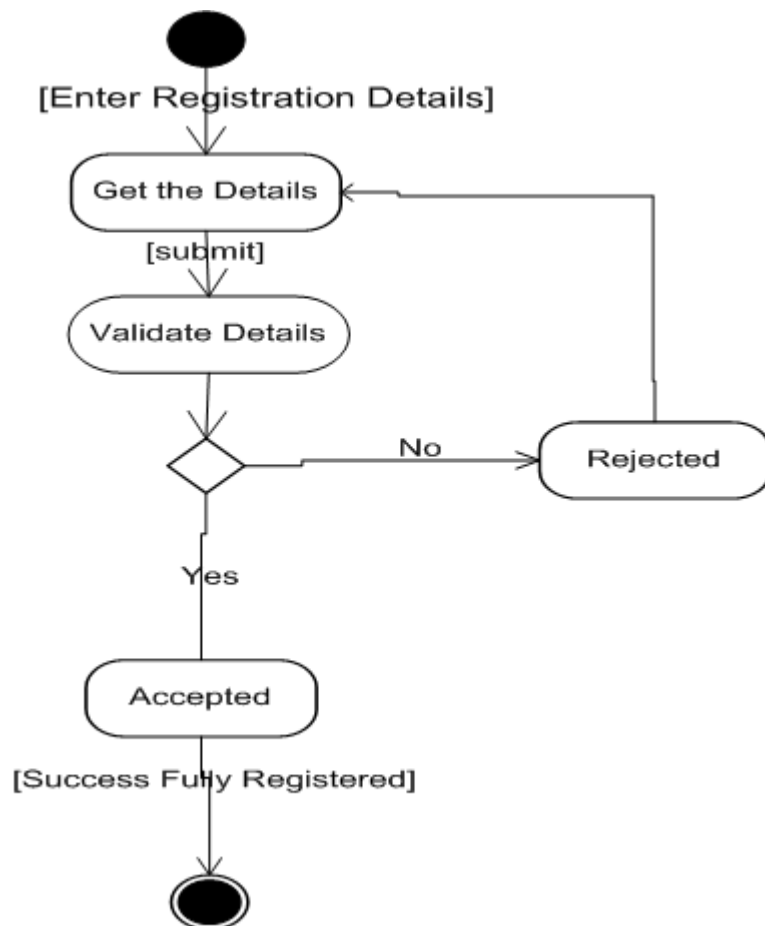**Front-End:**, Angular
Back-end: JAVA Springboot

DIAGRAMS FOR BLOOD UNITY WEBSITE PROJECT

LOGIN ACTIVITY DIAGRAM:

REGISTRATION ACTIVITY DIAGRAM:

