



আন্তর্জাতিক ইসলামী বিশ্ববিদ্যালয় চট্টগ্রাম  
الجامعة الإسلامية العالمية شيتاغونغ  
International Islamic University Chittagong

## Project Report

Course Code: CSE-3532

Course Name: Tools and Technologies for Internet Programming

Section: 5DF

**Project Name: BloodConnect**

### **Submitted to:**

Sara Karim

Adjunct lecturer

Dept. of CSE, IIUC

### **Submitted By:**

Sharmin Akter

ID: C223307

## 1. Introduction:

The project is a web-based Blood Donation Management System that enables users to register as donors, search for blood based on group and location, and manage personal information securely. Admins can manage user data, ensuring the platform remains reliable and up to date. The system includes authentication, a searchable donor directory, and role-based access.

## 2. Why I Chose This Project:

The main goal of this project is to develop a secure and efficient platform for connecting blood donors with recipients in need. Blood shortages are common, and this system helps mitigate that by making donor information easily accessible and searchable. The project simulates the functionality of a real-world blood bank directory with administrative oversight.

## 3. Technology Stack:

- **Frontend:**
  - HTML5, CSS3 (for structure and basic styling)
  - Embedded PHP for dynamic rendering
- **Backend:**
  - PHP (Core PHP for server-side logic)

- **Database:**
  - MySQL (connected via `mysqli` in `db.php`)

## 4. Key Features:

### User Authentication:

- Secure signup and login with password hashing (`BCRYPT`)
- Session-based authentication and access control

### Donor Management:

- Register with name, age, gender, blood group, contact info, and area
- Users can view and update their profile
- Real-time donor search by blood group and location

### Admin Panel:

- Admin login with secure access
- View, edit, or delete user records
- Manage all registered donors from a centralized dashboard

### Search Functionality:

- Users can filter donors by:
  - Blood group

- Area
- Real-time data fetched from the `users` table

### **Security Measures:**

- Passwords stored securely with hashing
- Session validation for protected routes
- Input sanitization to prevent SQL injection (partially implemented)

## **5. Contribution:**

- **Single Project**
  - Full-stack development
  - Designed and implemented user and admin panels
  - Developed search and profile management features
  - Integrated database and implemented session-based authentication