HOSPITAL MANAGEMENT SYSTEM

GROUP B-4

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CODE

```
#include<iostream>
#include<conio.h>
#include<process.h>
using namespace std;
class all
{
 private:
  struct address
  {
   int house;
   char street[30];
   char city[30];
   char state[30];
   char country[30];
  };
  struct age
  {
   int day;
   int month;
   int year;
  };
  struct patient_info
  {
   char name[50];
```

```
  address AD1;
  age A1;
  int martial_status;
  int reg_no;
  int bld_group;
  int sex;
 }PI[100];
 int task;
protected:
 void enter_patient_info();
 void show_patient_detail();
public:
 void software_detail();
 void tasks();
 char answer;
 char answer1;
 char ch;
 int serial;
};

class date
{
 private:
        int date;
  int month;
  int year;
 public:
  void enter_date();
  void show_date();
};
```

```
class dob
{
 private:
  struct dob1
  {
   int date;
   int month;
   int year;
   int rem;
  }DOB11[100];
 public:
   void enter_date();
   void show_date();
};

int i=0;
int rem;
int count;
int regis;
int attempt;
int temp;
int show_count=0;

all A1;
date D1;
dob DOB1;

int main()
{
 count=0;
 cout<<"                              ***HOSPITAL MANAGEMENT SOFTWARE***"<<endl;
```

```
 cout<<"                                    By Group B-4      "<<endl;
 D1.enter_date();
 A1.tasks();
}

void all::tasks()
{
 attempt=0;
 D1.show_date();
 cout<<"***HOSPITAL MANAGEMENT SOFTWARE***"<<endl;
 cout<<"                                  By Group B-4       "<<endl;
 cout<<" **Hospital Management Tasks**"<<endl;
 cout<<"                                   ****************************"<<endl;
 cout<<"Please  select a task to do...."<<endl;
 cout<<"1. Enter a new patient information ."<<endl;
 cout<<"2. View detail of existing patient ."<<endl;
 cout<<"3. View detail about the program ."<<endl;
 cout<<"4. Exit from the program ."<<endl;

 cout<<"Enter your task serail :"<<endl;
 cin>>task;
 switch(task)
 {
  case 1:{
         A1.enter_patient_info();
         break;
        }
  case 2:{
         A1.show_patient_detail();
         break;
        }
```

```
 case 3:{
        A1.software_detail();
        break;
       }
 case 4:{
        //clrscr();
        cout<<"    Thank You for trying this program !!!"<<endl;
        cout<<"    This is the end of program...."<<endl;
        cout<<"Press any key to exit....."<<endl;
        getch();
        exit(0);
        break;
       }
default:{
        //clrscr();
        cout<<"Invalid task serial ."<<endl;
        cout<<"Press any key to continue...."<<endl;
        getch();
       // clrscr();
        A1.tasks();
       }
 }
}

void all::enter_patient_info()
{
 //clrscr();
 answer='y';
 if(count==0)
 {
  serial=1;
```

```
}
else
{
 i=serial;
}
for(i=serial;answer=='y'||answer=='Y';i++)
{
 PI[i].reg_no=i;
 temp=serial;
 cout<<"            ***ENTERING INFORMATION FOR PATIENT SERIAL NUMBER "<<i<<"***"<<endl;
 cin.get(ch);
 cout<<"Registration Number : "<<PI[i].reg_no<<endl;
 cout<<"Enter the name of patient :"<<endl;
 //clreol();
 cin.getline(PI[i].name,50);
 cout<<"Sex (1-Male 2-Female) :"<<endl;
 //clreol();
 cin>>PI[i].sex;
 while(PI[i].sex!=1&&PI[i].sex!=2)
 {
  cout<<"Invalid input for sex of patient!!!"<<endl;
  cout<<"Sex :"<<endl;
  //clreol();
  cin>>PI[i].sex;
 }
 cout<<"***ENTERING ADDRESS**"<<endl;
 cout<<"House number :"<<endl;
 //clreol();
 cin>>PI[i].AD1.house;
 while(PI[i].AD1.house<=0)
 {
```

```
