The Indian School, Bahrain

Computer Science Project (2019-20)

Class XII

Hospital Management

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CERTIFICATE

This is to certify that **Nithin Bharath** of class XII-J of The Indian School, Bahrain has completed the computer science project on “Hospital Management”, as part of the practical exam for the year 2019-20 conducted as per CBSE syllabus.

SIGNATURE OF TEACHER

SIGNATURE OF EXAMINER

Table of Contents

INTRODUCTION TO C++

C++ is a general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language, or "C with Classes". The language has expanded significantly over time, and modern C++ has object-oriented, generic, and functional features in addition to facilities for low-level memory manipulation. It is almost always implemented as a compiled language, and many vendors provide C++ compilers, including the Free Software Foundation, LLVM, Microsoft, Intel, Oracle, and IBM, so it is available on many platforms.

C++ was designed with a bias toward system programming and embedded, resource-constrained software and large systems, with performance, efficiency, and flexibility of use as its design highlights. C++ has also been found useful in many other contexts, with key strengths being software infrastructure and resource-constrained applications, including desktop applications, servers (e.g. e-commerce, Web search, or SQL servers), and performance-critical applications (e.g. telephone switches or space probes).

The C++ language has two main components: a direct mapping of hardware features provided primarily by the C subset, and zero-overhead abstractions based on

those mappings. Stroustrup describes C++ as "a light-weight abstraction programming language designed for building and using efficient and elegant abstractions" and "offering both hardware access and abstraction is the basis of C++. Doing it efficiently is what distinguishes it from other languages."

C++ introduces object-oriented programming (OOP) features to C. It offers classes, which provide the four features commonly present in OOP (and some non-OOP) languages: abstraction, encapsulation, inheritance, and polymorphism. One distinguishing feature of C++ classes compared to classes in other programming languages is support for deterministic destructors, which in turn provide support for the Resource Acquisition is Initialization (RAII) concept.

SYSTEM ANALYSIS

Hospital Management System is based on a concept of recording patient records and their diagnosis information. Before stepping into the main system a user has to pass through a login system to get access, then only the user can add a new patient record, diagnosis information and check the full history of the patient.

Talking about the features of the Hospital Management System, after logging in as a user he/she can add new patient records, diagnosis information, check patient information, and view information about the hospital.

***Functions used:**

1) **New Patients(): To add new patient records into the file which includes patient name, CPR number,mobile number etc;**

2) **Doctor report(): searches and displays the detail of the patients from the file along with the list of doctors.**

3) **Facilities(): displays the available facilities in the hospital such as ambulance services, Operation theatre ,X-ray checkup facility,etc.**

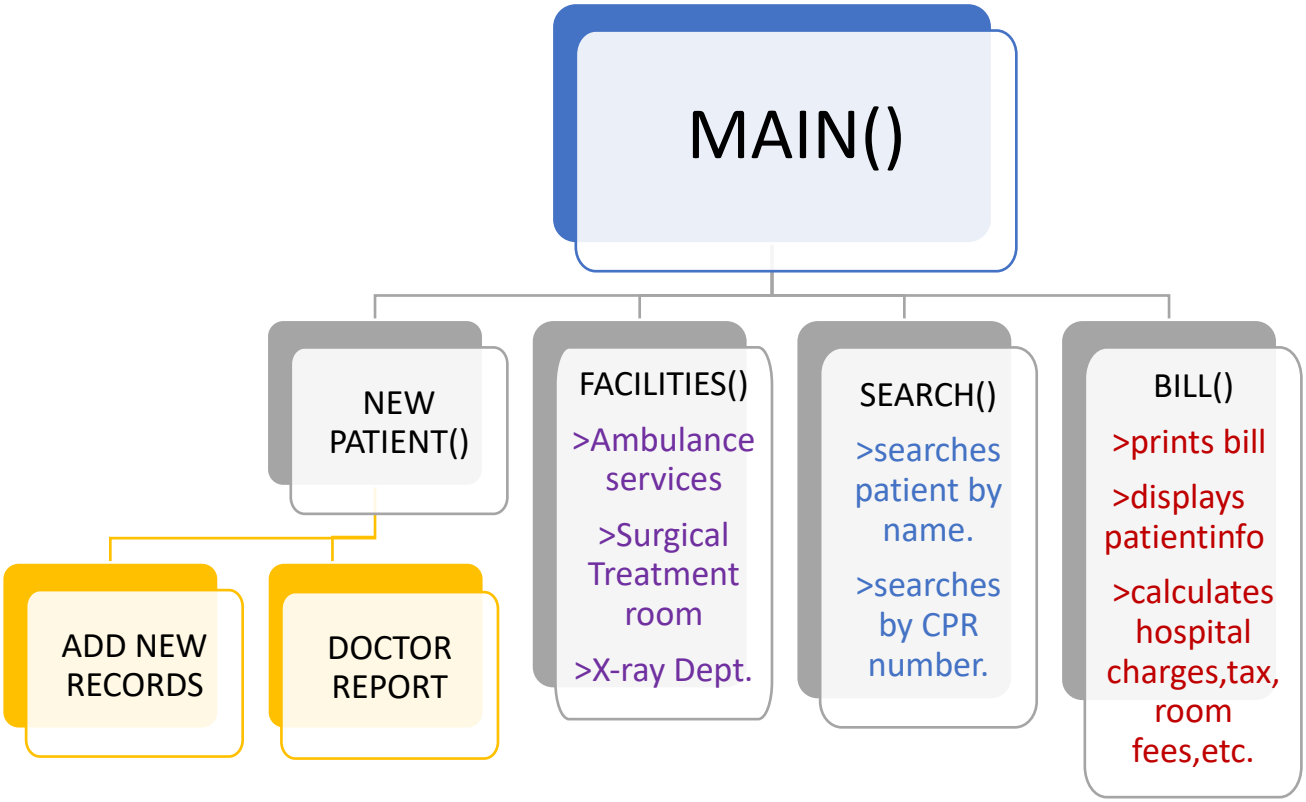
4) **Search(): function allows user to input cpr, name and patient number and searches the file for the required patient's records and displays patient's info.**

5) **Bill(): function inputs the patient's name and prints the doctor report, and calculates and prints the total cost which includes consultation fees, room charges, doctor fee,tax,etc.**

*Header files used:

