

Lab task 2

The objectives of the question are to:

- Implement the constructor, accessors and methods
- understand object composition
- write test driver to test the methods

You are required to write different class in separate files. **Your submission is expected to reflect this.**

Examine the following class specifications, additional information and answer the questions that follow:

```
class Date
{Private members :
    int dd;
    int mm;
    int yy;
public members:
    Date(int = 1, int=1,int=2017);
    void setDate(int,int, int);
    int getDD;//property
    int getMM; //property
    int getYY; // property
}

class Appointment
{
Private members
    string NRIC; //readonly
    string name;
    double fees;
    Date visit;
    Date nextVisit;
public members
    Appointment(string, string, double, Date,Date);
    void setAppt(string, double, Date,Date);
    String getVisit; //property
    String getnextVisit //property
    String getName
    void displayAppt();
    void displayAppt(string);
}
```

Additional Information:

Method	Remarks
Class: Date	
Date(int = 1, int=1, int=2015)	Constructor with default values.
void setDate(int, int, int)	Method Set data members of Date class to the pass-in values accordingly.
int getDD int getMM int getYY	Property. Return the data members of Date class respectively.
Class: Appointment	
Appointment(string, string, double, Date,Date)	Default Constructor of Appointment class. Set data

	members, <i>NRIC</i> and <i>name</i> to null, <i>fees</i> to 0.0
<code>void setAppt(string, double, Date, Date)</code>	Function Set the data members to the pass-in arguments' values accordingly.
<code>String getVisit</code> <code>String getNextVisit</code> <code>String getName</code>	Property. Return the data members, <i>visit</i> / <i>nextVisit</i> / <i>name</i> as string respectively.
<code>void displayAppt()</code>	Use <code>Console.WriteLine</code> to display the data members of Appointment class. If the data member of <i>Date</i> class is 0, display a dash '-'.
<code>void displayAppt(string)</code>	Use <i>console write function</i> to display the <i>name</i> and <i>fees</i> of Appointment class when the <i>NRIC</i> data member of the instance matches the pass-in value. Invokes <i>displayAppt()</i> ;

Note¹: When there is no next visit, the data members, *dd*, *mm* and *yy* in *Date* class are set to 0.

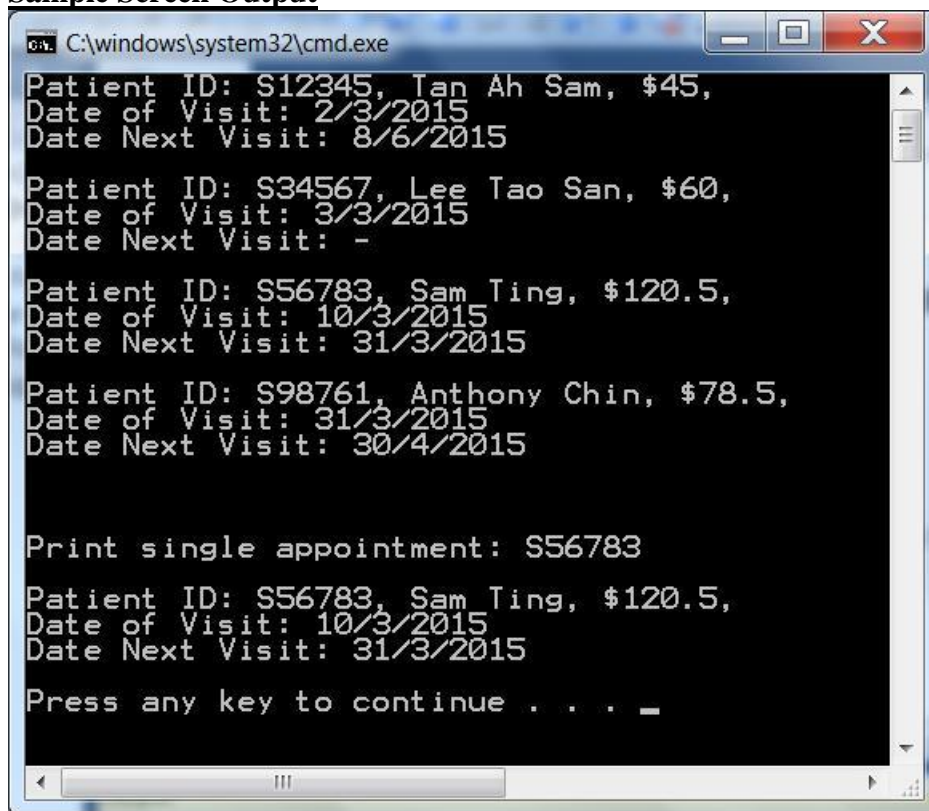
- (b) Develop C# code to implement **ALL** the methods found in the above-mentioned class specifications:
- (i) Date Class
 - (ii) Appointment Class
- (c) Write a test driver to test **ALL** the methods in the Date and Appointment classes. The test driver should include the following:
- (i) declare 4 Appointment object
 - (ii) initialised the Appointment objects with the data from the test data appended below:
 - (iii) display all appointment objects, using the default *displayAppt()* method
 - (iv) display a single appointment object, using *displayAppt(string)* method, passing in the NRIC value, "S56783".

Include a screen output similar to the sample screen output shown below in your submission.

Test Data

NRIC	Name	Fees	Date of Visit	Date of next visit
S12345	Tan Ah Sam	45.00	2 March 2015	8 June 2015
S34567	Lee Tao San	60.00	3 March 2015	-
S56783	Sam Ting	120.50	10 March 2015	31 March 2015
S98761	Anthony Chin	78.50	31 March 2015	30 April 2015

Sample Screen Output



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\windows\system32\cmd.exe'. The window contains text output for a medical appointment system. It lists four patients with their IDs, names, fees, and visit dates. The third patient, Sam Ting, is highlighted as the selected appointment. The prompt ends with 'Press any key to continue . . . _'.

```
C:\windows\system32\cmd.exe
Patient ID: S12345, Tan Ah Sam, $45,
Date of Visit: 2/3/2015
Date Next Visit: 8/6/2015

Patient ID: S34567, Lee Tao San, $60,
Date of Visit: 3/3/2015
Date Next Visit: -

Patient ID: S56783, Sam Ting, $120.5,
Date of Visit: 10/3/2015
Date Next Visit: 31/3/2015

Patient ID: S98761, Anthony Chin, $78.5,
Date of Visit: 31/3/2015
Date Next Visit: 30/4/2015

Print single appointment: S56783
Patient ID: S56783, Sam Ting, $120.5,
Date of Visit: 10/3/2015
Date Next Visit: 31/3/2015

Press any key to continue . . . _
```