 cout<<"Invalid input for house number ."<<endl;
 cout<<"Again enter the house number ."<<endl;
 //clreol();
 cin>>PI[i].AD1.house;
}
cin.get(ch);
cout<<"Street :"<<endl;
//clreol();
cin.getline(PI[i].AD1.street,30);
cout<<"City :"<<endl;
//clreol();
cin.getline(PI[i].AD1.city,30);
cout<<"State :"<<endl;
//clreol();
cin.getline(PI[i].AD1.state,30);
cout<<"Country :"<<endl;
//clreol();
cin.getline(PI[i].AD1.country,30);
DOB1.enter_date();

cin.get(ch);
cout<<"Martial status(1-Married,2-Not Married ):"<<endl;
if(count!=0)
{
 //clreol();
}
cin>>PI[i].martial_status;
while(PI[i].martial_status<1||PI[i].martial_status>2)
{
 cout<<"Invalid input for martial status ."<<endl;
 cout<<"Enter a valid martial status :"<<endl;
```

```
 //clreol();
 cin>>PI[i].martial_status;
}
cin.get(ch);
if(count!=0)
{
// clreol();
}
//clreol();
cout<<"Blood group :"<<endl;
//clreol();
cout<<"1. A+ "<<endl;
//clreol();
cout<<"2. A- "<<endl;
//clreol();
cout<<"3. B+ "<<endl;
//clreol();
cout<<"4. B- "<<endl;
//clreol();
cout<<"5. AB+ "<<endl;
// clreol();
cout<<"6. AB- "<<endl;
//clreol();
cout<<"7. O+ "<<endl;
//clreol();
cout<<"8. O- "<<endl;
// clreol();
cout<<"Enter :"<<endl;
// clreol();
cin>>PI[i].bld_group;
switch(PI[i].bld_group)
```

```
 {
  case 1:
  case 2:
  case 3:
  case 4:
  case 5:
  case 6:
  case 7:
  case 8:{
         break;
        }
 default:{

while(PI[i].bld_group!=1&&PI[i].bld_group!=2&&PI[i].bld_group!=3&&

PI[i].bld_group!=4&&PI[i].bld_group!=5&&PI[i].bld_group!=6&&
              PI[i].bld_group!=7&&PI[i].bld_group!=8)
         {
         // clreol();
          cout<<"Invalid input !"<<endl;
          cout<<"Blood Group :"<<endl;
         // clreol();
          cin>>PI[i].bld_group;
         }
         break;
        }
 }
 cin.get(ch);
 cout<<"Want to enter information for another patient ? "<<endl;
 //clreol();
 cin>>answer;
```

```
 count++;
 serial++;
 }
 //clrscr();
 A1.tasks();
}

void dob::enter_date()
{
 //clreol();
 cout<<"Date of birth"<<endl;
 //clreol();
 cout<<"Year :";
 //clreol();
 //clreol();
 cin>>DOB11[temp].year;
 if(DOB11[temp].year<=0||DOB11[temp].year>10000)
 {
  do
  {
   //clreol();
   cout<<"Invalid input for year !"<<endl;
   cout<<"Please enter the year correctly :"<<endl;
   cin>>DOB11[temp].year;
  }while(DOB11[temp].year<0||DOB11[temp].year>10000);
 }
 //clreol();
 cout<<"Month :";
 //clreol();
 cin>>DOB11[temp].month;
 if(DOB11[temp].month<=0||DOB11[temp].month>12)
```

```
{
 do
 {
 // clreol();
  cout<<"Invalid input for month !"<<endl;
  cout<<"Again enter the month :"<<endl;
 // clreol();
  if(count!=0)
  {
 //  clreol();
  }
  cin>>DOB11[temp].month;
 }while(DOB11[temp].month<0||DOB11[temp].month>12);
}
cout<<"Date :";
//clreol();
switch(DOB11[temp].month)
{
 case 1:
 case 3:
 case 5:
 case 7:
 case 8:
 case 10:
 case 12:{
        cin>>DOB11[temp].date;
        while(DOB11[temp].date<1||DOB11[temp].date>31)
        {
        // clreol();
         cout<<"Invalid date !"<<endl;
         cout<<"Again enter the date :"<<endl;
```

```
        // clreol();
         cin>>DOB11[temp].date;
        }
         break;
       }
case 2:{
       cin>>DOB11[temp].date;
       if(DOB11[temp].year%4==0)
       {
        while(DOB11[temp].date<0||DOB11[temp].date>29)

        {
       //  clreol();
         cout<<"Invalid date !"<<endl;
         cout<<"Again enter the date :"<<endl;
        // clreol();
         cin>>DOB11[temp].date;
        }
       }
       else
       {