ADMIN ACTIVITY DIAGRAM:
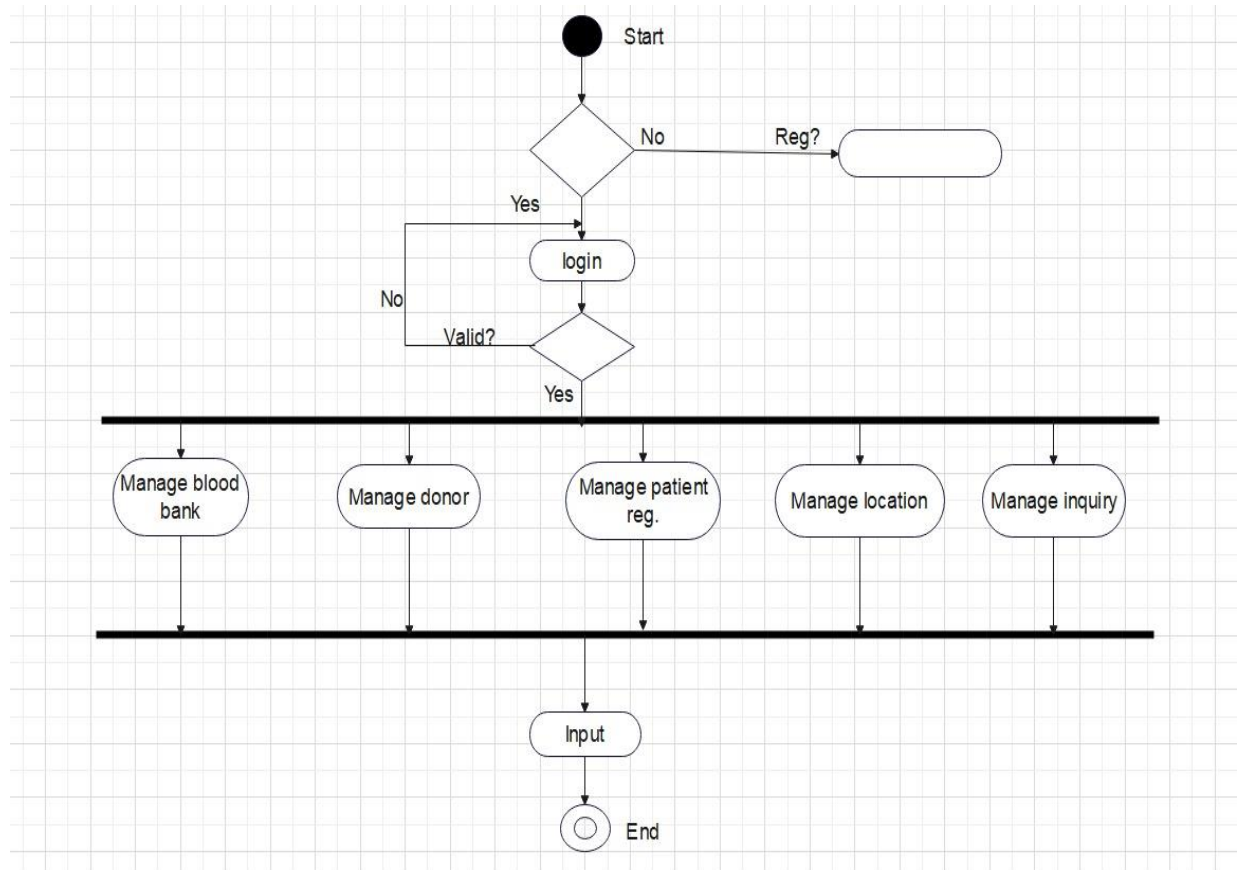
DONAR ACTIVITY DIAGRAM:
