|  |
| --- |
|  |
|  |  |
|  | #include <iostream> |
|  | #include<string.h> |
|  | using namespace std; |
|  | class blood\_bank |
|  | { |
|  | public: |
|  | static int bloodgroup[8]; |
|  |  |
|  | }; |
|  | int blood\_bank::bloodgroup[]={0,0,0,0,0,0,0,0}; |
|  |  |
|  | class admin |
|  | { |
|  |  |
|  | public: |
|  |  |
|  | void display(); |
|  |  |
|  | admin() |
|  | { |
|  | char s[20]="suraj"; |
|  | char str[20]; |
|  | cout<<"Enter password:"; |
|  | cin>>str; |
|  | if( strcmp(s,str)==0) |
|  | {cout<<"welcome!!!"<<endl; |
|  | display();} |
|  | else |
|  | cout<<"Please contact Suraj to become an admin"<<endl; |
|  |  |
|  | } |
|  | }; |
|  | // A, O+, B+, AB+, A-, O-, B-, AB- |
|  |  |
|  | void admin::display() |
|  | { |
|  | cout<<"A +ve:"<<blood\_bank::bloodgroup[0]<<endl; |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"B +ve:"<<blood\_bank::bloodgroup[2]<<endl; |
|  | cout<<"AB +ve:"<<blood\_bank::bloodgroup[3]<<endl; |
|  |  |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"AB -ve:"<<blood\_bank::bloodgroup[7]<<endl; |
|  | } |
|  |  |
|  | class patient |
|  | { |
|  | char name[50]; |
|  | char blood\_group[20]; |
|  |  |
|  |  |
|  | public: |
|  |  |
|  | int save(); |
|  | void show(int); |
|  |  |
|  | }; |
|  | // A+, O+, B+, AB+, A-, O-, B-, AB- |
|  |  |
|  | int patient::save() |
|  | { |
|  | int c,n; |
|  |  |
|  | cout<<"Enter your name:"; |
|  | cin>>name; |
|  |  |
|  | cout<<"Enter type of blood group you are looking for:"<<endl; |
|  |  |
|  | cout<<"0 = A positive"<<endl<<"1 = O positive"<<endl<<"2 = B positive"<<endl<< |
|  | "3 = AB positive"<<endl<<"4 = A negative"<<endl<<"5 = O negative"<<endl<< |
|  | "6 = B negative"<<endl<<"7 = AB negative"<<endl; |
|  |  |
|  |  |
|  | cin>>c; |
|  |  |
|  | cout<<"you will be donated with 1 blood packet"<<endl<<"Please login again to get 1 more blood packet"<<endl; |
|  |  |
|  | show(c); |
|  | } |
|  |  |
|  | void patient::show(int c) |
|  | { |
|  | cout<<"Available blood groups compatible with the entered blood group:"<<endl; |
|  | if(c==0) |
|  | { |
|  | cout<<"A +ve:"<<blood\_bank::bloodgroup[0]<<endl; |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  | if(blood\_bank::bloodgroup[0]>0) |
|  | blood\_bank::bloodgroup[0]--; |
|  | else if(blood\_bank::bloodgroup[4]>0) |
|  | blood\_bank::bloodgroup[4]--; |
|  | else if(blood\_bank::bloodgroup[1]>0) |
|  | blood\_bank::bloodgroup[2]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  | } |
|  |  |
|  | else if(c==1) |
|  | { |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  |  |
|  | if(blood\_bank::bloodgroup[1]>0) |
|  | blood\_bank::bloodgroup[1]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  |  |
|  | } |
|  |  |
|  | else if (c==2) |
|  | { |
|  | cout<<"B +ve:"<<blood\_bank::bloodgroup[2]<<endl; |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  | if(blood\_bank::bloodgroup[2]>0) |
|  | blood\_bank::bloodgroup[2]--; |
|  | else if(blood\_bank::bloodgroup[6]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  |  |
|  | else if(blood\_bank::bloodgroup[1]>0) |
|  | blood\_bank::bloodgroup[1]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  | } |
|  |  |
|  | else if (c==3) |
|  | { |