        while(DOB11[temp].date<0||DOB11[temp].date>28)

        {
       //  clreol();
         cout<<"Invalid date !"<<endl;
         cout<<"Again enter the date :"<<endl;
      //   clreol();
         cin>>DOB11[temp].date;
        }
       }
```

```
        break;
       }
 default:{
        cin>>DOB11[temp].date;
        while(DOB11[temp].date<1||DOB11[temp].date>30)
        {
        // clreol();
         cout<<"Invalid date !"<<endl;
         cout<<"Again enter the date :"<<endl;
        // clreol();
         cin>>DOB11[temp].date;
        }
        break;
       }
 }
 //clreol();
}

void date::enter_date()
{
 cout<<"First of all I need the current date ..."<<endl;
 cout<<"Year :";
 cin>>year;
 if(year<=0||year>10000)
 {
  do
  {
   cout<<"Invalid input for year !"<<endl;
   cout<<"Please enter the year correctly :"<<endl;
   cin>>year;
  }while(year<0||year>10000);
```

```
}
cout<<"Month :";
cin>>month;
if(month<=0||month>12)
{
 do
 {
  cout<<"Invalid input for month !"<<endl;
  cout<<"Again enter the month :"<<endl;
  cin>>month;
 }while(month<0||month>12);
}
cout<<"Date :";
switch(month)
{
 case 1:
 case 3:
 case 5:
 case 7:
 case 8:
 case 10:
 case 12:{
         cin>>date;
         while(date<1||date>31)
         {
          cout<<"Invalid date !"<<endl;
          cout<<"Again enter the date :"<<endl;
          cin>>date;
         }
         break;
        }
```

```
 case 2:{
        cin>>date;
        if(year%4==0)
        {
         while(date<0||date>29)
         {
          cout<<"Invalid date !"<<endl;
          cout<<"Again enter the date :"<<endl;
          cin>>date;
         }
        }
        else
        {
         while(date<0||date>28)
         {
          cout<<"Invalid date !"<<endl;
          cout<<"Again enter the date :"<<endl;
          cin>>date;
         }
        }
        break;
       }
default:{
        cin>>date;
        while(date<1||date>30)
        {
         cout<<"Invalid date !"<<endl;
         cout<<"Again enter the date :"<<endl;
         cin>>date;
        }
        break;
```

```
        }
 }
}

void date::show_date()
{
 //clrscr();
 cout<<"Hello....It's ";
 cout<<date;
 rem=date%10;
 switch(date)
 {
  case 11:
  case 12:
  case 13:
  case 14:
  case 15:
  case 16:
  case 17:
  case 18:
  case 19:
  case 20:{
          cout<<"th ";
          goto over;
         }
 }
 switch(rem)
 {
  case 1:{
         cout<<"st ";
         break;
```

```
      }
 case 2:{
       cout<<"nd ";
       break;
      }
 case 3:{
       cout<<"rd ";
       break;
      }
default:{
       cout<<"th ";
       break;
      }
}
over:
switch(month)
{
 case 1:{
       cout<<"January , ";
       break;
      }
 case 2:{
       cout<<"February , ";
       break;
      }
 case 3:{
       cout<<"March , ";
       break;
      }
 case 4:{
       cout<<"April , ";
```

```
        break;
       }
 case 5:{
        cout<<"May , ";
        break;
       }
 case 6:{
        cout<<"June , ";
        break;
       }
 case 7:{
        cout<<"July , ";
        break;
       }
 case 8:{
        cout<<"August , ";
        break;
       }
 case 9:{
        cout<<"September , ";
        break;
       }
case 10:{
        cout<<"October , ";
        break;
       }

case 11:{
        cout<<"November , ";
        break;
       }
```

```
 case 12:{
         cout<<"December , ";
         break;
        }
 }
 cout<<year<<" ";
}

void all::show_patient_detail()
{
 do
 {
  //clrscr();