1) IOSTREAM.H
2) FSTREAM.H
3) STDLIB.H
4) CTYPE.H
5) PROCESS.H
6) STRING.H
7) CONIO.H
8) IOMANIP.H
9) MATH.H
10) STDIO.H

SYSTEM DESIGN



#Source Code:

```
//user name:abin , password:pass
#include<iostream.h>
#include<fstream.h>
#include<stdlib.h>
#include<ctype.h>
#include<process.h>
#include<string.h>
#include<conio.h>
#include<iomanip.h>
#include<math.h>
#include<stdio.h>
void delay();
void loadcircle();
void design1();
void design2();
void refresh();
void clear();
void clear2();
void clear3();
void tic(long);
void load();
void display();
void pass();
struct doctor
{
char name[20];
char id[10];
}doc[5]={{"Alan
Walker","A11"},{"Marshmello","B22"},{"Chainsmokers","C33"},{"Illenium","D44"}};
struct medicine
{
char name[20];
int qnt;
float prc;
};
class bill
{
```

```
public:
char ill[20];
medicine med[7];
int medprice;
int admit;
float tax;
float total;
float subtotal;
float balance,paid;
int c,val;//counter,check variable
char n;
void prnt();
bill()
{
balance=0;
paid=0;
total=0.0;
tax=0.0;
subtotal=10.000;
val=0;
admit=0;
strcpy(med[0].name,"Paracetamol");med[0].qnt=0;med[0].prc=3.000;
strcpy(med[1].name,"Cough syrup");med[1].qnt=0;med[1].prc=3.500;
strcpy(med[2].name,"Antibiotics");med[2].qnt=0;med[2].prc=2.500;
strcpy(med[3].name,"Antipyretics");med[3].qnt=0;med[3].prc=2.000;
strcpy(med[4].name,"Mood Stabilizers");med[4].qnt=0;med[4].prc=5.500;
strcpy(med[5].name,"Analgesics");med[5].qnt=0;med[5].prc=3.000;
strcpy(med[6].name,"Custom");med[6].qnt=0;med[6].prc=0.000;
}
void bdisplay();
void binput();
void cal();
};
void bill::cal()
{
for(int i=0;i<7;i++)
{
if(med[i].qnt>0)
{
subtotal+=med[i].qnt*med[i].prc;
```

```
}
}
if(admit>0)
subtotal+=admit*8.000;
balance=paid-subtotal;
}
void bill::binput()
{
c=0;
gotoxy(1,7);
cout<<" Illness:";
gets(ill);
cout<<" Medicine";
for(int p=0;p<7;p++)
{
gotoxy(27,9+p);
cout<<p+1<<"."<<med[p].name<<"("<<med[p].qnt<<")";
}
char a;
int i=9;

while(a!='*')
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n            USE '*' TO SAVE AND '+' TO ADD MORE              ";
gotoxy(25,i);
cout<<"->";
a=getch();
if(a=='s'&&i<15)
{
gotoxy(25,i);
cout<<" ";
i++;
gotoxy(25,i);
cout<<"->";
}
else if(a=='w'&&i>9)
{
gotoxy(25,i);
```

```
cout<<" ";
i--;
gotoxy(25,i);
cout<<"->";
}
else if(a!='+')
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                ===>INVALID KEY<===                  ";
tic(55000000);
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n            USE '*' TO SAVE AND '+' TO ADD MORE              ";
}
else if(a=='+')
{
if(i!=15||c==1)
med[i-9].qnt++;
if(i==15&&c==0)
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                TYPE THE MEDICINE NAME                  ";
tic(55000000);
gotoxy(27,15);
cout<<"7.      ";
gotoxy(29,15);
gets(med[6].name);
c=1;
}
for(p=0;p<7;p++)
{
gotoxy(27,9+p);
cout<<p+1<<"."<<med[p].name<<"("<<med[p].qnt<<")";
}
}
else if(a=='*')
```

```
{gotoxy(25,i);
cout<<" ";}
}
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                                        ";
gotoxy(1,10);
cout<<"Days to be admitted:";
cin>>admit;
val=1;
}
void bill::bdisplay()
{
cout<<"\n Illness:"<<ill;
for(int i=0;i<7;i++)
{
if(med[i].qnt>0)
cout<<"\n "<<med[i].name<<":"<<med[i].qnt;
}
cout<<"\n No. of days of admittion:"<<admit;
}
class patient:public bill
{
public:
long cpr,mob;
int pno,age;
int rno;
char gender;
char pname[20];
char docid[10];
void input()
{
cout<<"\nPatient's details\n";
cout<<"Patient No.:";
cin>>pno;
cout<<"Name:";
gets(pname);
cout<<"CPR No.:";
cin>>cpr;
cout<<"Mobile No.:";
```

```
cin>>mob;
cout<<"Age:";
cin>>age;
cout<<"Gender:";
cin>>gender;
gotoxy(34,11);
cout<<"|--------------------|--------------------|"<<endl;gotoxy(34,12);
cout<<"|    DOCTOR    |    DOCTOR ID    |"<<endl;gotoxy(34,13);
cout<<"|--------------------|--------------------|"<<endl;gotoxy(34,14);
cout<<"| Alan Walker    |    A11    |"<<endl;gotoxy(34,15);
cout<<"|--------------------|--------------------|"<<endl;gotoxy(34,16);
cout<<"| Marshmello    |    B22    |"<<endl;gotoxy(34,17);
cout<<"|--------------------|--------------------|"<<endl;gotoxy(34,18);
cout<<"| Chainsmokers    |    C33    |"<<endl;gotoxy(34,19);
cout<<"|--------------------|--------------------|"<<endl;gotoxy(34,20);
cout<<"| Illenium    |    D44    |"<<endl;gotoxy(34,21);
cout<<"|--------------------|--------------------|"<<endl;
gotoxy(1,15);
cout<<"Doctor ID:";
gets(docid);
}
void change()
{
pno=000;
strcpy(pname,"000000");
cpr=000;
age=000;
mob=000;
gender=0;
strcpy(docid,"000000");
}
void display();
void prnt();
void report(int f);
};
void patient::report(int f)
{


gotoxy(6,f);
```

```
cout<<pno;
gotoxy(13,f);
cout<<pname;
gotoxy(30,f);
cout<<cpr;
gotoxy(44,f);
cout<<mob;
gotoxy(58,f);
if(val==1)
cout<<ill;
if(paid>=subtotal)
{gotoxy(73,f);cout<<"PAID";}
else
{gotoxy(70,f);cout<<"NOT PAID";}
}
void patient::prnt()
{
gotoxy(10,5);cout<<pname;
gotoxy(35,5);cout<<age;
gotoxy(48,5);cout<<gender;
gotoxy(61,5);cout<<cpr;
gotoxy(12,7);
for(int i=0;i<4;i++)
if(strcmpi(docid,doc[i].id)==0)
cout<<doc[i].name;
i=13;
if(admit>0)
{
gotoxy(14,i);cout<<"Admitted("<<admit<<" Days)";
gotoxy(40,i);cout<<'-';
gotoxy(47,i);cout<<'-';
gotoxy(55,i);cout<<admit*8.000;
i++;
}
for(int p=0;p<7;p++)
{

if(med[p].qnt>0)
{
gotoxy(14,i);cout<<med[p].name;
```

```
gotoxy(40,i);cout<<med[p].qnt;
gotoxy(47,i);cout<<'-';
gotoxy(55,i);cout<<med[p].qnt*med[p].prc;
i++;
}
}
gotoxy(70,21);
if(paid==0)
{cal();}
cout<<subtotal<<"BD";
gotoxy(69,22);
if(paid==0)
{
cin>>paid;
}
else
cout<<paid;
gotoxy(72,23);
cout<<paid-subtotal;
}
void patient::display()
{
cout<<" Patient No.:"<<pno;
cout<<"\n Name:"<<pname;
cout<<"\n CPR No.:"<<cpr;
cout<<"\n Mobile No.:"<<mob;
cout<<"\n Gender:"<<gender;
cout<<"\n Doctor ID.:"<<docid;
for(int i=0;i<4;i++)
{
if(strcmpi(docid,doc[i].id)==0)
cout<<"\n Doctor Name:"<<doc[i].name;
}
if(val==1)
bdisplay();
}
void homescr()
{
gotoxy(1,1);
cout<<"################################################################
####################";
```

```
cout<<"#                NASA HOSPITAL          _____________#";
cout<<"#                ===============        |TEL:1321854851#";
cout<<"#########################################################################
####################";
cout<<"                ";
cout<<"                ";
cout<<"                ";
cout<<"                ";
cout<<"                ";
cout<<"                ";
gotoxy(1,23);
cout<<"#########################################################################
####################";
cout<<"\n                                ";
gotoxy(3,5);
}
void homescr2()
{
for(int q=1;q<24;q++)
{
gotoxy(1,q);cout<<'#';
gotoxy(90,q);cout<<'#';
}
gotoxy(1,1);
cout<<"#########################################################################
####################";
cout<<"#                NASA HOSPITAL          _____________#";
cout<<"#                ===============        |TEL:1321854851#";
cout<<"#########################################################################
####################";
gotoxy(1,23);
cout<<"#########################################################################
####################";
cout<<"\n                                ";
gotoxy(3,5);
}
void doctoreport()
{
clear3();
patient srch;
char name[20];
```

```
fstream srchfile;
srchfile.open("hosit.dat",ios::in|ios::out|ios::binary);
gotoxy(5,6);
cout<<"Enter the Patient name:";
gets(name);
while(!srchfile.eof())
{
srchfile.read((char*)&srch,sizeof(srch));
if(strcmp(srch.pname,name)==0)
{
if(srch.val!=1)
{
srch.binput();
srchfile.seekp(srchfile.tellg()-sizeof(srch));
srchfile.write((char*)&srch,sizeof(srch));
goto a1;
}
}
}
clrscr();
homescr();
gotoxy(23,12);
cout<<"PATIENT NOT FOUND/REPORT ALREADY ENTERED";
a1:
tic(190000000);
homescr();
}
void billing()
{
clear3();
patient srch;
char name[20];
fstream srchfile;
srchfile.open("hosit.dat",ios::out|ios::in|ios::binary);
gotoxy(5,6);
cout<<"Enter the Patient name:";
gets(name);
while(!srchfile.eof())
{
srchfile.read((char*)&srch,sizeof(srch));
```

```
if(strcmp(srch.pname,name)==0)
{
if(srch.val==1)
{
cout<<"
##################################################################
#############\n";
cout<<" #           NASA MULTI SPECIALTY MEDICAL HOSPITAL           #\n";
cout<<" #                  Billing                  #\n";
cout<<"
##################################################################
#############\n";
cout<<" # Name:          # Age:  # Gender:  # CPR No:       #   #\n";
cout<<"
##################################################################
#######   #\n";
cout<<" # Doctor:        #                          #\n";
cout<<" ############################                          #\n";
cout<<" #|-----------------------------------------------------|         #\n";
