

Project Report

**Project Title: Blood Donator/Finder**

**Course:CSE115L**

**Section-03**

**Submitted to: Ashik Mostafa Alvi**

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**Submitted by:**

**Members:**

**Shamima Akter Esty ID:1911098642**

**Shafin Ahmed Zidan ID:1912891042**

**Project Overview:**

Nowadays in Bangladesh even though blood donors are on the rise, it can still be quite difficult sometimes to find the needed blood type in case of emergencies as people are not always readily available or the hospital simply might be out of that blood type. Blood Donator/Finder is a C language program where the user has the flexibility to search for blood donors at any time that are available and ready to help. The user has to input some information such as their location what blood type they are in need of and the program will show them the results which is most convenient. In addition the users also have the option to donate blood, and the program will ask them some query to make sure they are fit to donate blood and will note down some personal information of theirs for later use and shows them the best places to donate blood near them. The program also has multiple helpful information about donating blood and guidelines to know if someone is suitable for donation.

**Features:**

* Huge database of locations to receive blood
* Intuitive and easy to use UI
* Has options to both receive and donate blood
* Shows nearest location to find blood in case of emergencies
* Has guidelines regarding blood donation and how best to approach it

1. If the first option was chosen “Need Blood”🡪enter the blood group 🡪pick location area🡪 displays name of donors that are available in that location
2. If the second option was chosen “Donate blood to blood bank” 🡪query to see if fit for donation🡪enter location are🡪enter some personal info about use🡪displays where most convenient to donate blood
3. If the third option was chosen ”learn about the importance of donating blood” 🡪Displays a brief summary on why a person should donate blood
4. If the fourth option was chosen ”Rules to follow to become a healthy blood donor” 🡪 some guidelines on how to stay fit before donation is displayed

**Pre-defined functions:**

-printf()

-scanf()

-fopen()

-fgets()

-fputs()

-fclose()

-fflush(stdin)- clears the output buffer and moves it to console

**User Defined functions:**

-void main\_menu() – the main menu

-void need\_blood() -for blood receiving

-void donate\_blood() –for blood donation

-void donate2\_blood() -supporting function for blood donation

-void don\_info() –for importance of donation

-void health\_info() –for guidelines of safe donation

-void A\_plus()

-void A\_minus()

-void B\_plus()

-void B\_minus()

-void AB\_plus()

-void AB\_minus()

-void O\_plus()

-void O\_minus()

-void A\_plus2() 🡪all the following functions are for the separate blood types

-void A\_minus2()

-void B\_plus2()

-void B\_minus2()

-void AB\_plus2()

-void AB\_minus2()

-void O\_plus2()

-void O\_minus2()

-void pick\_loc() –function to select the location area

**Source code:**

#include <stdio.h>

#include <stdlib.h>

void main\_menu();

void need\_blood();

void donate\_blood();

void donate2\_blood();

void don\_info();

void health\_info();

void A\_plus();

void A\_minus();

void B\_plus();

void B\_minus();

void AB\_plus();

void AB\_minus();

void O\_plus();

void O\_minus();

void A\_plus2();

void A\_minus2();

void B\_plus2();

void B\_minus2();

void AB\_plus2();

void AB\_minus2();

void O\_plus2();

void O\_minus2();

void pick\_loc();

int main(void)

{

printf("WELCOME TO BLOOD FINDER/DONATOR\n\n");

printf(" \* \n");

printf(" \* \* \n");

printf(" \* \* \n");

printf(" \* \* \n");

printf(" \* \* \n");

printf(" \* SAVE \* \n");

printf(" \* LIFE \* \n");

printf(" \* \* \n");

printf(" \* \* \n");

printf(" \*\*\*\*\*\*\* \n");

printf(" GIVE BLOOD \n");

main\_menu();

}

void main\_menu()

{

int m;

printf("Select one of the options below:\n");

printf("1.Need blood\n");

printf("2.Donate blood to blood bank\n");

printf("3.learn about the importance of donating blood\n");

printf("4.Rules to follow to become a healthy blood donor\n");

printf("0.return to main menu");

printf("\nenter your choice(1/2/3/4/5):\n");

scanf("%d",&m);

if (m==1)

