Step 4 Screen Shots Project 2 Jairun Diemert

Visual Studio — Project2Diemert — Doctor.cpp

```cpp
//File: Doctor.cpp
//Author: Jairun Diemert
//Class: COP3014
//Project: 2
//Description: This is the member function file for Doctor.

#include <iostream>
#include <string>
using namespace std;

#include "Doctor.h"
#include "Appointment.h"

Doctor::Doctor(string name, int age, string specialty)
{
    nameD = name;
    ageD = age;
    specialtyD = specialty;
};
string Doctor::GetNameD()
{
    return nameD;
};
int Doctor::GetAgeD()
{
    return ageD;
};
string Doctor::GetSpecialtyD()
{
    return specialtyD;
};
Appointment * Doctor::GetOpenApp()
{
    return appointment;
};
```

Output:

```
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sspicli.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\cryptbase.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'. Cannot find or open the PDB file.
The thread 0x298c has exited with code 0 (0x0).
The thread 0x11bc has exited with code 0 (0x0).
The program '[5552] Project2Diemert.exe' has exited with code 0 (0x0).
```

Visual Studio — Project2Diemert — Patient.h

```cpp
//File: Patient.h
//Author: Jairun Diemert
//Class: COP3014
//Project: 2
//Description: This is the header file for the Patient class.

#ifndef PATIENT_H
#define PATIENT_H

#include <iostream>
#include <string>
using namespace std;

class Patient {
public:
    Patient(string name = "Empty", int age = 0, string sex = "Empty");
    string GetNameP();
    int GetAgeP();
    string GetSexP();

    string nameP;
    int ageP;
    string sexP;
};
#endif
```

Output:

```
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sspicli.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\cryptbase.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'. Cannot find or open the PDB file.
The thread 0x298c has exited with code 0 (0x0).
The thread 0x11bc has exited with code 0 (0x0).
The program '[5552] Project2Diemert.exe' has exited with code 0 (0x0).
```

```cpp
//File: Patient.cpp
//Author: Jairun Diemert
//Class: COP3014
//Project: 2
//Description: This is the member function file for Patient.

#include <iostream>
#include <string>
using namespace std;

#include "Patient.h"

Patient::Patient(string name, int age, string sex)
{
    nameP = name;
    ageP = age;
    sexP = sex;
};
string Patient::GetNameP()
{
    return nameP;
};
int Patient::GetAgeP()
{
    return ageP;
};
string Patient::GetSexP()
{
    return sexP;
};
```

```cpp
//Class: COP3014
//Project: 2
//Description: This is the header file for the Appointment class.

#ifndef APPOINTMENT_H
#define APPOINTMENT_H

#include <iostream>
#include <string>
using namespace std;

class Appointment {
public:
    Appointment();
    Appointment(int timeScheduled, string patientName);
    int GetTimeScheduled();
    void SetPatientName(string patientName);
    void SetTimeScheduled(int timeScheduled);
    void AppointmentSchedular(string patientName, int timeScheduled, string doctorName);
    int DoctorLocator(string searchNameD);
    bool ScheduleOpen(int timeScheduled, int arrayLocationD);
    void ScheduleAppointment(int arrayLocationD, int timeScheduled, string patientName);
    void PrintPatients();
    void PrintDoctors();
    bool MenuPrompt();

    string patientNameP = "Empty";
    int timeScheduledP = 0;
};
#endif
```

```cpp
//File: Appointment.cpp
//Author: Jairun Diemert
//Class: COP3014
//Project: 2
//Description: This is the member function file for Appointment.

#include <iostream>
#include<string>
using namespace std;

#include "PatientList.h"
#include "DoctorList.h"
#include "Appointment.h"

Appointment::Appointment()
{

};
Appointment::Appointment(int timeScheduled, string patientName)
{
    patientNameP = patientName;
    timeScheduledP = timeScheduled;
};
int Appointment::GetTimeScheduled()
{
    return timeScheduledP;
};
void Appointment::SetPatientName(string patientName)
{
    patientNameP = patientName;
};
void Appointment::SetTimeScheduled(int timeScheduled)
{
    timeScheduledP = timeScheduled;
};
int Appointment::DoctorLocator(string searchNameD)
{
    for (int i = 0; i < DoctorList::size + 1; i++)
    {
        if (DoctorList::doctors[i].GetNameD() == searchNameD)
```

```cpp
        if (DoctorList::doctors[i].GetNameD() == searchNameD)
        {
            return i;
        }
    }
};
void Appointment::PrintPatients()
{
    for (int i = 0; i < PatientList::size; i++)
    {
        cout << "Name: " << PatientList::patients[i].GetNameP()
            << ", Age: " << PatientList::patients[i].GetAgeP()
            << ", Sex: " << PatientList::patients[i].GetSexP() << endl;
    }
};
void Appointment::PrintDoctors()
{
    for (int i = 0; i < DoctorList::size; i++)
    {
        cout << "Name: " << DoctorList::doctors[i].GetNameD()
            << ", Age: " << DoctorList::doctors[i].GetAgeD()
            << ", Specialty: " << DoctorList::doctors[i].GetSpecialtyD() << endl;
    }
};
bool Appointment::ScheduleOpen(int timeScheduled, int arrayLocationD)
{
    for (int i = 0; i < 8; i++)
    {
        if (DoctorList::doctors[arrayLocationD].GetOpenApp()[i].GetTimeScheduled() == 0)
        {
            if (DoctorList::doctors[arrayLocationD].GetOpenApp()[i].GetTimeScheduled() != timeScheduled)
            {
                return true;
            }
        }
    }
    return false;
};
void Appointment::ScheduleAppointment(int arrayLocationD, int timeScheduled, string patientName)
{
```