  cout<<"Enter registration number :"<<endl;
  //clreol();
  cin>>regis;
  cin.get(ch);
  show_count++;
  if(regis>0 && regis<serial)
  {
   //clreol();
   cout<<"            ***INFORMATION FOR PATIENT REGISTRATION NUMBER"<<regis<<"***";
   //clreol();
   cout<<"Name          : "<<PI[regis].name<<endl;
   //clreol();
   cout<<"Sex           : ";
   //clreol();
   if(PI[regis].sex==1)
   {
    cout<<"Male "<<endl;
    //clreol();
```

```
}
if(PI[regis].sex==2)
{
 cout<<"Female "<<endl;
 //clreol();
}
cout<<"Blood Group    : ";
//clreol();
switch(PI[regis].bld_group)
{
 case 1:{
       // clreol();
        cout<<"A+";
        break;
       }
 case 2:{
       // clreol();
        cout<<"A-";
        break;
       }
 case 3:{
       // clreol();
        cout<<"B+";
        break;
       }
 case 4:{
     //   clreol();
        cout<<"B-";
        break;
       }
 case 5:{
```

```
      //  clreol();
        cout<<"AB+";
        break;
       }
 case 6:{
      //  clreol();
        cout<<"AB-";
        break;
       }
 case 7:{
      //  clreol();
        cout<<"O+";
        break;
       }
 case 8:{
       // clreol();
        cout<<"O-";
        break;
       }
}
//clreol();
cout<<"Date of birth  : ";
//clreol();
DOB1.show_date();
cout<<"Martial Status : ";
//clreol();
if(PI[i].martial_status==1)
{
 cout<<"Married "<<endl;
// clreol();
}
```

```
 else
 {
  cout<<"Not married "<<endl;
  //clreol();
 }
// clreol();
 cout<<"        **ADDRESS**"<<endl;
// clreol();
 cout<<"House no.      : "<<PI[regis].AD1.house;
// clreol();
 cout<<"Street         : "<<PI[regis].AD1.street;
// clreol();
 cout<<"City           : "<<PI[regis].AD1.city;
// clreol();
 cout<<"State          : "<<PI[regis].AD1.state;
// clreol();
 cout<<"Country        : "<<PI[regis].AD1.country;
// clreol();
}
else
{
 if(regis==1)
 {
  cout<<"Database is empty !!!"<<endl;
  cout<<"Press any key to exit to main task menu...";
  getch();
  //clrscr();
  A1.tasks();
 }
 attempt++;
 if(attempt==3)
```

```
  {
   cout<<"You have entered wrong registration number 3 times ."<<endl;
   cout<<"Access Denied!!! "<<endl;
   cout<<"Please try again later. "<<endl;
   cout<<"Press any key to exit to main task menu..."<<endl;
   getch();
   //clrscr();
   A1.tasks();
  }
  //clreol();
  cout<<"Sorry, the registration number is invalid ."<<endl;
  cout<<"Press any key to continue...."<<endl;
  getch();
 // clreol();
  A1.show_patient_detail();
 }
 //clreol();
 cout<<"Want to see information of another patient :"<<endl;
 //clreol();
 cin>>answer1;
}while(answer1=='y'||answer1=='Y');
// clreol();
// clrscr();
 A1.tasks();
}

void dob::show_date()
{
 cout<<DOB11[regis].date;
 rem=DOB11[regis].date%10;
 switch(DOB11[regis].date)
```

```
{
 case 11:
 case 12:
 case 13:
 case 14:
 case 15:
 case 16:
 case 17:
 case 18:
 case 19:
 case 20:{
         cout<<"th ";
         goto over;
        }
}
switch(rem)
{
 case 1:{
        cout<<"st ";
        break;
       }
 case 2:{
        cout<<"nd ";
        break;
       }
 case 3:{
        cout<<"rd ";
        break;
       }
default:{
        cout<<"th ";
```

```
        break;
       }
}
over:
switch(DOB11[regis].month)
{
 case 1:{
        cout<<"January , ";
        break;
       }
 case 2:{
        cout<<"February , ";
        break;
       }
 case 3:{
        cout<<"March , ";
        break;
       }
 case 4:{
        cout<<"April , ";
        break;
       }
 case 5:{
        cout<<"May , ";