{

need\_blood();

}

if(m==2)

{

donate\_blood();

}

else if(m==3)

{

don\_info();

}

else if(m==4)

{

health\_info();

}

else if(m==0)

{

printf("resetting to main menu\n");

}

}

void need\_blood()

{

int b1;

printf("\nselect required blood group from the options below(1/2/3/4/5/6/7/8):/n/n");

printf("\n1.A+");

printf("\n2.A-");

printf("\n3.B+");

printf("\n4.B-");

printf("\n5.AB-");

printf("\n6.AB+");

printf("\n7.O+");

printf("\n8.O-\n\n");

scanf("%d",&b1);

if (b1==1)

{

A\_plus();

}

else if(b1==2)

{

A\_minus();

}

else if(b1==3)

{

B\_plus();

}

else if(b1==4)

{

B\_minus();

}

else if(b1==5)

{

AB\_plus();

}

else if(b1==6)

{

AB\_minus();

}

else if(b1==7)

{

O\_plus();

}

else if(b1==8)

{

O\_minus();

}

else{

main\_menu();

}

}

void pic\_loc()

{

printf("Pick your area from the options given below(1/2/3/4/5/6/7/8):");

printf("\n 1. Uttara \n");

printf("\n 2. Bashundhara \n");

printf("\n 3. Dhanmondi \n");

printf("\n 4. Gulshan \n");

printf("\n 5. Mirpur \n");

}

void A\_plus()

{

int aplus;

int a1,a2,a3,a4,a5;

pic\_loc();

printf("\nyour choice:\n");

scanf("%d",&aplus);

if(aplus == 1)

{

FILE \*ap1;

ap1=fopen("Uttara A positive Donor.txt","r");

if (ap1)

{

while ((a1 = getc(ap1)) != EOF)

putchar(a1);

fclose(ap1);

}

}

else if(aplus == 2)

{

FILE \*ap2;

ap2=fopen("Basundhara A positive Donor.txt","r");

if (ap2)

{

while ((a2 = getc(ap2)) != EOF)

putchar(a2);

fclose(ap2);

}

}

else if(aplus == 3)

{

FILE \*ap3;

ap3=fopen("Dhanmondi A positive Donor.txt","r");

if (ap3)

{

while ((a3 = getc(ap3)) != EOF)

putchar(a3);

fclose(ap3);

}

}

else if(aplus == 4)

{

FILE \*ap4;

ap4=fopen("Gulshan A positive Donor.txt","r");

if (ap4)

{

while ((a4 = getc(ap4)) != EOF)

putchar(a4);

fclose(ap4);

}

}

else if(aplus == 5)

{

FILE \*ap5;

ap5=fopen("Mirpur A positive Donor.txt","r");

if (ap5)

{

while ((a5 = getc(ap5)) != EOF)

putchar(a5);

fclose(ap5);

}

}

}

void A\_minus()

{

int aminus;

int a1,a2,a3,a4,a5;

pic\_loc();

printf("your choice:");

scanf("%d",&aminus);

if(aminus == 1)

{

FILE \*an1;

an1=fopen("Uttara A negetive Donor.txt","r");

if (an1)

{

while ((a1 = getc(an1)) != EOF)

putchar(a1);

fclose(an1);

}

}

else if(aminus == 2)

{

FILE \*an2;

an2=fopen("Basundhara A negetive Donor.txt","r");

if (an2)

{

while ((a2 = getc(an2)) != EOF)

putchar(a2);

fclose(an2);

}

}

else if(aminus == 3)

{

FILE \*an3;

an3=fopen("Dhanmondi A negetive Donor.txt","r");

if (an3)

{

while ((a3 = getc(an3)) != EOF)

putchar(a3);

fclose(an3);

}

}

else if(aminus == 4)

{

FILE \*an4;

an4=fopen("Gulshan A negetive Donor.txt","r");

if (an4)

