

HOSPITAL MANAGEMENT SYSTEM

Source Code :

```
#include<iostream>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
#include<fstream>
using namespace std;
struct patient
{
    long long mob_no;
    string firstname;
    string lastname;
    int age;
    char blood_grp[6];
    char gender;
    patient*next;
};
class hospital_management
{
    patient *front,*rear;
    int fee,med_fee;
    public:
    hospital_management    ()
    {
        front=NULL;
        rear=NULL;
    }
    patient input();
    void insertatend();
    void insertatbeg();
    void getpatientout();
```

```

void displaypatients();

char deptname[50];
void total_bill();
friend void total_exp(hospital_management);
};

int convertnumber()
{
    char b[20];
    cin.getline(b,sizeof(b));
    return atoi(b);
}

void deptmenu (hospital_management * q)
{
    int choice = 0, success;
    patient p;
    while (choice != 5)
    {
        system("cls");
        cout<<"\n\n\tWelcome To depts : " << q->deptname;
        cout<<"\n\t\t[1] Add normal patient\n";
        cout<<"\t\t[2] Add critically ill patient\n";
        cout<<"\t\t[3] Take patient to Doctor\n";
        cout<<"\t\t[4] Display list\n";
        cout<<"\t\t[5] Change depts or exit\n";
        cout<<"\n\tPlease enter your choice : ";
        choice=convertnumber();

        switch (choice)
        {
            case 1:    q->insertatend();
                      cout << "\n\tPress any key";
                      getch();

```

```

        break;

    case 2: q->insertatbeg();
            cout << "\n\tPress any key";
            getch();
            break;

    case 3: q->getpatientout();
            cout<<"\n\tPress any key";
            getch();
            break;

    case 4: system("cls");
            q->displaypatients();
            cout<<"\n\tPress any key";
            getch();
            break;
    }
}
}

void output(patient *p)
{
    char arr1[20],arr2[20],arr3[3],arr4[20];
    char arr5[20],arr6[20];

    ifstream obj("hospital.txt");
    obj.getline(arr1,20);
    obj.getline(arr2,20);
    obj.getline(arr3,20);
    obj.getline(arr4,20);
    obj.getline(arr5,20);
    obj.getline(arr6,20);
    cout<<"\n\nPatient data:";
    cout<<"\n\nFirst Name      : "<<arr1;
    cout<<"\nLast Name       : "<<arr2;

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        cout<<"\nGender      : "<<arr3;
        cout<<"\nAge        : "<<arr5;
        cout<<"\nBlood Group   : "<<arr4;
        cout<<"\nMobile Number : "<<arr6;
        obj.close();
    }

```

```

void hospital_management:: insertatend()
{
    patient*p=new patient();
    *p=input();
    if(p->mob_no==0)
        return;

    if(front==NULL)
    {
        front=p;
        rear=p;
        p->next=NULL;
    }
    else
    {
        p->next=NULL;
        rear->next=p;
        rear=p;
    }
    system("cls");
    cout << "\n\tPatient added:";
    output(p);
}

```

```

void hospital_management :: insertatbeg()
{
    patient*p=new patient();
    *p=input();

```

```

if(p->mob_no==0)
return;

if(front==NULL)

{
    front=p;
    rear=p;
    p->next=NULL;
}
else
{
    p->next=front;
    front=p;
}
system("cls");
cout << "\n\tPatient added:";
output(p);
}

void hospital_management :: getpatientout()
{
    system("cls");
    if(front==NULL)
    {
        cout<<"\n\tNo Patient to operate";
    }
    else
    {
        patient*p=new patient();
        p=front;
        front=front->next;
        cout << "\n\tPatient to operate:";
        output(p);
    }
}

