

FINAL REPORT

PROJECT: BLOOD BANK MANAGEMENT SYSTEM

SUBMITTED BY:

GROUP 2

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CSE311 SEC-2

INTRODUCTION:

Blood Bank Management System is a platform where donor and acceptor will have their individual profile with all records donation and acceptance. Acceptor can also request blood if blood group deficiency arises. Pathologist can register all the records including diagnosis history of donor. Acceptor can receive blood from their nearby registered hospital.

ANALYSIS:

Every seconds patients are being admitted in hospitals with major or minor injuries as well as critical diseases. Many of them need blood instantly. In that critical situation patients' relatives search for blood in different places and knock for others for donating blood. Sometimes it might need huge time managing blood. They need to go to traditional blood bank to find blood. Our project is to find blood easily. This projects aim to create a extended community where donor are registered and they can donate blood willingly matching the blood group and location of the patient. This system is for non profitable organization and a ongoing process. Every registered hospital would be a individual blood bank. Under this organized system both hospital and patient get maximum benefit. And the donor's role is to volunteer. Donor's activity will influence every person to donate blood willingly. Here pathologist will be employed by the organization and they will be provided in every hospital to play as admin role to input blood donation, acceptance, request and disease diagnosis records in the database.

REQUIRED TOOLS DEVELOPING THE WEBSITE:

Software: Visual Studio with different extensions, XAMPP, Microsoft Edge, Adobe Illustrator

Database Design: MYSQL

Front End: HTML, CSS, JavaScript

Back End: PHP

PROJECT DESIGN:

Specifications

Identify Entities.

- Donor
- Acceptor
- Technician
- Hospital
- Diagnostic Test

Identify Relationships.

- A donor may donate blood to as many hospitals as he/she wants. Also, a hospital can have multiple donors. So, Cardinality is M:M(many to many).
- An acceptor can receive blood from multiple hospital. Also, a hospital can give blood to many acceptors. So, Cardinality is M:M(many to many).
- An acceptor can request blood from multiple hospital. Also, a hospital can take request from multiple acceptor. So, Cardinality is M:M(Many to many).
- A hospital can have multiple technician. But, a technician can work for 1 hospital. So, Cardinality is 1:M(one to many).
- A technician can supervise multiple diagnostic test. But, a diagnostic test report belongs to only 1 technician. So, Cardinality is 1:M(one to many).
- A donor can take multiple diagnostic test for different diseases. But, a diagnostic test report can belong to only one donor. Here, the entity diagnostic test is a weak entity. So, Cardinality is 1:M(one to many).