{

while ((a4 = getc(an4)) != EOF)

putchar(a4);

fclose(an4);

}

}

else if(aminus == 5)

{

FILE \*an5;

an5=fopen("Mirpur A negetive Donor.txt","r");

if (an5)

{

while ((a5 = getc(an5)) != EOF)

putchar(a5);

fclose(an5);

}

}

}

void B\_plus()

{

int bplus;

int b1,b2,b3,b4,b5;

pic\_loc();

printf("your choice:");

scanf("%d",&bplus);

if(bplus == 1)

{

FILE \*bp1;

bp1=fopen("Uttara B positive Donor.txt","r");

if (bp1)

{

while ((b1 = getc(bp1)) != EOF)

putchar(b1);

fclose(bp1);

}

}

else if(bplus == 2)

{

FILE \*ab2;

ab2=fopen("Basundhara B positive Donor.txt","r");

if (ab2)

{

while ((b2 = getc(ab2)) != EOF)

putchar(b2);

fclose(ab2);

}

}

else if(bplus == 3)

{

FILE \*ab3;

ab3=fopen("Dhanmondi B positive Donor.txt","r");

if (ab3)

{

while ((b3 = getc(ab3)) != EOF)

putchar(b3);

fclose(ab3);

}

}

else if(bplus == 4)

{

FILE \*ab4;

ab4=fopen("Gulshan B positive Donor.txt","r");

if (ab4)

{

while ((b4 = getc(ab4)) != EOF)

putchar(b4);

fclose(ab4);

}

}

else if(bplus == 5)

{

FILE \*ab5;

ab5=fopen("Mirpur B positive Donor.txt","r");

if (ab5)

{

while ((b5 = getc(ab5)) != EOF)

putchar(b5);

fclose(ab5);

}

}

}

void B\_minus()

{

int bminus;

int b1,b2,b3,b4,b5;

pic\_loc();

printf("your choice:");

scanf("%d",&bminus);

if(bminus == 1)

{

FILE \*bn1;

bn1=fopen("Uttara B negetive Donor.txt","r");

if (bn1)

{

while ((b1 = getc(bn1)) != EOF)

putchar(b1);

fclose(bn1);

}

}

else if(bminus == 2)

{

FILE \*bn2;

bn2=fopen("Basundhara B negetive Donor.txt","r");

if (bn2)

{

while ((b2 = getc(bn2)) != EOF)

putchar(b2);

fclose(bn2);

}

}

else if(bminus == 3)

{

FILE \*bn3;

bn3=fopen("Dhanmondi B negetive Donor.txt","r");

if (bn3)

{

while ((b3 = getc(bn3)) != EOF)

putchar(b3);

fclose(bn3);

}

}

else if(bminus == 4)

{

FILE \*bn4;

bn4=fopen("Gulshan B negetive Donor.txt","r");

if (bn4)

{

while ((b4 = getc(bn4)) != EOF)

putchar(b4);

fclose(bn4);

}

}

else if(bminus == 5)

{

FILE \*bn5;

bn5=fopen("Mirpur B negetive Donor.txt","r");

if (bn5)

{

while ((b5 = getc(bn5)) != EOF)

putchar(b5);

fclose(bn5);

}

}

}

void AB\_plus()

{

int abplus;

int ab1,ab2,ab3,ab4,ab5;

pic\_loc();

printf("your choice:");

scanf("%d",&abplus);

if(abplus == 1)

{

FILE \*abp1;

abp1=fopen("Uttara AB positive Donor.txt","r");

if (abp1)

{

while ((ab1 = getc(abp1)) != EOF)

putchar(ab1);

fclose(abp1);

}

}

else if(abplus == 2)

{

FILE \*abp2;

abp2=fopen("Basundhara AB positive Donor.txt","r");

if (abp2)

{

while ((ab2 = getc(abp2)) != EOF)

putchar(ab2);

fclose(abp2);

}

}

else if(abplus == 3)

{

FILE \*abp3;

abp3=fopen("Dhanmondi AB positive Donor.txt","r");

if (abp3)