cout<<" # | Sl No|    Description     | Qty | VAT |Amount BD|          #\n";
cout<<" #|-----------------------------------------------------|         #\n";
cout<<" # | 01 | Consultation Charge  | - |  -  | 10  |         #\n";
cout<<" # | 02 |             |   |    |     |         #\n";
cout<<" # | 03 |             |   |    |     |         #\n";
cout<<" # | 04 |             |   |    |     |         #\n";
cout<<" # | 05 |             |   |    |     |         #\n";
cout<<" # | 06 |             |   |    |     |         #\n";
cout<<" # | 07 |             |   |    |     |###################\n";
cout<<" # | 08 |             |   |    |     |#    CASH     #\n";
cout<<" # | 09 |             |   |    |     |#================#\n";
cout<<" # | 10 |             |   |    |     |# Total:      #\n";
cout<<" # | 11 |             |   |    |     |# Paid:       #\n";
cout<<" # | 12 |             |   |    |     |# Balance:    #\n";
cout<<"
##################################################################
#############\n";
srch.prnt();
srchfile.seekp(srchfile.tellg()-sizeof(srch));
srchfile.write((char*)&srch,sizeof(srch));
if(getch())
{
return;
```

```
}
}
}
}
}
void fullrecord()
{
gotoxy(1,24);
cout<<"            PRESS ANY KEY TO GO BACK";
int f=10;
patient p;
gotoxy(1,1);
cout<<"#################################################################
####################";
cout<<"#                 NASA HOSPITAL          _____________#";
cout<<"#                ===============         |TEL:1321854851#";
cout<<"#################################################################
####################";
cout<<"                  RECORDS                  ";
cout<<"
#################################################################
#############";
cout<<"# PATIENT#   NAME    #  CPR NO.  # PHONE NO #  ILLNESS  #  BILL  #";
cout<<"#  ID  #       #       #       #       # STATUS #";
cout<<"
#################################################################
#############";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
cout<<"#    #       #       #       #       #     #";
```

```
cout<<"
################################################################################
############ ";
gotoxy(1,24);
cout<<"
################################################################################
############";
cout<<"                                        ";
fstream file;
file.open("hosit.dat",ios::in|ios::binary);
while(file.read((char*)&p,sizeof(p)))
{
p.report(f);
f++;
}
getch();
}
void newpatient()
{
clear3();
gotoxy(1,23);
cout<<"################################################################################
####################";
cout<<"\n                                       ";
patient p;
ofstream file;
file.open("hosit.dat",ios::app|ios::binary);
go:clrscr();homescr();gotoxy(1,7);
p.input();
cout<<"\nDO YOU WISH TO CONFIRM THE INFO?";
gotoxy(1,23);
cout<<"################################################################################
####################";
cout<<"\n       USE 'A' AND 'D'TO CHANGE OPTION AND 'H' FOR HOME            ";
char a='a';
int ck=0;
while(a!=13)
{
a=getch();
if(a=='a')
{
gotoxy(15,18);
```

```
cout<<"YES";
ck=1;
}
else if(a=='d')
{
gotoxy(15,18);
cout<<"NO ";
ck=2;
}
else if(a=='h')
{
p.change();
goto by;
}
else
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              ->USE ENTER KEY TO CONFIRM<-                ";
}
}
if(a==13&&ck==2)
{
clear3();
p.change();
goto go;
}
else
{gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              ->USE ENTER KEY TO CONFIRM<-                ";
a='s';
}
file.write((char*)&p,sizeof(p));
file.close();
clear3();
loadcircle();
gotoxy(17,13);
cout<<"          DETAILS SAVED";
```

```
tic(500000000);
by:
clear3();
}
void search()
{
homescr();
gotoxy(9,6);
cout<<"SEARCH TYPE:";
char a='a';
int ck=2;
while(a!=13)
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n               PRESS 'A'AND 'D' TO CHANGE TYPE             ";
a=getch();
if(a=='a'&&ck>1)
{
ck--;
}
else if(a=='d'&&ck<3)
{
ck++;
}
else if(a!=13)
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                 ===>INVAID KEY<===                    ";
tic(55000000);
}
if(ck==1)
{gotoxy(22,6); cout<<" Patient's Name  ";}
else if(ck==2)
{gotoxy(22,6); cout<<" Patient's CPR No.";}
else if(ck==3)
{gotoxy(22,6); cout<<" Patient ID/No.  ";}
}
```

```
patient find,srch;
fstream srchfile;
srchfile.open("hosit.dat",ios::out|ios::in|ios::binary);
cout<<"\n    |---------------------| ";
cout<<"\nSEARCH:|              | ";
cout<<"\n    |---------------------| ";
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                                        ";
gotoxy(10,8);
if(ck==1)      //name
{
gets(find.pname);
while(!srchfile.eof())
{
srchfile.read((char*)&srch,sizeof(srch));
if(strcmp(srch.pname,find.pname)==0)
{
clrscr();
homescr();
gotoxy(1,6);
srch.display();
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              Press 'H' to go to Home Screen               ";
while(1)
if(getch()=='h')
{
goto a1;
}
}
}
clrscr();
homescr();
gotoxy(29,12);
cout<<"PATIENT NOT FOUND";
a1:
}
else if(ck==2)   //cpr
```

```
{
cin>>find.cpr;
while(!srchfile.eof())
{
srchfile.read((char*)&srch,sizeof(srch));
if(srch.cpr==find.cpr)
{
clrscr();
homescr();
gotoxy(1,6);
srch.display();
gotoxy(1,23);
cout<<"##############################################################
####################";
cout<<"\n              Press 'H' to go to Home Screen                ";
while(1)
if(getch()=='h')
{
goto a2;
}
}
}
clrscr();
homescr();
gotoxy(29,12);
cout<<"PATIENT NOT FOUND";
a2:
}
else if(ck==3)
{
cin>>find.pno;
while(!srchfile.eof())
{
srchfile.read((char*)&srch,sizeof(srch));
if(find.pno==srch.pno)
{
clrscr();
homescr();
gotoxy(1,6);
srch.display();
gotoxy(1,23);
```

```
cout<<"##################################################################
####################";
cout<<"\n              Press 'H' to go to Home Screen              ";
while(1)
if(getch()=='h')
{
goto a3;
}
}
}
clrscr();
homescr();
gotoxy(29,12);
cout<<"PATIENT NOT FOUND";
a3:
}
tic(150000000);
clear3();
}
void refresh()
{
randomize();
int j=0,k=0,i;
for(i=0;i<10000;i++)
{
j=random(79+1);
k=random(25+1);
gotoxy(j,k);
cout<<"*";;
tic(150000);
}
gotoxy(1,1);
for(i=0;i<1999;i++)
{
cout<<"*";;
}
}
void logo()
{
for(int i=12,j=13;i>=1,j<26;i--,j++)
{
```

```
gotoxy(1,i);
cout<<"#";
gotoxy(79,j);
cout<<"#";
tic(7000000);
}
for(i=0,j=79;i<80,j>=1;i++,j--)
{
gotoxy(i,1);
cout<<"#";
gotoxy(j,25);
cout<<"#";
tic(7000000);
}
for(i=1,j=25;i<13,j>12;i++,j--)
{
gotoxy(1,j);
cout<<"#";
gotoxy(79,i);
cout<<"#";
tic(7000000);
}

gotoxy(2,2);
cout<<"                    ";gotoxy(2,3);
cout<<"                    ";gotoxy(2,4);
cout<<"                    ";gotoxy(2,5);
cout<<"                    ";gotoxy(2,6);
cout<<"       * *******  ********** ******        ";gotoxy(2,7);
cout<<"       * **  *  *  * ******  ";gotoxy(2,8);
cout<<"       ****** *  *  * *******   ";gotoxy(2,9);
cout<<"       *****  *  *  * ** ** ";gotoxy(2,10);
cout<<"       * ****** ****** ****** * ******               ";gotoxy(2,11);
cout<<"                    ";gotoxy(2,12);
cout<<"             ******* *****                ";gotoxy(2,13);
cout<<"              * * *    ";gotoxy(2,14);
cout<<"              * * *   ";gotoxy(2,15);
cout<<"              * * *   ";gotoxy(2,16);
cout<<"              * *****  ";gotoxy(2,17);
cout<<"                   ";
```

```
tic(70000000);
gotoxy(79,25);
cout<<endl;cout<<endl;cout<<endl;cout<<endl;cout<<endl;
cout<<"           2            22  2    22222           2   "<<endl;tic(20000000);
cout<<"          222    22  222    22222 22    222   "<<endl;tic(20000000);
cout<<"          22 22   22  22 22   222        22 22   "<<endl;tic(20000000);
cout<<"          22  22  22  22  22   222222   22  22  "<<endl;tic(20000000);
cout<<"         22   22 22  222222222    222   222222222 "<<endl;tic(20000000);
cout<<"         22    222  22    22 222  2222 22    22 "<<endl;tic(20000000);
cout<<"        22          2  22     22 2222222  22         22"<<endl<<endl;tic(20000000);
cout<<"  22   22   222    22222  222222 222222 22222222   2    22    "<<endl;tic(20000000);
cout<<"  22   22  22 22   22222 22 22  22  22    22    222   22    "<<endl;tic(20000000);
cout<<"  22   22 22  22 222      22  22  22    22    22 22   22    "<<endl;tic(20000000);
cout<<"  22222222 22   22  222222  222222   22          22   22  22  22   22    "<<endl;tic(20000000);
cout<<"  22   22 22  22    222 22         22    22   222222222  22    "<<endl;tic(20000000);
cout<<"  22   22  22 22  222  2222 22     22    22  22    22 22    "<<endl;tic(20000000);
cout<<"  22   22   222   2222222  22   222222   22 22    22 22222222 "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                |******************|         "<<endl;tic(20000000);