```

```
}
```

```
void hospital_management:: displaypatients()
```

```
{
```

```
    if(front==NULL)
```

```
    {
```

```
        cout<<"\n\tNo patient";
```

```
    }
```

```
    patient*p=new patient;
```

```
    p=front;
```

```
    while(p!=NULL)
```

```
    {
```

```
        cout<<"\nPatient data:";
```

```
            cout<<"\nFirst Name      : "<<p->firstname;
```

```
            cout<<"\nLast Name       : "<<p->lastname;
```

```
            cout<<"\nGender         : "<<p->gender;
```

```
            cout<<"\nAge           : "<<p->age;
```

```
            cout<<"\nBlood Group    : "<<p->blood_grp;
```

```
            cout<<"\nMobile Number   : "<<p->mob_no;
```

```
            cout<<"\n**\n";
```

```
            p=p->next;
```

```
    }
```

```
    cout<<"\n";
```

```
}
```

```
patient hospital_management :: input()
```

```
{
```

```
    int flag=0;
```

```
    patient *p=new patient();
```

```
    cout << "\n\tPlease enter data for patient\n";
```

```
    cout<<"\n\tFirst name   : ";
```

```
    getline(cin,p->firstname);
```

```
    cout << "\tLast name    : ";
```

```
    getline(cin,p->lastname);
```

```
    again :
```

```

    cout << "\tBlood Group   : ";
    cin>>p->blood_grp;
    if((strcmp(p->blood_grp,"A+")==0) || (strcmp(p->blood_grp,"a+")==0) || (strcmp(p->blood_grp,"A-")==0) || (strcmp(p->blood_grp,"a-")==0) ||
        (strcmp(p->blood_grp,"B+")==0) || (strcmp(p->blood_grp,"b+")==0) || (strcmp(p->blood_grp,"B-")==0) || (strcmp(p->blood_grp,"b-")==0) ||
        (strcmp(p->blood_grp,"O+")==0) || (strcmp(p->blood_grp,"o+")==0) || (strcmp(p->blood_grp,"O-")==0) || (strcmp(p->blood_grp,"o-")==0) ||
        (strcmp(p->blood_grp,"AB+")==0) || (strcmp(p->blood_grp,"ab+")==0) || (strcmp(p->blood_grp,"AB-")==0) || (strcmp(p->blood_grp,"ab-")==0))
        flag=1;
    if(flag==0)
    {
        cout<<"\nWrong Entry...Enter a valid Blood Group..Try Again..";
        goto again;

    }
    cout<<"\tGender           : (m/f)";
    cin>>p->gender;
    cout<<"\tAge             : ";
    cin>>p->age;
    cout<<"\tMobile number   : ";
    cin>>p->mob_no;
    ofstream myfile("hospital.txt");
    myfile<<"first name: "<<p->firstname<<endl<<"last name: "<<p->lastname<<endl<<"blood group: "<<p->blood_grp<<endl<<"gender: "<<p->gender<<endl<<"age: "<<p->age<<endl<<"mobile_no.: "<<p->mob_no<<endl;
    return *p;
}

```

```

void hospital_management::total_bill()
{
    cout<<"docter fees: ";
    cin>>fee;
    cout<<"medicine bill: ";
    cin>>med_fee;
    ofstream myfile("hospital.txt",ios::app);
    myfile<<"docter fees: "<<fee<<endl<<"medicine bill:
"<<med_fee<<endl;
    myfile.close();
}

void total_exp(hospital_management obj)
{
    int total;
    total=obj.fee+obj.med_fee;
    cout<<"the total expenditure:";
    cout<<total;
    ofstream myfile("hospital.txt",ios::app);
    myfile<<"the total expenditure:"<<total<<endl;
    myfile.close();
}

int main ()
{
    int i, choice = 0;
    hospital_management depts[4];
    hospital_management p1;

    while(choice!=5)
    {
        strcpy(depts[0].deptname,"General Clinic\n");
        strcpy(depts[1].deptname,"Heart Clinic\n");
        strcpy(depts[2].deptname,"Lung Clinic\n");
        strcpy(depts[3].deptname,"Plastic Surgery\n");
    }
}