{

while ((ab3 = getc(abp3)) != EOF)

putchar(ab3);

fclose(abp3);

}

}

else if(abplus == 4)

{

FILE \*abp4;

abp4=fopen("Gulshan AB positive Donor.txt","r");

if (abp4)

{

while ((ab4 = getc(abp4)) != EOF)

putchar(ab4);

fclose(abp4);

}

}

else if(abplus == 5)

{

FILE \*abp5;

abp5=fopen("Mirpur AB positive Donor.txt","r");

if (abp5)

{

while ((ab5 = getc(abp5)) != EOF)

putchar(ab5);

fclose(abp5);

}

}

}

void AB\_minus()

{

int abminus;

int ab1,ab2,ab3,ab4,ab5;

pic\_loc();

printf("your choice:");

scanf("%d",&abminus);

if(abminus == 1)

{

FILE \*abn1;

abn1=fopen("Uttara AB negetive Donor.txt","r");

if (abn1)

{

while ((ab1 = getc(abn1)) != EOF)

putchar(ab1);

fclose(abn1);

}

}

else if(abminus == 2)

{

FILE \*abn2;

abn2=fopen("Basundhara AB negetive Donor.txt","r");

if (abn2)

{

while ((ab2 = getc(abn2)) != EOF)

putchar(ab2);

fclose(abn2);

}

}

else if(abminus == 3)

{

FILE \*abn3;

abn3=fopen("Dhanmondi AB negetive Donor.txt","r");

if (abn3)

{

while ((ab3 = getc(abn3)) != EOF)

putchar(ab3);

fclose(abn3);

}

}

else if(abminus == 4)

{

FILE \*abn4;

abn4=fopen("Gulshan AB negetive Donor.txt","r");

if (abn4)

{

while ((ab4 = getc(abn4)) != EOF)

putchar(ab4);

fclose(abn4);

}

}

else if(abminus== 5)

{

FILE \*abn5;

abn5=fopen("Mirpur AB negetive Donor.txt","r");

if (abn5)

{

while ((ab5 = getc(abn5)) != EOF)

putchar(ab5);

fclose(abn5);

}

}

}

void O\_plus()

{

int oplus;

int o1,o2,o3,o4,o5;

pic\_loc();

printf("your choice:");

scanf("%d",&oplus);

if(oplus == 1)

{

FILE \*op1;

op1=fopen("Uttara O positive Donor.txt","r");

if (op1)

{

while ((o1 = getc(op1)) != EOF)

putchar(o1);

fclose(op1);

}

}

else if(oplus == 2)

{

FILE \*op2;

op2=fopen("Basundhara O positive Donor.txt","r");

if (op2)

{

while ((o2 = getc(op2)) != EOF)

putchar(o2);

fclose(op2);

}

}

else if(oplus == 3)

{

FILE \*op3;

op3=fopen("Dhanmondi O positive Donor.txt","r");

if (op3)

{

while ((o3 = getc(op3)) != EOF)

putchar(o3);

fclose(op3);

}

}

else if(oplus == 4)

{

FILE \*op4;

op4=fopen("Gulshan O positive Donor.txt","r");

if (op4)

{

while ((o4 = getc(op4)) != EOF)

putchar(o4);

fclose(op4);

}

}

else if(oplus == 5)

{

FILE \*op5;

op5=fopen("Mirpur O positive Donor.txt","r");

if (op5)

{

while ((o5 = getc(op5)) != EOF)

putchar(o5);

fclose(op5);

}

}

}

void O\_minus()

{

int ominus;

int o1,o2,o3,o4,o5;

pic\_loc();

printf("your choice:");

scanf("%d",&ominus);

if(ominus == 1)

{

FILE \*on1;

on1=fopen("Uttara O negetive Donor.txt","r");

if (on1)

{

while ((o1 = getc(on1)) != EOF)

putchar(o1);

fclose(on1);

}

}

else if(ominus == 2)

{

FILE \*on2;

on2=fopen("Basundhara O negetive Donor.txt","r");

if (on2)