cout<<"                |******************|   "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       "<<endl;tic(20000000);
cout<<"                    |***|       ";
}
void clear()
{
for(int i=80;i>=0;i--)
{
for(int j=1;j<26;j++)
{
gotoxy(i,j);
cout<<"|";
}
tic(3000000);
for(j=1;j<26;j++)
{
```

```
gotoxy(i+1,j);
cout<<" ";
}
}
}
void  clear3()
{
for(int i=80;i>=0;i--)
{
for(int j=5;j<23;j++)
{
gotoxy(i,j);
cout<<"|";
}
tic(3000000);
for(j=5;j<23;j++)
{
gotoxy(i+1,j);
cout<<" ";
}
}
}
void tic(long n)
{
for(long i=0;i<n;i++)
{}
}
void ag(int n)
{
char k[20];
if(n==0)
strcpy(k,"Access Granted");
else
strcpy(k,"Access Denied");
int j,i;
char a;
for(i=0;i<14;i++)
{
for(j=0;j<10;j++)
{
```

```
gotoxy(34+i,12);
a=92+random(25);
cout<<a;
tic(5000000);
}
gotoxy(34+i,12);
cout<<k[i];
}
tic(200000000);
}
void delay()
{
for(long p=0;p<26500;p++)
{
int c=0;
c++;
}
}
void clear2()
{
for(int i=80,k=1;i>40;i--,k++)
{
for(int m=1;m<26;m++)
{
gotoxy(k,m);                                    //565468465468468465465
cout<<"|";
gotoxy(i,m);
cout<<"|";
gotoxy(k-1,m);
cout<<" ";
gotoxy(i+1,m);
cout<<" ";
}
tic(3000000);
}
for(int m=26,n=26;m>0;m--,n++)
{
gotoxy(k,m/2);
cout<<" ";
gotoxy(i,m/2);
```

```
cout<<" ";
gotoxy(k,n/2);
cout<<" ";
gotoxy(i,n/2);
cout<<" ";
tic(3000000);
}
}
void gli()
{
gotoxy(0,0);
for(int i=1;i<2000;i++)
{
tic(110000);
cout<<random(10);
}
gotoxy(0,0);
for(i=1;i<2000;i++)
{
tic(110000);
cout<<" ";
}
}
void gli1()
{
gotoxy(0,0);
for(int i=1;i<2000;i++)
{
tic(110000);
cout<<random(10);
}
}
void login()
{
logo();
getch();
clear();
pass();
}
void pass()
```

```
{
char user[20],pass[20];
int l=3;
design2();
got:gotoxy(23,11);
cout<<"USERNAME:";
gotoxy(32,10);
cout<<"|-----------------|";
gotoxy(32,11);
cout<<"|                 |";
gotoxy(32,12);
cout<<"|-----------------|";
gotoxy(33,11);
gets(user);
gotoxy(23,15);
cout<<"PASSWORD:";
gotoxy(32,14);
cout<<"|-----------------|";
gotoxy(32,15);
cout<<"|                 |";
gotoxy(32,16);
cout<<"|-----------------|";
gotoxy(33,15);
char u;
int i=0;
while(i>=0)
{
u=getch();
if(u==13)
break;
else if(u==8)
{
i--;
cout<<'\b';
pass[i]='\0';
i--;
}
else
{
pass[i]=u;
```

```
cout<<"*";
}
i++;
}
pass[i]='\0';
if(strcmp(user,"abin")==0&&strcmp(pass,"pass")==0)
{
clear2();
gotoxy(34,12);
design1();
ag(0);
clear();
load();
display();
}
else
{
if(l>0)
{
gotoxy(27,17);
cout<<"Wrong userrname/password";
tic(500000000);
gotoxy(33,15);
cout<<"            ";
gotoxy(27,17);
cout<<"    ATTEMTS LEFT("<<l<<")      ";
l--;
goto got;
}
clear2();
ag(1);
}
}
void design1()
{
int z=3;
for(int i=80,k=1,j=26;i>40;i--,k++,j--)
{
for(int x=k;x<j;x++)
{
```

```
gotoxy(i,x);cout<<"*";
gotoxy(k,x);cout<<"*";
tic(600000);
}
for(int y=k+z;y<i-z;y++)
{
gotoxy(y,k);cout<<"*";
gotoxy(y,j);cout<<"*";
tic(6000);
}
z+=3;
}
}
void loadcircle()
{
gotoxy(36,12);
cout<<"Loading";
for(int m=0;m<4;m++)
{
int x[10]={0,1,2,3,7,9,11,12,13,13};
int y[10]={7,7,7,7,6,5,4,3,1,0};
for(int i=0;i<10;i++)
{
gotoxy(39+x[i],12+y[i]);
cout<<"*";
gotoxy(39-x[i],12-y[i]);
cout<<"*";
tic(16000000);
}
for(i=10;i>=0;i--)
{
gotoxy(39+x[i],12-y[i]);
cout<<"*";
gotoxy(39-x[i],12+y[i]);
cout<<"*";
tic(16000000);
}
for(i=0;i<10;i++)
{
gotoxy(39+x[i],12+y[i]);
```

```
cout<<" ";
gotoxy(39-x[i],12-y[i]);
cout<<" ";
tic(16000000);
}
for(i=10;i>=0;i--)
{
gotoxy(39+x[i],12-y[i]);
cout<<" ";
gotoxy(39-x[i],12+y[i]);
cout<<" ";
tic(16000000);
}
}
}
void clear5()
{
for(int i=28;i<50;i++)
{
for(int j=8;j<19;j++)
{
gotoxy(i,j);
cout<<"|";
gotoxy(i-1,j);
cout<<" ";
}
tic(3990000);
}
for(int j=8;j<19;j++)
{
gotoxy(i-1,j);
cout<<" ";
}
}
void clear4()
{
for(int i=79-28;i>30;i--)
{
for(int j=8;j<19;j++)
{
```

```
gotoxy(i,j);
cout<<"|";
gotoxy(i+1,j);
cout<<" ";
}
tic(3990000);
}
for(int j=8;j<19;j++)
{
gotoxy(i+1,j);
cout<<" ";
}
}
void design2()
{
for(int i=80,k=1;i>40;i--,k++)
{
for(int m=1;m<26;m++)
{
if((i>60||(m<7||m>20))||k<20||(m<7||m>20))
{
gotoxy(k,m);
cout<<"#";
gotoxy(i,m);
cout<<"#";
}
}
tic(3990000);
}
for(i=21;i<61;i++)
{

gotoxy(i,7);cout<<"*";
gotoxy(81-i,20);cout<<"*";
tic(3990000);
}
for(i=7;i<20;i++)
{
gotoxy(60,i);cout<<"*";
gotoxy(21,26-i);cout<<"*";
```

```
tic(3990000);
}
}
void load()
{
clrscr();
gotoxy(22,11);
cout<<"           Loading";
gotoxy(30,12);
cout<<" -------------------------- ";
gotoxy(30,13);
cout<<"|                  |";
gotoxy(30,14);
cout<<" -------------------------- ";
int k=31;
for(int i=0;i<101;i++)
{
for(int j=0;j<10;j++)
{
if(i<100)
{
gotoxy(42,15);
cout<<i<<"."<<j<<" %";
tic(1000000);
}
else
{
gotoxy(42,15);
cout<<i<<".0 %";
}
}
if(i%4==0)
{
gotoxy(k,13);
cout<<"
";
k++;
}
}
clrscr();
```

```
}
void display()
{main:
clrscr();
homescr();
for(int q=1;q<24;q++)
{
gotoxy(1,q);cout<<'#';
gotoxy(90,q);cout<<'#';
}
gotoxy(32,5);
cout<<" _________________";gotoxy(32,6);
cout<<"|   MAIN MENU   |";gotoxy(32,7);
cout<<"|=================|";gotoxy(32,8);
cout<<"|  NEW PATIENT  |";gotoxy(32,9);
cout<<"|           |";gotoxy(32,10);
cout<<"|   DOCTOR    |";gotoxy(32,11);
cout<<"|   REPORT    |";gotoxy(32,12);
cout<<"|           |";gotoxy(32,13);
cout<<"|  FACILITIES   |";gotoxy(32,14);
cout<<"|           |";gotoxy(32,15);
cout<<"|   SEARCH    |";gotoxy(32,16);
cout<<"|           |";gotoxy(32,17);
cout<<"|   BILLING   |";gotoxy(32,18);
cout<<"|           |";gotoxy(32,19);
cout<<"|   REPORT    |";gotoxy(32,20);
cout<<"|           |";gotoxy(32,21);
cout<<"|    EXIT    |";gotoxy(32,22);
cout<<"|_________________|";gotoxy(32,23);
cout<<"            ";
gotoxy(4,13);gotoxy(1,23);
cout<<"##########################################################################
####################";
cout<<"\n            PRESS 'A' TO GO RIGHT AND 'D' FOR DOWN            ";
char a;
int i=6;
do
{
gotoxy(1,23);
cout<<"##########################################################################
####################";
```

```
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
a=getch();
if(a=='d'&&i<12)
{
clear5();
i++;
}
else if(a=='a'&&i>6)
{
clear4();
i--;
}
if(i==6)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
gotoxy(35,8);
cout<<" _________ ";gotoxy(35,9);
cout<<"|  New  |";gotoxy(35,10);
cout<<"| Patient |";gotoxy(35,11);
cout<<"|---------|";gotoxy(35,12);
cout<<"|*.....  |";gotoxy(35,13);
cout<<"|*....   |";gotoxy(35,14);
cout<<"|*....   |";gotoxy(35,15);
cout<<"|      +";gotoxy(35,16);
cout<<"|_______+ + +";gotoxy(35,17);
cout<<"       +  ";gotoxy(35,18);
cout<<"          ";gotoxy(35,19);
}
else if(i==7)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
```

```
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"| DOCTOR |  ";gotoxy(35,10);
cout<<"| REPORT|  ";gotoxy(35,11);
cout<<"|---------|  ";gotoxy(35,12);
cout<<"|*.....  |  ";gotoxy(35,13);
cout<<"|*.....  |  ";gotoxy(35,14);
cout<<"|*.....  |  ";gotoxy(35,15);
cout<<"|*....  |  ";gotoxy(35,16);
cout<<"|_________|  ";gotoxy(35,17);
cout<<"         ";gotoxy(35,18);
cout<<"         ";gotoxy(35,19);
}
else if(i==8)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"#########################################################################
#####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"|  FAC. |  ";gotoxy(35,10);
cout<<"|*.......|  ";gotoxy(35,11);
cout<<"|*.....  |  ";gotoxy(35,12);
cout<<"|*.....  |  ";gotoxy(35,13);
cout<<"|*.....  |  ";gotoxy(35,14);
cout<<"|*.....  |  ";gotoxy(35,15);
cout<<"|*....  |  ";gotoxy(35,16);
cout<<"|_________|  ";gotoxy(35,17);
cout<<"         ";gotoxy(35,18);
cout<<"         ";gotoxy(35,19);
}
else if(i==9)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"#########################################################################
#####################";
```

```
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP              ";
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"| SEARCH. | ";gotoxy(35,10);
cout<<"|---------| ";gotoxy(35,11);
cout<<"|      | ";gotoxy(35,12);
cout<<"|      | ";gotoxy(35,13);
cout<<"|      | ";gotoxy(35,14);
cout<<"|


| ";gotoxy(35,15);
cout<<"|

";gotoxy(35,16);
cout<<"|_____

\\*  ";gotoxy(35,17);
cout<<"      \\* ";gotoxy(35,18);
cout<<"       \\*";gotoxy(35,19);
}
else if(i==10)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"#################################################################
####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP              ";
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"| BILLING | ";gotoxy(35,10);
cout<<"|---------| ";gotoxy(35,11);
cout<<"|[][] [][]| ";gotoxy(35,12);
cout<<"| _____ | ";gotoxy(35,13);
cout<<"| |__|__|| ";gotoxy(35,14);
cout<<"| |__|__|| ";gotoxy(35,15);
cout<<"| |__|__|| ";gotoxy(35,16);
cout<<"|_________| ";gotoxy(35,17);
cout<<"        ";gotoxy(35,18);
cout<<"        ";
```