|  | cout<<"A +ve:"<<blood\_bank::bloodgroup[0]<<endl; |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"B +ve:"<<blood\_bank::bloodgroup[2]<<endl; |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"AB +ve:"<<blood\_bank::bloodgroup[3]<<endl; |
|  | cout<<"AB -ve:"<<blood\_bank::bloodgroup[7]<<endl; |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  | if(blood\_bank::bloodgroup[0]>0) |
|  | blood\_bank::bloodgroup[0]--; |
|  | else if(blood\_bank::bloodgroup[4]>0) |
|  | blood\_bank::bloodgroup[4]--; |
|  | else if(blood\_bank::bloodgroup[2]>0) |
|  | blood\_bank::bloodgroup[2]--; |
|  | else if(blood\_bank::bloodgroup[6]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  | else if(blood\_bank::bloodgroup[3]>0) |
|  | blood\_bank::bloodgroup[3]--; |
|  | else if(blood\_bank::bloodgroup[7]>0) |
|  | blood\_bank::bloodgroup[7]--; |
|  | else if(blood\_bank::bloodgroup[1]>0) |
|  | blood\_bank::bloodgroup[1]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  |  |
|  | } |
|  | else if (c==4) |
|  | { |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  | if(blood\_bank::bloodgroup[4]>0) |
|  | blood\_bank::bloodgroup[4]--; |
|  |  |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  |  |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  | } |
|  |  |
|  | else if (c==5) |
|  | { |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  | if(blood\_bank::bloodgroup[6]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  |  |
|  | } |
|  |  |
|  | else if (c==6) |
|  | { |
|  | cout<<"A +ve:"<<blood\_bank::bloodgroup[0]<<endl; |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"B +ve:"<<blood\_bank::bloodgroup[2]<<endl; |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"AB +ve:"<<blood\_bank::bloodgroup[3]<<endl; |
|  | cout<<"AB -ve:"<<blood\_bank::bloodgroup[7]<<endl; |
|  | cout<<"O +ve:"<<blood\_bank::bloodgroup[1]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  |  |
|  |  |
|  | if(blood\_bank::bloodgroup[0]>0) |
|  | blood\_bank::bloodgroup[0]--; |
|  | else if(blood\_bank::bloodgroup[4]>0) |
|  | blood\_bank::bloodgroup[4]--; |
|  | else if(blood\_bank::bloodgroup[2]>0) |
|  | blood\_bank::bloodgroup[2]--; |
|  | else if(blood\_bank::bloodgroup[6]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  | else if(blood\_bank::bloodgroup[3]>0) |
|  | blood\_bank::bloodgroup[3]--; |
|  | else if(blood\_bank::bloodgroup[7]!=0) |
|  | blood\_bank::bloodgroup[7]--; |
|  | else if(blood\_bank::bloodgroup[1]>0) |
|  | blood\_bank::bloodgroup[1]--; |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  | } |
|  |  |
|  | else if(c==7) |
|  | { |
|  | cout<<"A -ve:"<<blood\_bank::bloodgroup[4]<<endl; |
|  | cout<<"B -ve:"<<blood\_bank::bloodgroup[6]<<endl; |
|  | cout<<"O -ve:"<<blood\_bank::bloodgroup[5]<<endl; |
|  | cout<<"AB -ve:"<<blood\_bank::bloodgroup[7]<<endl; |
|  |  |
|  |  |
|  | if(blood\_bank::bloodgroup[4]>0) |
|  | blood\_bank::bloodgroup[4]--; |
|  |  |
|  | else if(blood\_bank::bloodgroup[6]>0) |
|  | blood\_bank::bloodgroup[6]--; |
|  |  |
|  | else if(blood\_bank::bloodgroup[5]>0) |
|  | blood\_bank::bloodgroup[5]--; |
|  |  |
|  | else if(blood\_bank::bloodgroup[7]>0) |
|  | blood\_bank::bloodgroup[7]--; |
|  | else |
|  | cout<<"Compatible blood group not available"; |
|  |  |
|  |  |
|  | } |