{

while ((o2 = getc(on2)) != EOF)

putchar(o2);

fclose(on2);

}

}

else if(ominus == 3)

{

FILE \*on3;

on3=fopen("Dhanmondi O negetive Donor.txt","r");

if (on3)

{

while ((o3 = getc(on3)) != EOF)

putchar(o3);

fclose(on3);

}

}

else if(ominus == 4)

{

FILE \*on4;

on4=fopen("Gulshan O negetive Donor.txt","r");

if (on4)

{

while ((o4 = getc(on4)) != EOF)

putchar(o4);

fclose(on4);

}

}

else if(ominus == 5)

{

FILE \*on5;

on5=fopen("Mirpur O negetive Donor.txt","r");

if (on5)

{

while ((o5 = getc(on5)) != EOF)

putchar(o5);

fclose(on5);

}

}

}

void donate\_blood()

{

int d,a,i;

printf("\n\nThis section is still in the demo phase\n\n");

printf("\nbefore proceeding,please answer the following question:\n");

printf("\nhow long before have you last donated blood?\npick an option from below.\n");

printf("\n1.less than 12 weeks/84 days\n2.more than 12 weeks/84 days\n3.never\nenter(1/2/3):");

scanf("%d",&d);

if(d==1)

{

printf("\n\nIt's not safe for you to donate blood,please wait more than 12 weeks before donating blood again.\n");

printf("\npress 0 to go to main menu\n");

for(i=0;i<5;i++)

{

scanf("%d",&a);

if(a==0)

{

main\_menu();

break;

}

else

{

printf("\nplease press 0 to go back\n");

}

}

}

else if(d==2)

{

printf("\nIt's safe for you to donate blood you may now proceed.\n");

donate2\_blood();

}

else if(d==3)

{

printf("\nIt's safe for you to donate blood you may now proceed.\n");

donate2\_blood();

}

else

{

printf("\ninvalid input\n");

main\_menu();

}

}

void donate2\_blood()

{

int d1;

pic\_loc();

printf("\nyour choice:");

scanf("%d",&d1);

char dataToAppend1[10];

char dataToAppend2[40];

char dataToAppend3[30];

char dataToAppend4[500];

char dataToAppend11[10];

char dataToAppend22[40];

char dataToAppend33[30];

char dataToAppend44[500];

char dataToAppend111[10];

char dataToAppend222[40];

char dataToAppend333[30];

char dataToAppend444[500];

char dataToAppend1111[10];

char dataToAppend2222[40];

char dataToAppend3333[30];

char dataToAppend4444[500];

char dataToAppend11111[10];

char dataToAppend22222[40];

char dataToAppend33333[30];

char dataToAppend44444[500];

if(d1==1)

{

FILE \*fPtr;

fPtr = fopen("new entry.txt", "a");

printf("\nenter your blood group:");

fflush(stdin); // To clear extra white space characters in stdin

fgets(dataToAppend1,10,stdin);

fputs(dataToAppend1, fPtr);

printf("\nenter your name: ");

fflush(stdin);

fgets(dataToAppend2,40,stdin);

fputs(dataToAppend2, fPtr);

printf("\nenter your number:");

fflush(stdin);

fgets(dataToAppend3,30,stdin);

fputs(dataToAppend3, fPtr);

printf("\nenter your address:");

fflush(stdin);

fgets(dataToAppend4,500,stdin);

fputs(dataToAppend4, fPtr);

fclose(fPtr);

printf("\nYou can go to the following places to donate blood:");

printf("\nUttara Central Hospital & Diagnostic Centre");

printf("\nUttara Modern Medical College and Hospital");

}

else if(d1==2)