```

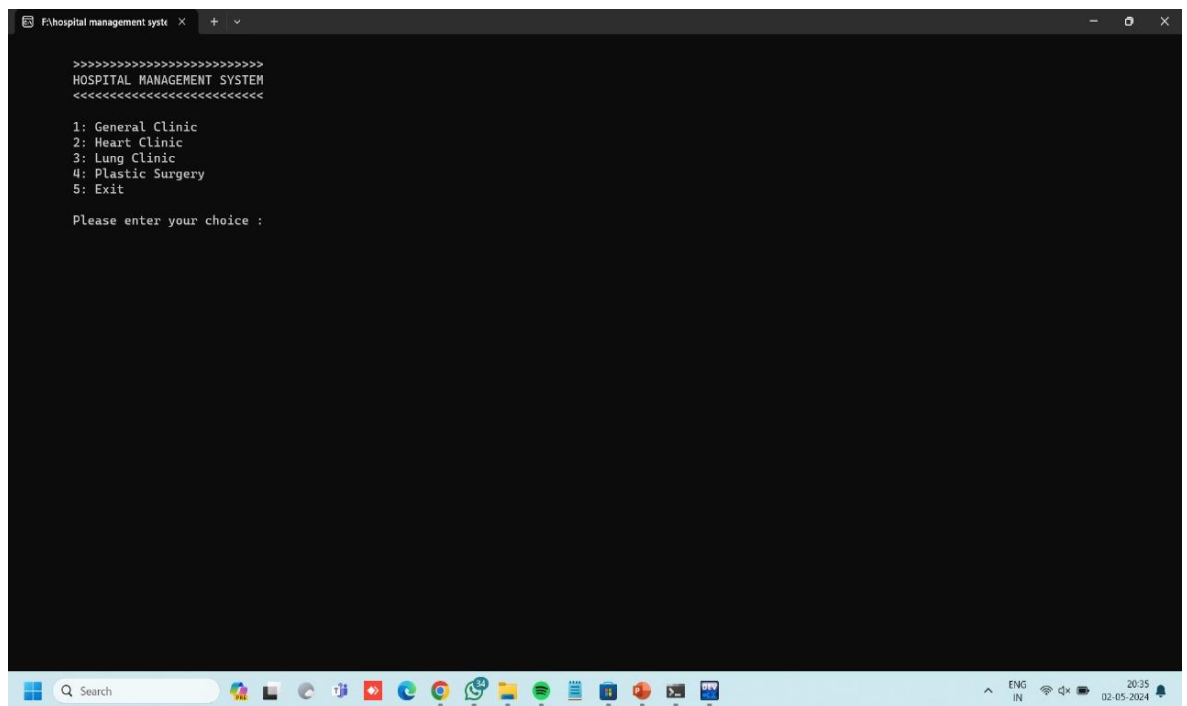
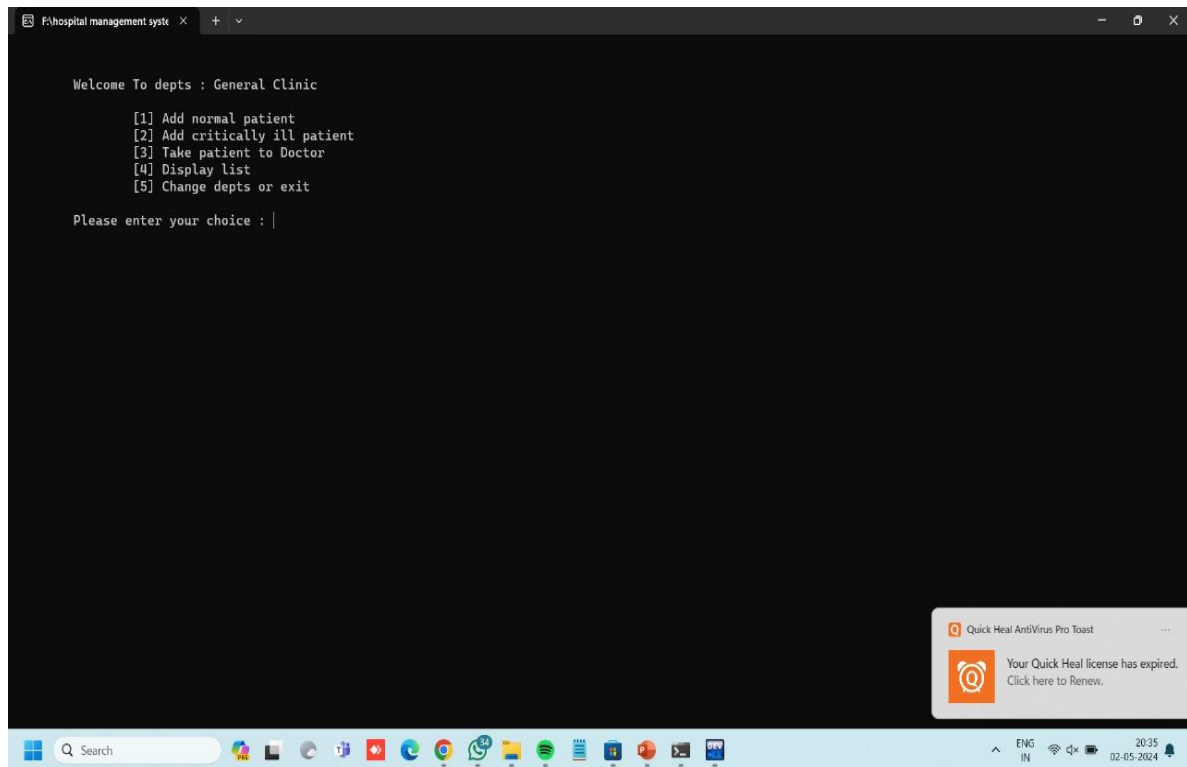


```
system("cls");
cout<<"\n\t>>>>>>>>>>>>>>>>>>>>>>>>>";
cout<<"\n\tHOSPITAL MANAGEMENT SYSTEM\t";
cout<<"\n\t<<<<<<<<<<<<<<<<<<<<<<<\n\n";
for (i = 0; i < 4; i++)
{
    cout<<"\t"<<(i+1)<<": "<<depts[i].deptname;
}
cout<<"\t5: Exit";
cout<<"\n\n\tPlease enter your choice : ";
choice=convertnumber();
if(choice>=1 && choice<=4)
{
    deptmenu(&depts[choice-1]);
}

}

cout<<"file write operation is perfomed
succesfully"<<endl;
exit(0);
}
```

OUTPUT :



```
F:\hospital management syste X + v
Patient added:
Patient data:
First Name      : first name: yash
Last Name       : od group: AB+
Gender          : blood group: AB+
Age             : age: 20
Blood Group     : gender: m
Mobile Number   : mobile_no.: 8767021
Press any key|
```

```
F:\hospital management syste X + v
Welcome To depts : General Clinic
[1] Add normal patient
[2] Add critically ill patient
[3] Take patient to Doctor
[4] Display list
[5] Change depts or exit
Please enter your choice : 1
Please enter data for patient
First name      : yash
Last name       : gaikwad
Blood Group     : AB+
Gender          : (m/f)m
Age             : 20
```