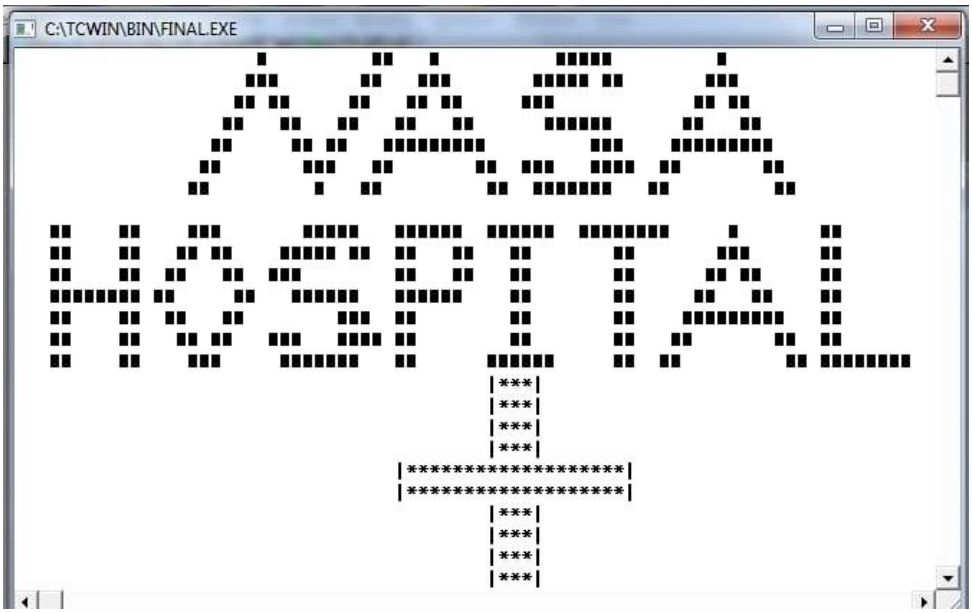
```
}
else if(i==11)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"##########################################################################
####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"| REPORTS | ";gotoxy(35,10);
cout<<"|---------| ";gotoxy(35,11);
cout<<"|_|__|__|_| ";gotoxy(35,12);
cout<<"|.|..|..|.| ";gotoxy(35,13);
cout<<"|.|..|..|.| ";gotoxy(35,14);
cout<<"|.|..| || ";gotoxy(35,15);
cout<<"|_|__|__|_| ";gotoxy(35,16);
cout<<"|_________| ";gotoxy(35,17);
cout<<"         ";gotoxy(35,18);
cout<<"         ";
}
else if(i==12)
{
clrscr();
homescr2();
gotoxy(1,23);
cout<<"##########################################################################
####################";
cout<<"\n              PRESS 'A' TO GO DOWN AND 'D' FOR UP             ";
gotoxy(35,8);
cout<<" _________  ";gotoxy(35,9);
cout<<"| EXIT. | ";gotoxy(35,10);
cout<<"|---------| ";gotoxy(35,11);
cout<<"|      | ";gotoxy(35,12);
cout<<"|      | ";gotoxy(35,13);
cout<<"|  \\    | ";gotoxy(35,14);
cout<<"|====}  @  ";gotoxy(35,15);
cout<<"|  /  /\\\\ ";gotoxy(35,16);
cout<<"|_____/\\   ";gotoxy(35,17);
cout<<"         ";gotoxy(35,18);
```