Specifications

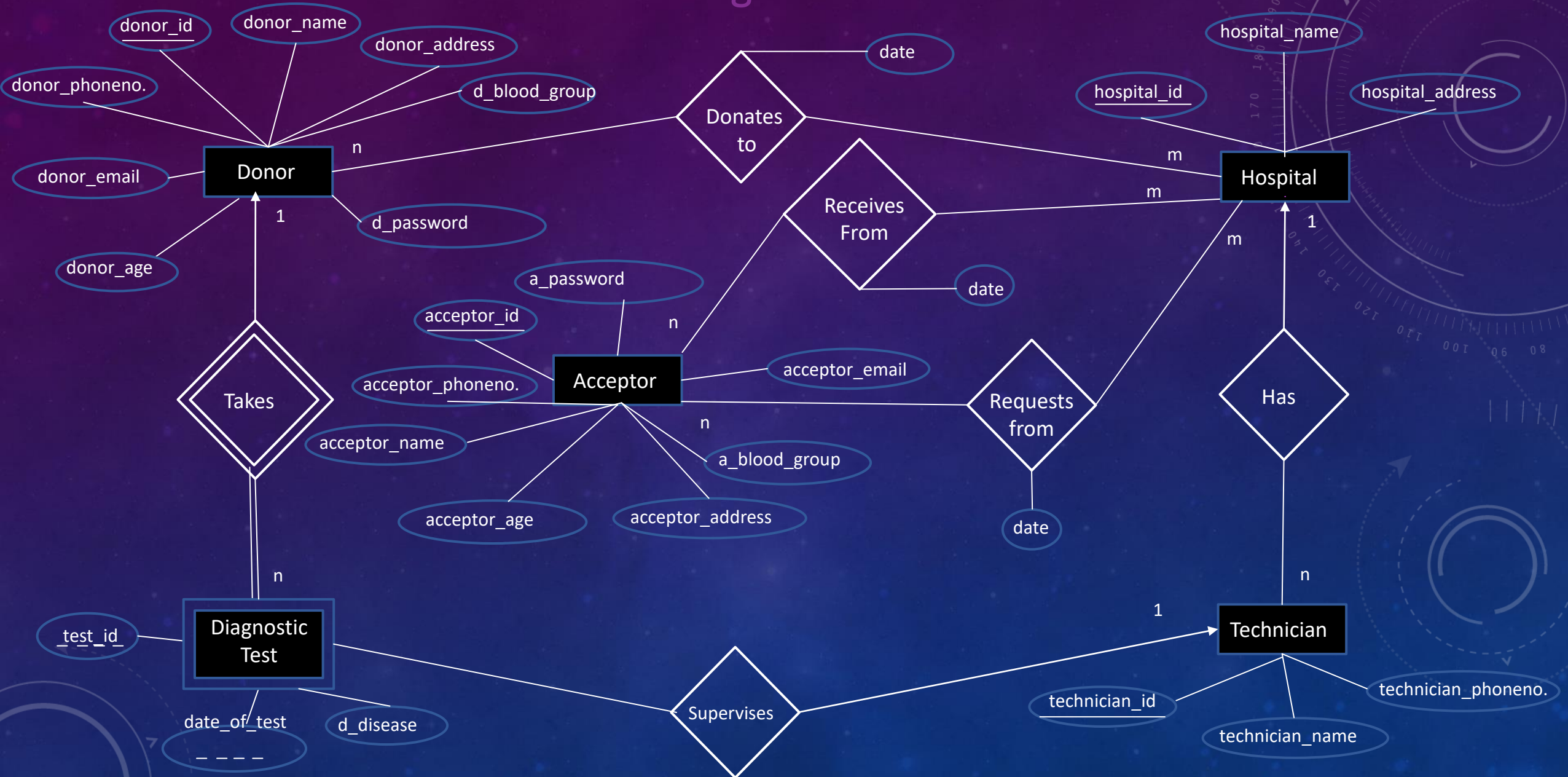
Identify the key attributes.

- **Donor:** donor-id
- **Acceptor:** acceptor-id
- **Technician:** technician-id
- **Hospital:** hospital-id
- **Diagnostic Test:** donor-id, test-id, date_of_test

Identify other relevant attributes.

- **Donor:** donor-id, donor_name, donor_address, donor_email, donor_phoneno., blood_group, date_of_donation
- **Acceptor:** acceptor-id, acceptor_name, acceptor_address, acceptor_email, acceptor_phoneno., blood_group
- **Technician :** technician -id, technician _name, technician _phoneno.
- **Hospital:** hospital-id, hospital_name, hospital_address
- **Diagnostic Test :** test-id, date_of_test

ER-Diagram



Relational Table

Donor

| <u>D_id</u> | D_name | D_address | D_group | D_email | D_phone | D_age | D_Pass |
|-------------|--------|-----------|---------|---------|---------|-------|--------|
|-------------|--------|-----------|---------|---------|---------|-------|--------|

Acceptor

| <u>A_id</u> | A_name | A_address | A_group | A_email | A_phone | A_age | A_Pass |
|-------------|--------|-----------|---------|---------|---------|-------|--------|
|-------------|--------|-----------|---------|---------|---------|-------|--------|

Hospital

| <u>H_id</u> | H_name | H_address |
|-------------|--------|-----------|
|-------------|--------|-----------|

Technician

| <u>Tec_id</u> | Tec_Name | Tec_Phone | H_id |
|---------------|----------|-----------|------|
|---------------|----------|-----------|------|

Diagnosis

| <u>D_id</u> | <u>Date</u> | Tec_id | Disease |
|-------------|-------------|--------|---------|
|-------------|-------------|--------|---------|

Donates to

| <u>D_id</u> | <u>H_id</u> | Date |
|-------------|-------------|------|
|-------------|-------------|------|

Receives from

| <u>A_id</u> | <u>H_id</u> | Date |
|-------------|-------------|------|
|-------------|-------------|------|