        break;
       }
 case 6:{
        cout<<"June , ";
        break;
       }
 case 7:{
```

```
        cout<<"July , ";
        break;
       }
 case 8:{
        cout<<"August , ";
        break;
       }
 case 9:{
        cout<<"September , ";
        break;
       }
case 10:{
        cout<<"October , ";
        break;
       }

case 11:{
        cout<<"November , ";
        break;
       }
case 12:{
        cout<<"December , ";
        break;
       }
}
cout<<DOB11[regis].year<<" ";
}

void all::software_detail()
{
 //clrscr();
```

```
cout<<"                          ***SOFTWARE DETAILS***";
cout<<"          Developer            : Naveen Menon "<<endl;
cout<<"          Developer            : Rushikesh More "<<endl;
cout<<"          Developer            : Ganesh Pavane "<<endl;
cout<<"          Programming Language    : C++ "<<endl;
cout<<"          Aim                : Simulation of the software used in Hospital"<<endl;
cout<<"Hope you like it..."<<endl;
cout<<"          Thank You for trying this program. "<<endl;
cout<<"    Press any key to return to the main task menu......."<<endl;
getch();
A1.tasks();
}
```

OUTPUT

```
                         ***HOSPITAL MANAGEMENT SOFTWARE***
                                  By Group B-4
First of all I need the current date ...
Year :2018
Month :1
Date :16
Hello....It's 16th January , 2018 ***HOSPITAL MANAGEMENT SOFTWARE***
                               By Group B-4
 **Hospital Management Tasks**
                                ******************************
Please  select a task to do....
1. Enter a new patient information .
2. View detail of existing patient .
3. View detail about the program .
4. Exit from the program .
Enter your task serail :
```

```
         ***ENTERING INFORMATION FOR PATIENT SERIAL NUMBER 1***
Registration Number : 1
Enter the name of patient :
Ashutosh
Sex (1-Male 2-Female) :
1
***ENTERING ADDRESS**
House number :
12
Street :
wagholi road
City :
pune
State :
maharastra
Country :
india
Date of birth
Year :1998
Month :3
Date :26
Martial status(1-Married,2-Not Married ):
2
Blood group :
1. A+
2. A-
3. B+
4. B-
5. AB+
6. AB-
7. O+
8. O-
Enter :
2
Want to enter information for another patient ?
n
Hello....It's 16th January , 2018 ***HOSPITAL MANAGEMENT SOFTWARE***
                          By Group B-4
 **Hospital Management Tasks**
                            ******************************
Please  select a task to do....
1. Enter a new patient information .
2. View detail of existing patient .
3. View detail about the program .
4. Exit from the program .
Enter your task serail :

Enter registration number :
1
          ***INFORMATION FOR PATIENT REGISTRATION NUMBER1***Name           : Ash
utosh
Sex             : Male
Blood Group     : A-Date of birth  : 26th March , 1998 Martial Status : Not marri
ed
         **ADDRESS**
House no.       : 12Street          : wagholi roadCity           : puneState
    : maharastraCountry        : indiaWant to see information of another patient
 :



                          ***SOFTWARE DETAILS*** Developer                : Navee
n Menon
        Developer                 : Rushikesh More
        Developer                 : Ganesh Pavane
        Programming Language      : C++
        Aim                       : Simulation of the software used in Hospital
Hope you like it...
        Thank You for trying this program.
    Press any key to return to the main task menu.......
```