|  |  |
|  |  |
|  | } |
|  |  |
|  | class donor |
|  | { |
|  | char name[50]; |
|  | char sex[15]; |
|  |  |
|  | struct date |
|  | { |
|  | int day; |
|  | int month; |
|  | int year; |
|  | }date; |
|  |  |
|  | char blood\_group[20]; |
|  | //DONOR DETAILS |
|  | int phone\_no[15]; |
|  | public: |
|  |  |
|  | int save(); |
|  | int display(); |
|  |  |
|  | int x,c; |
|  |  |
|  |  |
|  | }; |
|  |  |
|  |  |
|  | int donor::save() |
|  | { |
|  | cout<<"Enter your name:"; |
|  | cin>>name; |
|  |  |
|  | cout<<"Enter your sex:"; |
|  | cin>>sex; |
|  |  |
|  | cout<<"Enter date(DD MM YY):"; |
|  | cin>>date.day; |
|  | cin>>date.month; |
|  | cin>>date.year; |
|  |  |
|  |  |
|  | // A, O+, B+, AB+, A-, O-, B-, AB- |
|  |  |
|  | cout<<"Enter type of blood group you are donating:"<<endl; |
|  |  |
|  | cout<<"0 = A positive"<<endl<<"1 = O positive"<<endl<<"2 = B positive"<<endl<< |
|  | "3 = AB positive"<<endl<<"4 = A negative"<<endl<<"5 = O negative"<<endl<< |
|  | "6 = B negative"<<endl<<"7 = AB negative"<<endl; |
|  |  |
|  | cin>>c; |
|  |  |
|  | cout<<"how many packets of blood are you donating:"; |
|  | cin>>x; |
|  |  |
|  | blood\_bank::bloodgroup[c]+=x; |
|  | char ch; |
|  | cout<<"Do you want your information to be displayed now(Y/N)"; |
|  | cin>>ch; |
|  |  |
|  | if(ch=='Y'||ch=='y') |
|  | donor::display(); |
|  |  |
|  | } |
|  |  |
|  |  |
|  | int donor::display() |
|  | { |
|  | cout<<"name:"; |
|  | cout<<name<<endl; |
|  |  |
|  | cout<<"Date(DD MM YY):"; |
|  | cout<<date.day<<" "; |
|  | cout<<date.month<<" "; |
|  | cout<<date.year<<endl; |
|  |  |
|  | cout<<"Blood group:"; |
|  |  |
|  | switch(c) |
|  | { |
|  | // A, O+, B+, AB+, A-, O-, B-, AB- |
|  | case 0: |
|  | cout<<"0 = A positive"<<endl; |
|  | break; |
|  | case 1: |
|  | cout<<"1 = O positive"<<endl; |
|  | break; |
|  | case 2: |
|  | cout<<"2 = B positive"<<endl; |
|  | break; |
|  | case 3: |
|  | cout<<"3 = AB positive"<<endl; |
|  | break; |
|  | case 4: |
|  | cout<<"4 = A negative"<<endl; |
|  | break; |
|  | case 5: |
|  | cout<<"5 = O negative"<<endl; |
|  | break; |
|  | case 6: |
|  | cout<<"6 = B negative"<<endl; |
|  | break; |
|  | case 7: |
|  | cout<<"7 = AB negative"<<endl; |
|  | } |
|  |  |
|  | cout<<"Packets of blood:"<<x<<endl; |
|  |  |
|  | } |
|  |  |
|  | int main() |
|  | { |
|  | int i=0,j=0; |
|  | donor a[100]; |
|  | patient b[50]; |
|  |  |
|  | int c=0; |
|  |  |
|  | while(c!=4) |
|  | { |
|  |  |
|  |  |
|  | cout<<"Enter 1 if you are the admin , \n 2 if you are a donor ,\n 3 if you are a patient or \n 4 if you want to exit:"; |
|  | cin>>c; |
|  | switch(c) |
|  | { |
|  |  |
|  |  |
|  | case 4: |
|  | break; |
|  |  |
|  | case 1: |
|  | { |
|  | admin t; |
|  | char c; |
|  | break; |
|  | } |
|  |  |
|  | case 2: |
|  | { |
|  | int k; |
|  | static int i=0; |
|  | cout<<"welcome donor!!!"<<endl; |
|  | cout<<"Please enter 1 if you want to enter your information:"; |
|  | cin>>k; |
|  | if(k==1) |
|  | a[i++].save(); |
|  | else if (k==2) |
|  | a[i].display(); |
|  |  |
|  | break; |
|  | } |
|  |  |
|  | case 3: |
|  | { |
|  | static int i=0; |
|  | cout<<"Welcome patient!!!"<<endl; |
|  | b[i++].save(); |
|  | break; |
|  | } |
|  | } |
|  | } |
|  | return 0; |
|  | } |