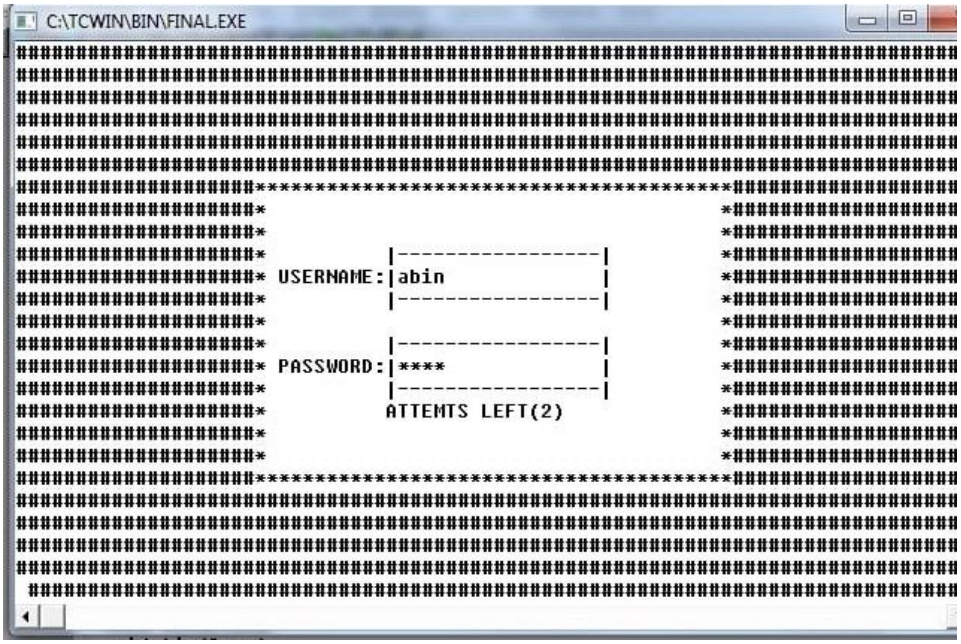
```
cout<<"        ";
}
else if(a!=13)
{
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n                ===>INVALID KEY<===                    ";
tic(55000000);
}
if(a==13)
{
if(i==6)
{
newpatient();
goto main;
}
else if(i==7)
{


doctoreport();
clear3();
goto main;
}
else if(i==8)
{
clear3();
homescr();
cout<<"                    Facilities";
cout<<"\n 1.Blood Bank\n 2.Hospice Homes\n 3.Ambulance\n 4.Surgical Treatment\n
5.Oncology Treatment ";
gotoxy(1,23);
cout<<"##################################################################
####################";
cout<<"\n              Press 'H' to go to Home Screen                ";
while(1)
if(getch()=='h')
goto main;
}
else if(i==9)
```