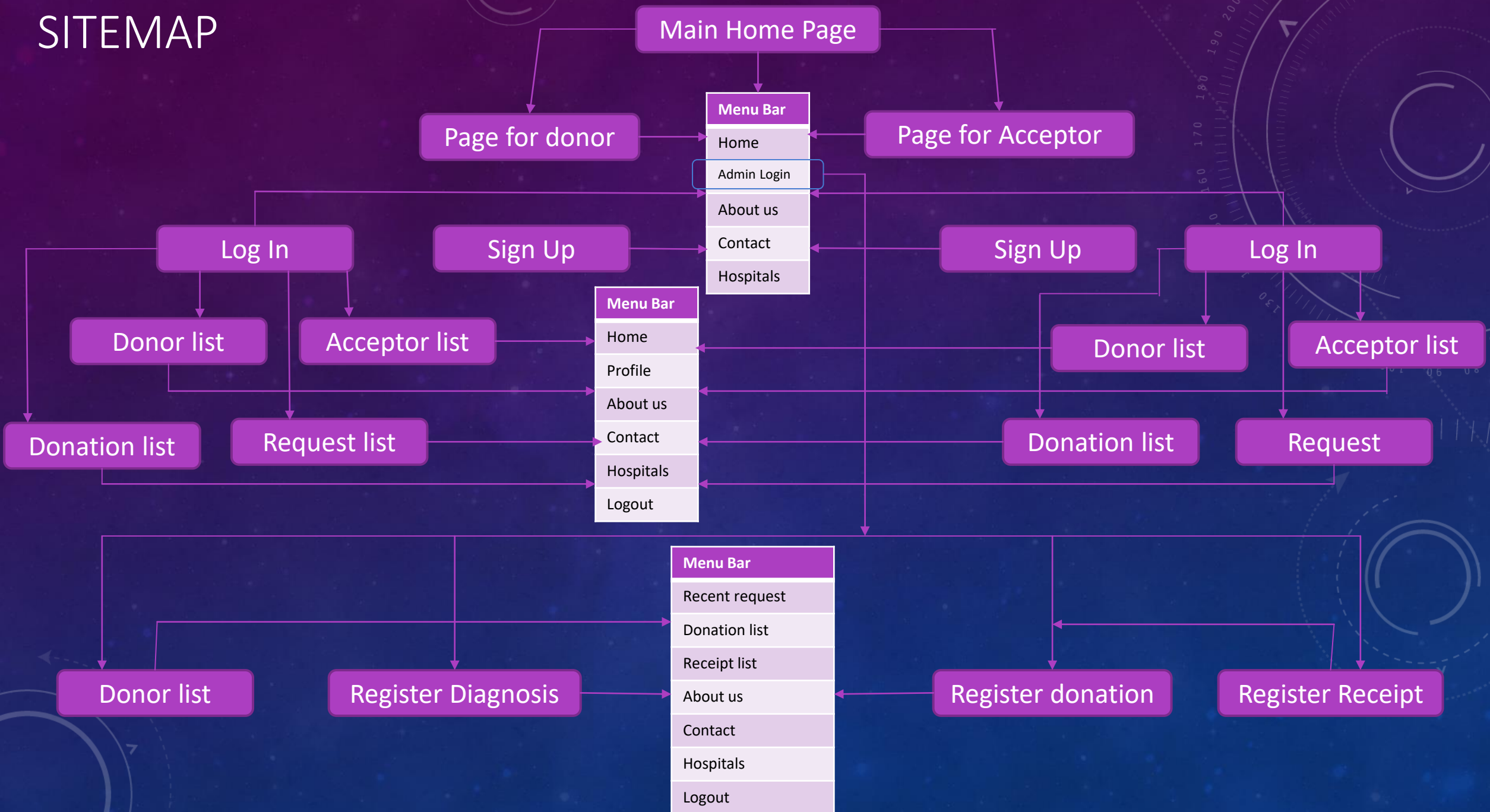
Acceptor request

| <u>A_id</u> | <u>H_id</u> | Date |
|-------------|-------------|------|
|-------------|-------------|------|