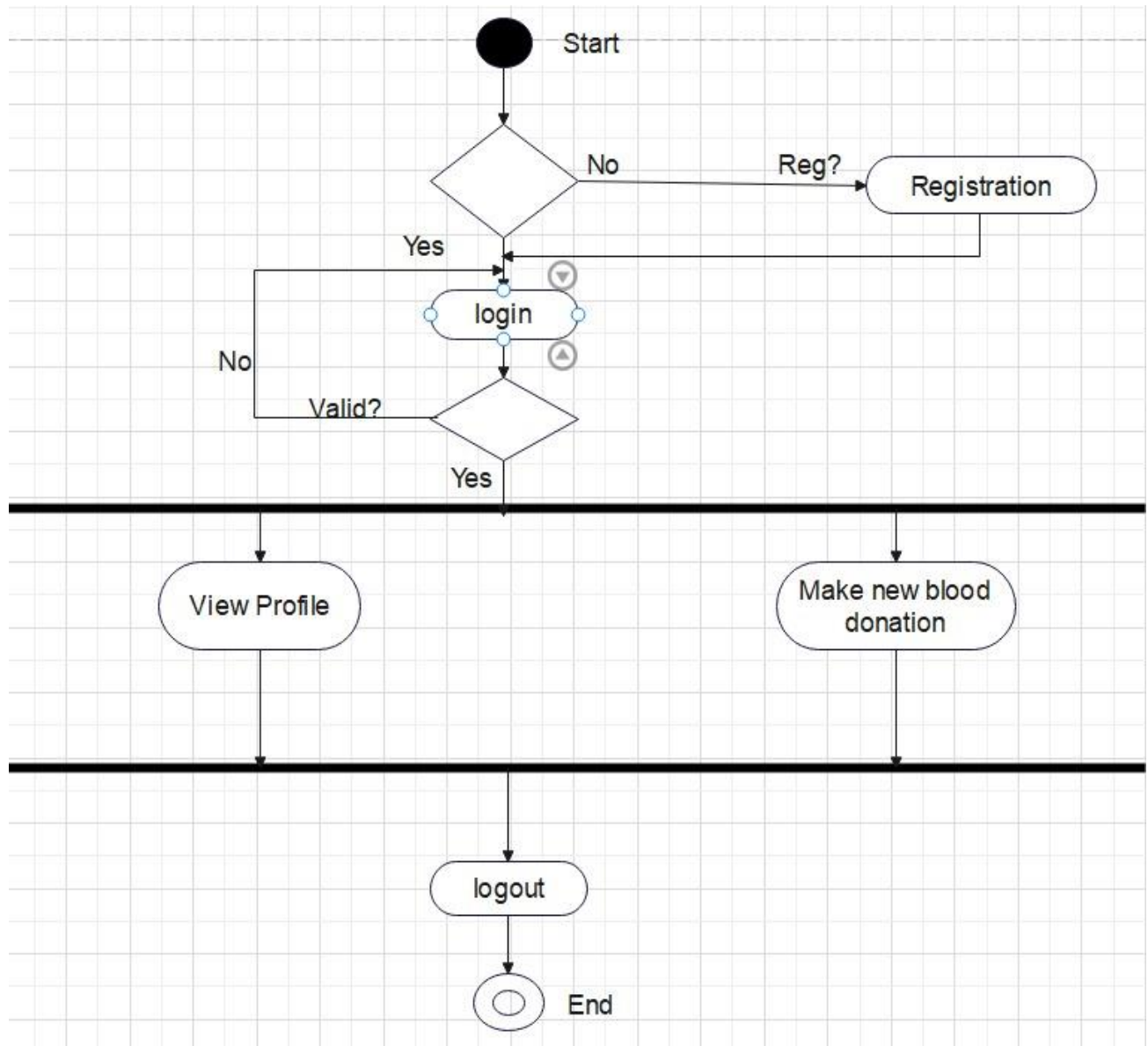
USER ACTIVITY DIAGRAM:
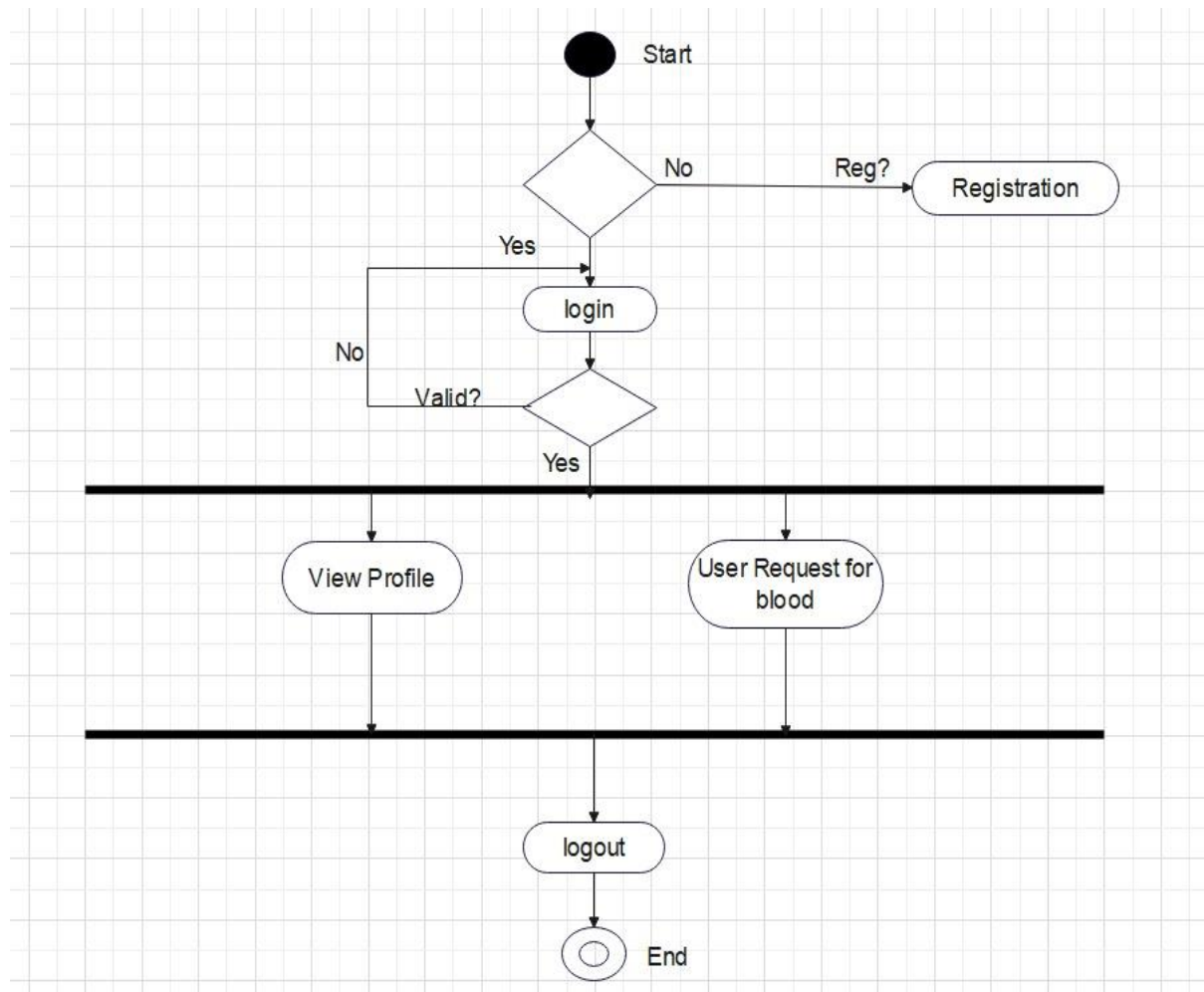
DESIGN AND IMPLEMENTATION