{

FILE \*fPtr;

fPtr = fopen("new entry.txt", "a");

printf("\nenter your blood group:");

fflush(stdin);

fgets(dataToAppend11,10,stdin);

fputs(dataToAppend11, fPtr);

printf("\nenter your name: ");

fflush(stdin);

fgets(dataToAppend22,40,stdin);

fputs(dataToAppend22, fPtr);

printf("\nenter your number:");

fflush(stdin);

fgets(dataToAppend33,30,stdin);

fputs(dataToAppend33, fPtr);

printf("\nenter your address:");

fflush(stdin);

fgets(dataToAppend44,500,stdin);

fputs(dataToAppend44, fPtr);

fclose(fPtr);

printf("You can go to the following places to donate blood:");

printf("\n\nBashundhara Eye Hospital,Contact,Contact-01775559977");

printf("\n\nBashundhara Ad-din Hospital,Contact-0198886650,Address-Bashundhara Riverview,");

printf("\nDhaka,Bangladesh");

printf("\n\nApollo Hospital,Contact-0255037242,Address:Plot-81,");

printf("\nBlock:E,Bashundhara Residential R/A,Dhaka-1229,Bangladesh\n");

}

else if(d1==3)

{

FILE \*fPtr;

fPtr = fopen("new entry.txt", "a");

printf("\nenter your blood group:");

fflush(stdin);

fgets(dataToAppend111,10,stdin);

fputs(dataToAppend111, fPtr);

printf("\nenter your name: ");

fflush(stdin);

fgets(dataToAppend222,40,stdin);

fputs(dataToAppend222, fPtr);

printf("\nenter your number:");

fflush(stdin);

fgets(dataToAppend333,30,stdin);

fputs(dataToAppend333, fPtr);

printf("\nenter your address:");

fflush(stdin);

fgets(dataToAppend444,500,stdin);

fputs(dataToAppend444, fPtr);

fclose(fPtr);

printf("\nYou can go to the following places to donate blood:");

printf("\na.Lab Aid Hospital");

printf("\nb.Central Hospital Limited");

}

else if(d1==4)

{

FILE \*fPtr;

fPtr = fopen("new entry.txt", "a");

printf("\nenter your blood group:");

fflush(stdin);

fgets(dataToAppend1111,10,stdin);

fputs(dataToAppend1111, fPtr);

printf("\nenter your name: ");

fflush(stdin);

fgets(dataToAppend2222,40,stdin);

fputs(dataToAppend2222, fPtr);

printf("\nenter your number:");

fflush(stdin);

fgets(dataToAppend3333,30,stdin);

fputs(dataToAppend3333, fPtr);

printf("\nenter your address:");

fflush(stdin);

fgets(dataToAppend4444,500,stdin);

fputs(dataToAppend4444, fPtr);

fclose(fPtr);

printf("\na.You can go to the following places to donate blood:");

printf("\nb.United Hospital");

printf("\nc.Shahabuddin Medical College Hospital");

}

else if (d1==5)

{

FILE \*fPtr;

fPtr = fopen("new entry.txt", "a");

printf("\nenter your blood group:");

fflush(stdin);

fgets(dataToAppend11111,10,stdin);

fputs(dataToAppend11111, fPtr);

printf("\nenter your name: ");

fflush(stdin);

fgets(dataToAppend22222,40,stdin);

fputs(dataToAppend22222, fPtr);

printf("\nenter your number:");

fflush(stdin);

fgets(dataToAppend33333,30,stdin);

fputs(dataToAppend33333, fPtr);

printf("\nenter your address:");

fflush(stdin);

fgets(dataToAppend44444,500,stdin);

fputs(dataToAppend44444, fPtr);

fclose(fPtr);

printf("You can go to the following places to donate blood:");

printf("\nMirpur Child Hospital");

printf("\nGalaxy Hospital");

}

}

void don\_info()

{

FILE \*doninfo;

int c;

doninfo=fopen("donation\_importance.txt","r");

if (doninfo)

{

while ((c = getc(doninfo)) != EOF)

putchar(c);

fclose(doninfo);

}

}

void health\_info()

{

FILE \*healthinfo;

int c;

healthinfo=fopen("donation\_rules.txt","r");

if (healthinfo)

{

while ((c = getc(healthinfo)) != EOF)

putchar(c);

fclose(healthinfo);

}

}