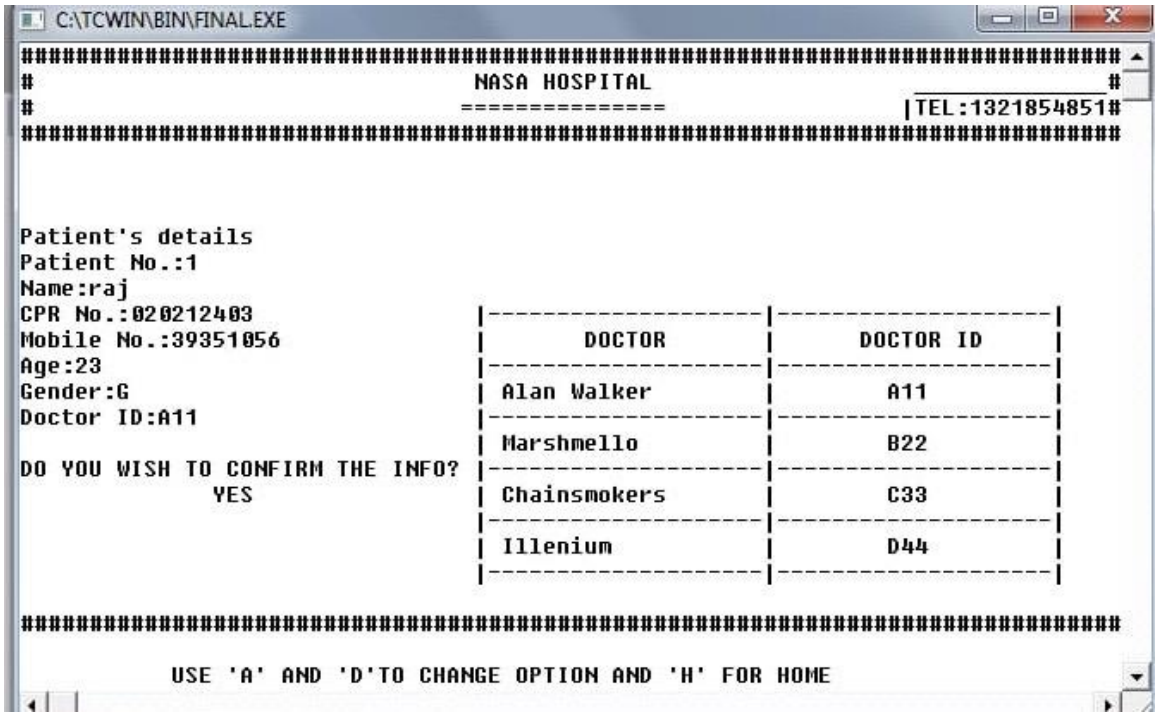
```
{
clear3();
search();
goto main;
}
else if(i==10)
{
billing();
goto main;
}
else if(i==11)
{
fullrecord();
goto main;
}
else if(i==12)
{
refresh();
clear2();
i=20;
}
}
} while(i!=20);
}
void main()
{
login();
gotoxy(69,20);cout<<"PROJECT BY:";
gotoxy(69,21);cout<<"ABIN";
gotoxy(69,22);cout<<"ALAN";
gotoxy(69,23);cout<<"SAARANG";
gotoxy(69,24);cout<<"NITHIN";
}
```