OF BLOOD UNITY
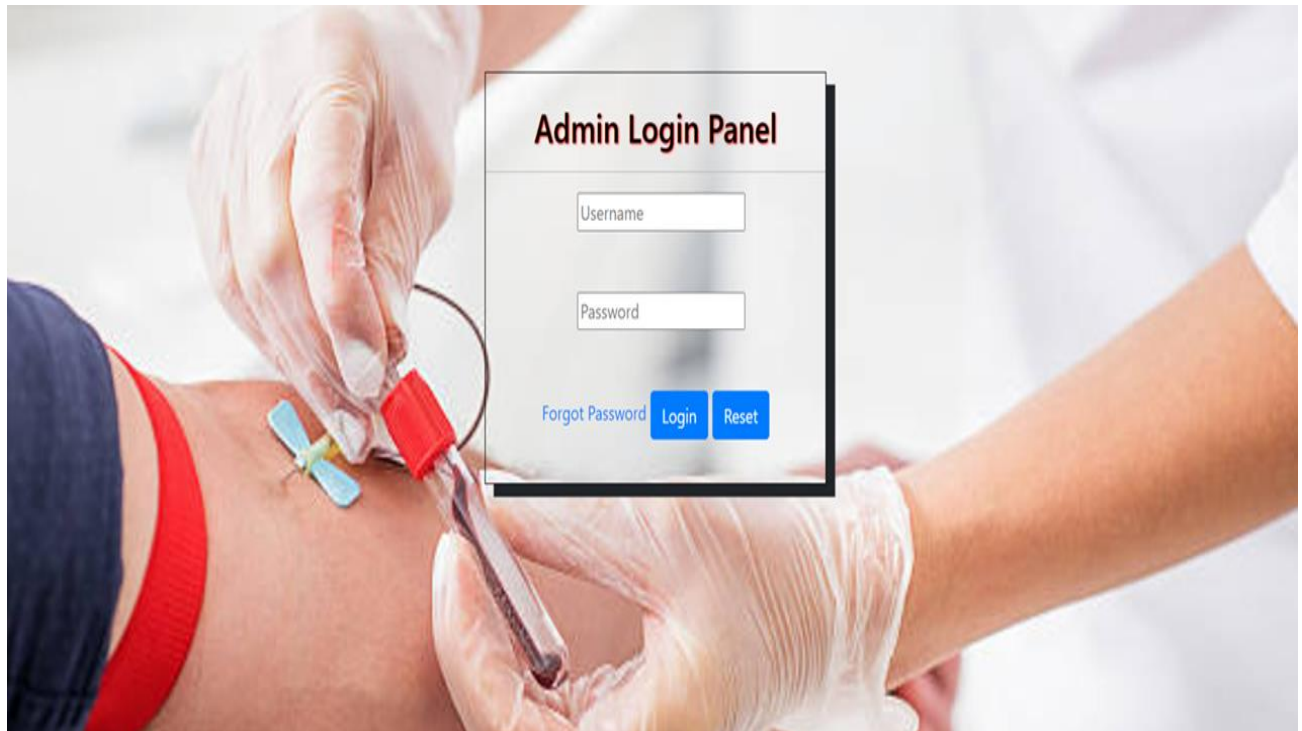
Nature Blood Bank   Home   Contact Us   Login

