**AMERICAN INTERNATIONAL UNIVERSITY-**

**BANGLADESH**

***Faculty of Science and Technology***

***Mid-Semester Assignment***

**Assignment Topic: Online Blood Bank Management System**

*Submitted by-*

***Group no.-*** 06

***Group members-***

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***Course-***  Object Oriented Analysis & Design

***Section-*** D

***Semester-*** Spring 20-21

*Submitted to-*

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**Brief Description:**

‘We for Us’ is an Online Blood Bank Management System. In this system, user, volunteer and admin are types of persons which is been generalized. One user can request for many donations. One donation request can contain three types of requests-blood donation, plasma donation and platelet donation. Every donation request has a unique Request number, type of donation and unit. One volunteer can assist a user by responding the request once at a time. The admins check if a volunteer is eligible for donation or not by checking the information of the volunteer and. Three of the persons has to go through logon procedure for the further activities for their identity verification by verifying their e-mail ID and password.

***Use Case Diagram:***

We for Us

User

<< i >>

Admin

<< i >>

<< e >>

Volunteer

<< e >>

<< e >>

***Class Diagram:***

**Person**

**Log in**

**User**

**Volunteer**

**Admin**

1..1

0..1

**Responds**

**Check eligibility**

**Request**

**-requestNo.:integer=**

**-donationType=null**

**-Unit:integer=0**

**Requests**

0..1

0..\*

**Donation**

0..1

0..1

0..1

1..\*

1..\*

1..\*

**Platelet**

**Plasma**

**Blood**

***Class Design:***

|  |
| --- |
| <<user>>  **User**  {last updated 10-03-21**}** |
| - userID: integer {assigned by system}  - userName: String = blank  -userBloodGroup: String {Max 3 characters}  -/userDOB: String  -donationRequestID: integer {assigned by system}  -UserPhone: integer {11 characters}  -UserAddress:String = null |
| +getUserId ( ): integer  +getuserName( ):String  + getUserBloodGroup ( ): String  +getuserDOB: ( ) String  -RequestDonation ( ):  +donationRequestID( ): integer  + getUserAddress( ): String  +getUserPhone( ): integer |

|  |
| --- |
| <<user>>  **Volunteer**  {last updated 10-03-21**}** |
| - VolunteerID: integer {assigned by system}  - VolunteerName: String {Max 30 characters}  -VolunteerBloodGroup: String {Max 3 characters}  -/VolunteerDOB: String  -LastDateofDonation:String  -VolunteerPhone: integer {11 characters}  -VolunteerAddress:String |
| +getVolunteerId ( ): integer  +getuserDOB: ( ) String  +setlastDateofDonation(LastDateofDonation:String)  +getlastDateofDonation: ( ) String  + getVolunteerBloodGroup ( ): String  +getVolunteerPhone( ): integer  + getVolunteerAddress( ): String  -CheckDonationRequest ( ): |

|  |
| --- |
| <<user>>  **Admin**  {last updated 10-03-21**}** |
| - AdminID: integer {assigned by system} |
| -CheckEligibilityofDonation( ): |

***CRC Cards:***

|  |  |
| --- | --- |
| Class Name: User | |
| Description | Keep track of users & responds to the donation requests  that is created by the users |
| Subclasses: No | |
| Superclasses: Person | |
| ***Responsibilities*** | ***Collaborations*** |
| Create requests for donations | Create Requests |
| Store user information | User Information |

|  |  |
| --- | --- |
| Class Name: Volunteer | |
| Description | Keep track of volunteers & responds to the donation requests  that is created by the users. |
| Subclasses: No | |
| Superclasses:Person | |
| ***Responsibilities*** | ***Collaborations*** |
| Store volunteer information | Volunteer Information |
| Allow access to user requests | Pending Requests |

|  |  |
| --- | --- |
| Class Name: Admin | |
| Description | Check the eligibility of the donation requests  that is applied by the volunteers. |
| Subclasses: No | |
| Superclasses: Person | |
| ***Responsibilities*** | ***Collaborations*** |
| Allow access to user requests | Pending Requests |
| Allow access to volunteer information | Eligibility |
| Check eligibility of the volunteer and approves for donation | Donation |

-----------*The End*----------