Screenshot 1 — Visual Studio, Appointment.cpp:

```cpp
            return false;
    };
void Appointment::ScheduleAppointment(int arrayLocationD, int timeScheduled, string patientName)
{
    for (int i = 0; i < 8; i++)
    {
        if (DoctorList::doctors[arrayLocationD].GetOpenApp()[i].GetTimeScheduled() == 0)
        {
            DoctorList::doctors[arrayLocationD].GetOpenApp()[i].SetTimeScheduled(timeScheduled);
            DoctorList::doctors[arrayLocationD].GetOpenApp()[i].SetPatientName(patientName);
            cout << "Appointment booked." << endl;
            break;
        }
    }
};
void Appointment::AppointmenSchedular(string patientName, int timeScheduled, string doctorName)
{
    int arrayLocationD = DoctorLocator(doctorName);
    if (arrayLocationD < 6)
    {
        if (ScheduleOpen(timeScheduled, arrayLocationD))
        {
            ScheduleAppointment(arrayLocationD, timeScheduled, patientName);
        }
        else
        {
            cout << "Appointment not available at that time." << endl;
        }
    }
    else
    {
        cout << endl <<"Your entry does not match a doctor on the doctor list." <<endl;
        cout << "Please try again." << endl;
    }
};
bool Appointment::MenuPrompt()
{
    {
        int time;
        string patient;
```

Output window:

```
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\cryptbase.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'. Cannot find or open the PDB file.
The thread 0x92c has exited with code 0 (0x0).
The thread 0x3b4 has exited with code 0 (0x0).
The thread 0x1958 has exited with code 0 (0x0).
The program '[7688] Project2Diemert.exe' has exited with code 0 (0x0).
```

Screenshot 2 — Visual Studio, Appointment.cpp (continued):

```cpp
        string patient;
        string doctor;
        string clear;
        Appointment start;
        bool end = false;
        char option = '0';

        cout << endl;
        cout << "Please choose an option below" << endl;
        cout << "                              " << endl;
        cout << "1. Print doctor list." << endl;
        cout << "2. Print patient list." << endl;
        cout << "3. Schedule appointment." << endl;
        cout << "6. End Program." << endl;
        cout << ": ";
        cin >> option;
        switch (option) {
        case '1':
            start.PrintDoctors();
            system("pause");
            system("CLS");
            break;
        case '2':
            start.PrintPatients();
            system("pause");
            system("CLS");
            break;
        case '3':
            cout << endl <<"Please enter the patient name as it appears in the patient list." << endl;
            cout << ":";
            cin >> patient;
            cout << endl << "Please enter the time you would like to book using the integer";
            cout << " format from the list below." << endl << endl;
            cout << "8  = 8:00AM" << endl;
            cout << "9  = 9:00AM" << endl;
            cout << "10 = 10:00AM" << endl;
            cout << "11 = 11:00AM" << endl;
            cout << "1  = 1:00PM" << endl;
            cout << "2  = 2:00PM" << endl;
```

Output window:

```
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\cryptbase.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\bcryptprimitives.dll'. Cannot find or open the PDB file.
'Project2Diemert.exe' (Win32): Loaded 'C:\Windows\SysWOW64\sechost.dll'. Cannot find or open the PDB file.
The thread 0x92c has exited with code 0 (0x0).
The thread 0x3b4 has exited with code 0 (0x0).
The thread 0x1958 has exited with code 0 (0x0).
The program '[7688] Project2Diemert.exe' has exited with code 0 (0x0).
```

File   Edit   View   Project   Build   Debug   Team   Tools   Test   Analyze   Window   Help

```cpp
                    cout << "10 = 10:00AM" << endl;
                    cout << "11 = 11:00AM" << endl;
                    cout << "1 = 1:00PM" << endl;
                    cout << "2 = 2:00PM" << endl;
                    cout << "3 = 3:00PM" << endl;
                    cout << "4 = 4:00PM" << endl;
                    cout << ":";
                    cin >> time;
                    cout << endl <<"Please enter the doctor's name as it appears in the doctor list." << endl;
                    cout << ":";
                    getline(cin, clear);
                    getline(cin, doctor);
                    cout << endl;
                    start.AppointmenSchedular(patient, time, doctor);
                    system("pause");
                    system("CLS");
                    break;
                case '6':
                    end = true;
                    break;
                default:
                    cout << "Your entry was invalid please try again." << endl;
                    break;
                }

                return end;
            }
        };
```