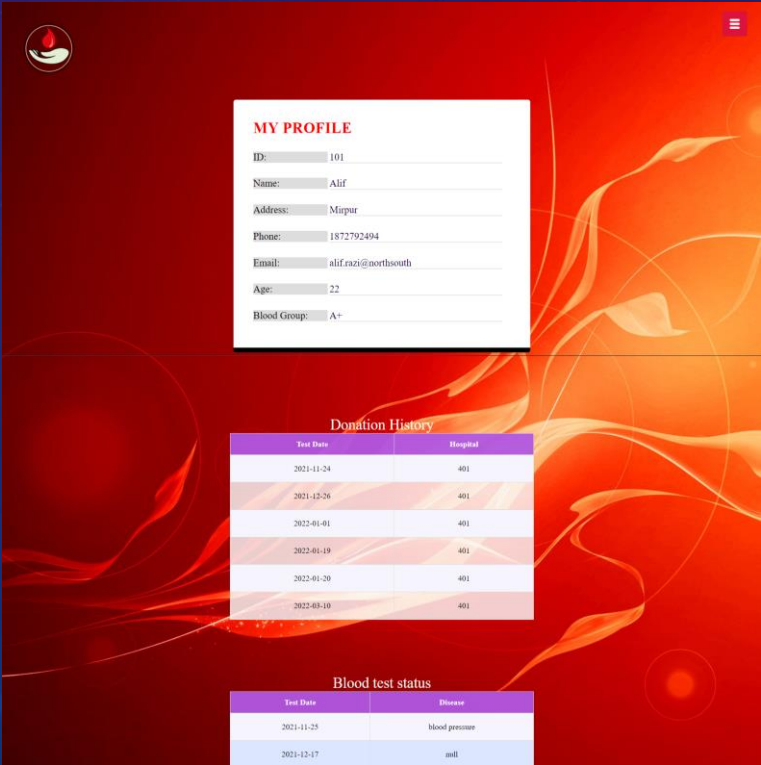
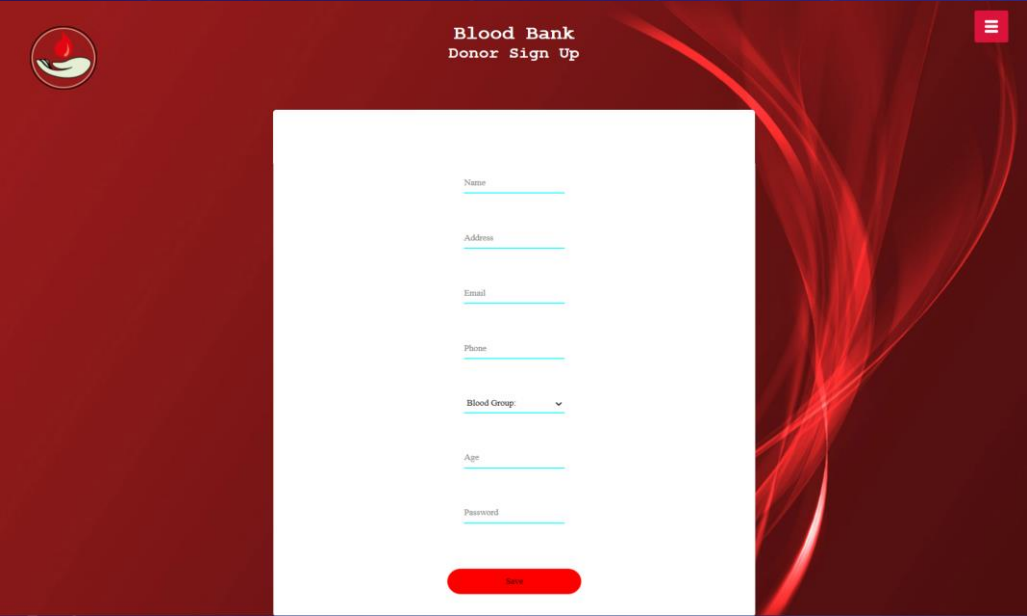
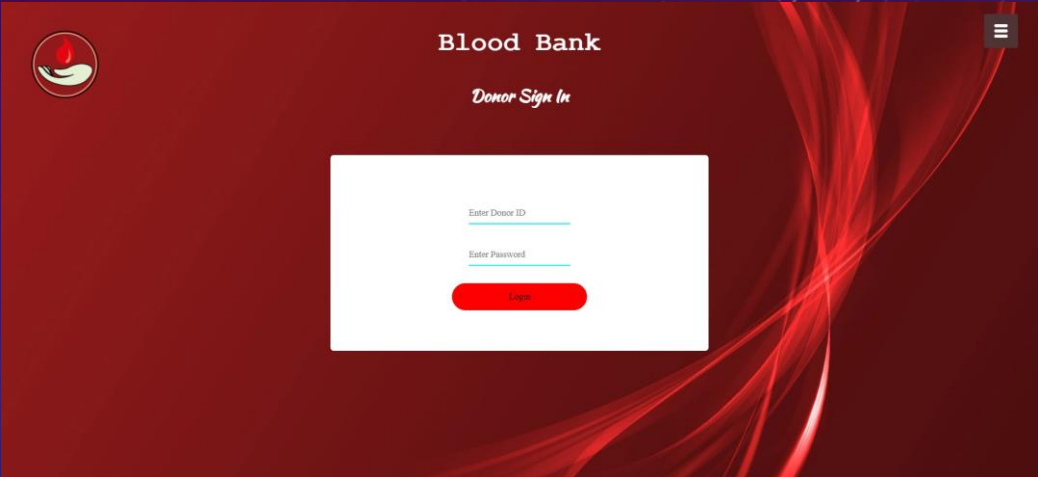
Project Workflow