Contact

🏠 Address

Nature Blood Bank (NBB)

9th Floor, Chanderlok Building
36, Janpath, New Delhi - 110001, India

📞 Call us at

011-43509999, 011-23731778

✉ Write us at

valapkara@gmail.com

Write your queries to us

Name :

[Name]

Email :

[Email]

Mobile No. :

[Mobile No.]

Message to Us :

[   ]

Submit

SOURCE CODE:

```
1   <div class="container">
2     <div class="row justify-content-center">
3       <div class="col-md-5">
4           <div class="card card-1">
5             <img class="logo" width="150" height="50" src="../../../assets/c.png">
6               <div class="card-body">
7                   <nav class="navbar nav navbar-expand-lg">
8                       <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarTogglerDemo03" aria-controls="navbarTog
9                         <span class="navbar-toggler-icon"></span>
10                      </button>
11                      <a class="navbar-brand" href="#"></a>
12
13                      <div class="collapse navbar-collapse" id="navbarTogglerDemo03">
14                        <ul class="navbar-nav mr-auto mt-2 mt-lg-0">
15                          <li class="nav-item">
16                            <a class="nav-link link active" style="color:■white;" href="javascript:;;" routerLink="/home" >{{ this.translate.data["H
17                          </li>
18                          <li class="nav-item">
19                            <a class="nav-link" href="#"  routerLink="/about">{{ this.translate.data["ABOUT US"] | translate }}</a>
20                          </li>
21                          <li class="nav-item">
22                            <a class="nav-link" href="#"  routerLink="/donorlist">{{ this.translate.data["DONOR LIST"] | translate }}</a>
23                          </li>
24                          <li class="nav-item">
25                            <a class="nav-link" href="#"  routerLink="/contact">{{ this.translate.data["CONTACT US"] | translate }}</a>
26                          </li>
27                          <li class="nav-item dropdown">
28                            <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown" role="button" data-toggle="dropdown" aria-haspopup="
29                              <i class="fa fa-globe"></i><span class="caret"></span>
30                            </a>
31                            <div class="dropdown-menu" aria-labelledby="navbarDropdown">
32                              <a style="color:■grey" class="dropdown-item" href="javascript:;;" (click)="setLang('en')">
33                                <i class="fa fa-flag-o mr-2"></i>
34                                English (en)</a>
35                              <div class="dropdown-divider"></div>
36                              <a  style="color:■grey"  class="dropdown-item" href="javascript:;;" (click)="setLang('fr')">
37                                <i class="fa fa-flag-o mr-2"></i>
38                                French (fr)</a>
39                              <div class="dropdown-divider"></div>
```

17

```
div.card-body > ⊘ nav.navbar.nav.navbar-expand-lg > ⊘ div#navbarTogglerDemo03.collapse.navbar-collapse > ⊘ ul.navbar-nav.mr-auto.mt-2.mt-lg-0 > ⊘ li.nav-item.dropdown > ⊘ div.dropdown-menu > ⊘
```

```html
38                          French (fr)</a>
39                      <div class="dropdown-divider"></div>
40                      <a  style="color:▉grey"  class="dropdown-item" href="javascript:;;" (click)="setLang('fa')">
41                          <i class="fa fa-flag-o mr-2"></i>
42                       Persian (fa)</a>
43                      <div class="dropdown-divider"></div>
44                      <a  style="color:▉grey"  class="dropdown-item" href="javascript:;;" (click)="setLang('ja')">
45                          <i class="fa fa-flag-o mr-2"></i>
46                       Japanese (ja)</a>
47                      <div class="dropdown-divider"></div>
48                      <a  style="color:▉grey"  style="color:▉grey"  class="dropdown-item" href="javascript:;;" (click)="setLang('hin')"
49                          <i class="fa fa-flag-o mr-2"></i>
50                       Hindi (hin)</a>
51                       <div class="dropdown-divider"></div>
52                       <a  style="color:▉grey"  class="dropdown-item" href="#">
53                          <i class="fa fa-flag-o mr-2"></i>
54                       Urdu (ur)</a>
55
56                      <div class="dropdown-divider"></div>
57                      <a  style="color:▉grey"  class="dropdown-item" href="#">
58                          <i class="fa fa-flag-o mr-2"></i>
59                       Chinese (chi)</a>
60
61                     <div class="dropdown-divider"></div>
62                     <a  style="color:▉grey"  class="dropdown-item" href="#">
63                          <i class="fa fa-flag-o mr-2"></i>
64                       Korean (kor)</a>
65                      </div>
66
67                  </li>
68                 <li class="nav-item">
69                     <a class="nav-link" href="#" routerLink="/register">{{ this.translate.data["REGISTER"] | translate }}</a>
70                  </li>
71                 <li class="nav-item">
72                     <a class="nav-link" href="#" routerLink="/login">{{ this.translate.data["LOGIN"] | translate }}</a>
73                  </li>
74             </ul>
75             <form class="form-inline my-2 my-lg-0">
```