SAMPLE OUTPUTS

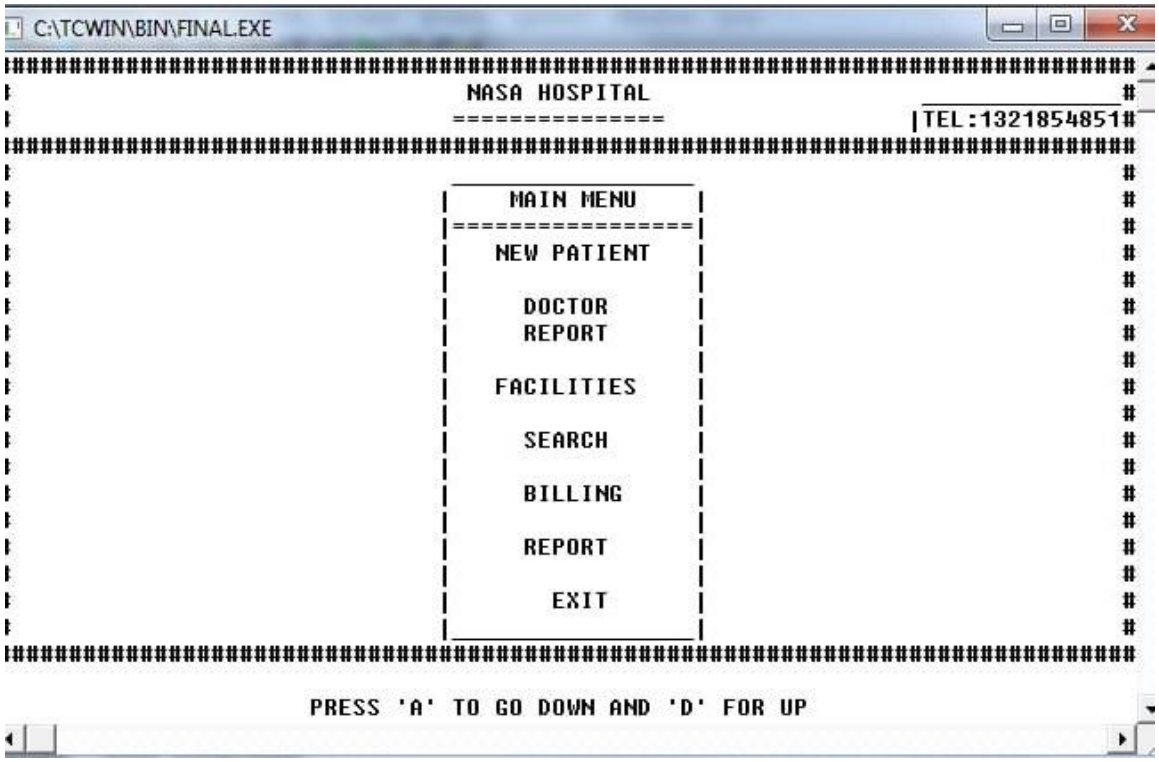




- Patient Report:



- Main Menu:



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****