| 1 st week | 2 nd week | 3 rd week | 4 th week |
|--|--|---|---|
| Designing ERD, Relational Model | Normalization, Creating database | Designing Frontend | Designing Backend, query language |
| In the first week all the entities with their attributes were designed. Relation among the attributes were built. New tables were generated through relational table. Identifying primary keys and foreign keys. | All the tables were checked whether they are in 4NF form. After ensuring 4NF form database were created, | All the pages were designed through HTML and CSS. | The backend part were designed and query code were written. |

SITEMAP



SNAPSHOT







Blood Bank

Give Blood to save a Life

Donor List


| ID | Name | Address | Phone Number | Email | Blood Group | Age |
|-----|----------|----------|--------------|-------------------------|-------------|-----|
| 101 | Alif | Mirpur | 1872792494 | alif.razi@northsouth | A+ | 22 |
| 102 | khaleq | Uttara | 45 | khaleq.rahman@gmail.com | B+ | |
| 103 | khaleq | Uttara | 1956756855 | khaleq.rahman@gmail.com | B+ | 45 |
| 104 | abdullah | Uttara | 1565792103 | abdullah.gmail.com | O+ | 27 |
| 105 | mohibul | kajipara | 1789236478 | mohibul@gmail.com | O+ | 98 |
| 106 | karim | Uttara | 1862272365 | karim@gmail.com | A+ | 87 |
| 107 | Saighdha | khilkhet | 1896453269 | saighdha@gmail.com | B- | 45 |





Blood Bank

Admin Sign In



Blood Bank

Give Blood to save a Life

Request List

| Acceptor ID | Acceptor Name | Blood Group | Hospital Name | Hospital Address | Date |
|-------------|---------------|-------------|-------------------|------------------|------------|
| 201 | rahim | AB+ | Evercare Hospital | Bashundhara | 2022-06-03 |
| 202 | jalil | O+ | Evercare Hospital | Bashundhara | 2021-10-23 |
| 202 | jalil | O+ | Evercare Hospital | Bashundhara | 2022-03-10 |
| 203 | hamim | AB+ | Evercare Hospital | Bashundhara | 2021-12-04 |
| 204 | hamim | AB+ | Evercare Hospital | Bashundhara | 2022-04-07 |

CONCLUSION & FUTURE WORK

By accomplishing this projects, our team learned a clear idea about developing websites, designing front end, backend and connecting database. We have completed our project successfully without any error and bugs. Our project had lacking designing front end as any framework was prohibited to use. But overall our project was successful as we completed it with the requirements including multiple sign in options, queries.

WORK CONTRIBUTIONS

Frontend: Alif Al Razi, Onurup Rahman, Sayma Akhter Snigdha

Backend: Alif Al Razi

Database creation: Alif Al Razi, Onurup Rahman

Database connection: Alif Al Razi

Query language: Alif Al Razi

Sign in, Sign up: Alif Al Razi

Logo design: Alif Al Razi, Onurup Rahman

GITHUB LINK

<https://github.com/ALIF-AL-RAZI/bbms.git>



THANKS