18

◇ home.component.html ✕

div.card-body ⟩ ⊘ nav.navbar.nav.navbar-expand-lg ⟩ ⊘ div#navbarTogglerDemo03.collapse.navbar-collapse ⟩ ⊘ ul.navbar-nav.mr-auto.mt-2.mt-lg-0 ⟩ ⊘ li.nav-item.dropdown ⟩ ⊘ div.dropdown-menu ⟩ ⊘

```
75              <form class="form-inline my-2 my-lg-0">
76                <input style="box-shadow: 1px 1px 10px ▢grey;" class="form-control mr-sm-2" type="search" placeholder="{{ this.translate.d
77                <button class="btn btn-2 my-2 my-sm-0" type="submit">
78                  <a href="#" style="color:▢maroon">
79                    <i class="fa fa-search"></i>
80                  </a>
81                </button>
82              </form>
83            </div>
84          </nav>
85          <div id="carouselExampleInterval" class="carousel-1 carousel slide" data-ride="carousel">
86              <div class="carousel-inner">
87                <div class="carousel-item active" data-interval="10000">
88                  <img src="../../../assets/slide-1.jpg" class="d-block w-100" alt="...">
89                </div>
90                <div class="carousel-item" data-interval="2000">
91                  <img src="../../../assets/slide-1.jpg" class="d-block w-100" alt="...">
92                </div>
93                <div class="carousel-item">
94                  <img src="../../../assets/slide-1.jpg" class="d-block w-100" alt="...">
95                </div>
96              </div>
97              <a class="carousel-control-prev" href="#carouselExampleInterval" role="button" data-slide="prev">
98                <span class="carousel-control-prev-icon" aria-hidden="true"></span>
99                <span class="sr-only">Previous</span>
100             </a>
101             <a class="carousel-control-next" href="#carouselExampleInterval" role="button" data-slide="next">
102               <span class="carousel-control-next-icon" aria-hidden="true"></span>
103               <span class="sr-only">Next</span>
104             </a>
105          </div>
106          <div class="cont">
107              <h5 class="card-title ct">{{this.translate.data["HEADING"] | translate }}</h5>
108              <div class="card card-0" style="width: 18rem;">
109                  <img src="../../../assets/Blood Donor Pic.jpg" class="card-img-top" alt="...">
110                  <div class="card-body">
111                    <p class="card-text text">{{this.translate.data["PARAGRAPH"] | translate}}</p>
112
113                  </div>
```

19

```
109                          <img src="../../../assets/Blood Donor Pic.jpg" class="card-img-top" alt="...">
110                          <div class="card-body">
111                            <p class="card-text text">{{this.translate.data["PARAGRAPH"] | translate}}</p>
112
113                          </div>
114                        </div>
115
116                        <h5 class="card-title ct-1">{{this.translate.data["HEADING1"] | translate }}</h5>
117                        <div class="card card-2" style="width: 18rem;">
118                          <img src="../../../assets/vision.jpg" class="card-img-top" alt="...">
119                          <div class="card-body">
120                            <p class="card-text text-1">{{this.translate.data["PARAGRAPH"] | translate}}</p>
121
122                          </div>
123                        </div>
124
125                        <h5 class="card-title ct-2">{{this.translate.data["HEADING2"] | translate }}</h5>
126                        <div class="card card-3" style="width: 18rem;">
127                          <img src="../../../assets/slide-1.jpg" class="card-img-top" alt="...">
128                          <div class="card-body">
129                            <p class="card-text text-2">{{this.translate.data["PARAGRAPH"] | translate}}</p>
130
131                          </div>
132                        </div>
133                  </div>
134
135              <h4 class="head">{{this.translate.data["MAINHEADING"] | translate}}</h4>
136              <div class=" cont-1 container">
137                <div class="row justify-content-center">
138                  <div class="col-md-10">
139                    <p class="para"><q><blockquote> {{this.translate.data["PARAGRAPH1"] | translate}}
140                    </blockquote></q></p>
141                  </div>
142                </div>
143              </div>
144
145          </div>
146          <!-- <div class="footer"></div> -->
147          <nav class="navbar nav-1">
```

Registration source code:

```html
<div class="container">
  <div class="row justify-content-center">
    <div class="col-md-5">
      <div class="card card-1">
        <img class="logo" width="150" height="50" src="../../../assets/c.png">
        <div class="card-body">
          <nav class="navbar nav navbar-expand-lg">
            <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarTogglerDemo03" aria-controls="navbarTog
              <span class="navbar-toggler-icon"></span>
            </button>
            <a class="navbar-brand" href="#"></a>

            <div class="collapse navbar-collapse" id="navbarTogglerDemo03">
              <ul class="navbar-nav mr-auto mt-2 mt-lg-0">
                <li class="nav-item active">
                  <a class="nav-link link" href="#" style="color:maroon" routerLink="/home">HOME <span class="sr-only">(current)</span></a
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#"  routerLink="/about">ABOUT US</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#"  routerLink="/donorlist">DONERS LIST</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#"  routerLink="/contact">CONTACT US</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#" routerLink="/register">REGISTER</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#" routerLink="/login">LOGIN</a>
                </li>
              </ul>
              <form class="form-inline my-2 my-lg-0">
                <input class="form-control mr-sm-2" type="search" placeholder="Search" aria-label="Search">
                <button class="btn btn-outline-danger my-2 my-sm-0" type="submit">Search</button>
              </form>
            </div>
          </nav>
```

```html
                    <li class="nav-item">
                        <a class="nav-link" href="#" routerLink="/login">LOGIN</a>
                    </li>
            </ul>
            <form class="form-inline my-2 my-lg-0">
                <input class="form-control mr-sm-2" type="search" placeholder="Search" aria-label="Search">
                <button class="btn btn-outline-danger my-2 my-sm-0" type="submit">Search</button>
            </form>
        </div>
    </nav>
    <h6 class="head-1">Home</h6><strong class="head-2"> > User Account</strong><strong class="head-3"> > User Account</strong>


        <img class="image" width="250" height="200"  src="../../../assets/5.jpg">
        <img class="image-1" width="250" height="200"  src="../../../assets/Bloodbag.gif">


<!-- <div class="footer"></div> -->
<h5 style="margin-top:50px;">User Account</h5>
<ul class="nav nav-2 tabs nav-tabs" id="myTab" role="tablist">
  <li class="nav-item">
    <a class="nav-link active" id="home-tab" data-toggle="tab" href="#home" role="tab" aria-controls="home" aria-selected="true">Create
  </li>
  <li class="nav-item">
    <a class="nav-link" id="profile-tab" data-toggle="tab" href="#profile" role="tab" aria-controls="profile" aria-selected="false">Log
  </li>
  <li class="nav-item">
    <a class="nav-link" id="contact-tab" data-toggle="tab" href="#contact" role="tab" aria-controls="contact" aria-selected="false">Req
  </li>
</ul>
<div class="tab-content" id="myTabContent">
  <div class="tab-pane fade show active" id="home" role="tabpanel" aria-labelledby="home-tab"> <form #form="ngForm" (ngSubmit)="onSubmi
    <input name="$key" #$key="ngModel" [(ngModel)]="authservice.user.$key" type="hidden"  class="input form-control" id="exampleInputEm
    <div class="form-group">
      <label for="exampleInputEmail1">Username <strong class="color">*</strong></label>
      <input name="username" #username="ngModel" [(ngModel)]="authservice.user.username" type="text"  class="input form-control" id="ex
    </div>
    <div class="form-group">
      <label for="exampleInputPassword1">Email Address <strong class="color">*</strong></label>
      <input name="email" #email="ngModel" [(ngModel)]="authservice.user.email"  type="email" class=" input form-control" id="exampleIn
    </div>
```

```html
<div class="tab-pane fade show active" id="home" role="tabpanel" aria-labelledby="home-tab"> <form #form="ngForm" (ngSubmit)="onSubmi
  <input name="$key" #$key="ngModel" [(ngModel)]="authservice.user.$key" type="hidden"  class="input form-control" id="exampleInputEm
  <div class="form-group">
    <label for="exampleInputEmail1">Username <strong class="color">*</strong></label>
    <input name="username" #username="ngModel" [(ngModel)]="authservice.user.username" type="text"  class="input form-control" id="ex
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Email Address <strong class="color">*</strong></label>
    <input name="email" #email="ngModel" [(ngModel)]="authservice.user.email"  type="email" class=" input form-control" id="exampleIn
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password <strong class="color">*</strong></label>
    <input  name="password" #password="ngModel" [(ngModel)]="authservice.user.password"  type="password" class=" input form-control"
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Confirm Password <strong class="color">*</strong></label>
    <input  name="ConfirmPassword" #ConfirmPassword="ngModel" [(ngModel)]="authservice.user.ConfirmPassword"  type="password" class="
  </div>

  <div class="form-group">
    <label for="exampleInputPassword1">Name <strong class="color">*</strong></label>
    <input name="name" #name="ngModel" [(ngModel)]="authservice.user.name"  type="text" class=" input form-control" id="exampleInputP
  </div>

  <div class="form-group">
    <label for="exampleInputPassword1">Contact Number <strong class="color">*</strong></label>
    <input name="contactno" #contactno="ngModel" [(ngModel)]="authservice.user.contactno"   type="number" class=" input form-control"
  </div>

  <div class="form-group">
    <label for="exampleFormControlTextarea1">Address <strong class="color">*</strong></label>
    <textarea  name="address" #address="ngModel" [(ngModel)]="authservice.user.address"  class=" input form-control" id="exampleFormC
  </div>
  <div class="form-group">
    <label for="exampleFormControlSelect1">city<strong class="color">*</strong></label>
    <select name="city" #city="ngModel" [(ngModel)]="authservice.user.city" class=" input form-control" id="exampleFormControlSelect1
      <option value="karachi">Karachi</option>
      <option value="dehli">dehli</option>
      <option value="tokyo">tokyo</option>
```

```html
            <option value="dehli">dehli</option>
            <option value="tokyo">tokyo</option>
            <option value="shanghai">shanghai</option>
            <option value="seoul">seoul</option>
          </select>
        </div>
        <div class="form-group">
          <label for="exampleFormControlSelect1">state<strong class="color">*</strong></label>
          <select name="state" #state="ngModel" [(ngModel)]="authservice.user.state" class="input form-control" id="exampleFormControlSelec
            <option value="sindh">sindh</option>
            <option value="punjab">punjab</option>
            <option value="balouchistan">balouchistan</option>
            <option value="N.W.F.P">N.W.F.P</option>
          </select>
        </div>
        <div class="form-group">
          <label for="exampleFormControlSelect1">country<strong class="color">*</strong></label>
          <select name="country" #country="ngModel" [(ngModel)]="authservice.user.country"  class="input form-control" id="exampleFormContr
            <option value="Pakistan">Pakistan</option>
            <option value="India">India</option>
            <option value="Japan">Japan</option>
            <option value="China">China</option>
            <option value="Korea">Korea</option>
          </select>
        </div>
        <button  type="submit" class="btn btn-1 btn-danger">Create an account</button>
      </form></div>
      <div class="tab-pane fade" id="profile" role="tabpanel" aria-labelledby="profile-tab"><form [formGroup]="login" (ngSubmit)="onLogin()
        <div class="form-group">
          <label for="exampleInputEmail1">Email Address <strong class="color">*</strong></label>
          <input formControlName="email" type="email"  class="input form-control" id="exampleInputEmail1" aria-describedby="emailHelp" plac
        </div>
        <div class="form-group">
          <label for="exampleInputPassword1">Password <strong class="color">*</strong></label>
          <input formControlName="password"  type="password" class=" input form-control" id="exampleInputPassword1" placeholder="Password"
        </div>
        <button  type="submit" class="btn btn-1 btn-danger">Login</button>
      </form></div>
      <div class="tab-pane fade" id="contact" role="tabpanel" aria-labelledby="contact-tab"><form [formGroup]="reset" (ngSubmit)="onReset()
```

```html
      </select>
    </div>
    <div class="form-group">
      <label for="exampleFormControlSelect1">country<strong class="color">*</strong></label>
      <select name="country" #country="ngModel" [(ngModel)]="authservice.user.country"  class="input form-control" id="exampleFormCo
        <option value="Pakistan">Pakistan</option>
        <option value="India">India</option>
        <option value="Japan">Japan</option>
        <option value="China">China</option>
        <option value="Korea">Korea</option>
      </select>
    </div>
    <button  type="submit" class="btn btn-1 btn-danger">Create an account</button>
  </form></div>
  <div class="tab-pane fade" id="profile" role="tabpanel" aria-labelledby="profile-tab"><form [formGroup]="login" (ngSubmit)="onLogi
    <div class="form-group">
      <label for="exampleInputEmail1">Email Address <strong class="color">*</strong></label>
      <input formControlName="email" type="email"  class="input form-control" id="exampleInputEmail1" aria-describedby="emailHelp" p
    </div>
    <div class="form-group">
      <label for="exampleInputPassword1">Password <strong class="color">*</strong></label>
      <input formControlName="password"  type="password" class=" input form-control" id="exampleInputPassword1" placeholder="Passwor
    </div>
    <button  type="submit" class="btn btn-1 btn-danger">Login</button>
  </form></div>
  <div class="tab-pane fade" id="contact" role="tabpanel" aria-labelledby="contact-tab"><form [formGroup]="reset" (ngSubmit)="onRese
    <div class="form-group">
      <label for="exampleInputEmail1">Email Address <strong class="color">*</strong></label>
      <input formControlName="email" type="email"  class="input form-control" id="exampleInputEmail1" aria-describedby="emailHelp" p
    </div>
    <button  type="submit" class="btn btn-1 btn-danger">E-mail new password</button>
  </form></div>
</div>
```

CONCLUSION

This proposed Blood Unity gives a reliable platform for both donors and users. It helps to minimize the human errors and problems related to data redundancy. The database is a vital aspect of the system.

The Blood Unity aims to automate the entire process of blood donation and management, making it more efficient, cost-effective, and error-free. The system will ensure the safety of the blood supply chain by implementing robust screening and testing protocols.

FUTURE WORK

The Blood Unity has the potential for further development and improvement some future aspects of the project include:

1.Automated Blood Group Detection: You can add a feature to detect the blood group of a donor using their phone camera, which will make the donation process more efficient.

2. Mobile App Integration: You can integrate the web app with a mobile app to enable donors and volunteers to access the blood bank's services from their smartphones.

3. Analytics and Reporting: You can add a feature to generate reports and analyze the data collected by the web app to identify areas for improvement.

4.Social Media Integration: You can integrate the web app with social media platforms to raise awareness about blood donation and the services provided by the blood unity.