

## LAB 4: Interfaces and inheritance – answers to questions

### Task 1: Using an interface

#### Questions:

- What do you think is the **reference type** for the objects displayed in the combo box?

#### **IPerson**

- What three things must the code for a class include in order to implement the *IPerson* interface?
  - **: IPerson** after class name
  - **ID** property definition
  - **GetFullName** method definition

### Task 2: Creating derived classes

- What do you think is the **reference type** for the objects displayed in the combo box?

#### **IPerson**

- What are the types of the three objects you are displaying in steps 5-7 above?

#### **Patient, Surgeon and GeneralPractitioner**

- In step 5 above, the *GetFullName* method from which class is used to display *Dr. Mark Webber*?

#### **Doctor**

- In step 6 above, the *GetFullName* method from which class is used to display *Mr Robert Kubica*?

#### **Surgeon**

- Does the *Surgeon* class implement *IPerson*? How do you know?

**Yes.** It is derived from **Doctor**, which implements **IPerson**

- Draw an object diagram for the object(s) used to display information in step 5 above.

Diagram should show a single **GeneralPractitioner** object with property values for ID, FirstName, LastName, Speciality, NumberOfPaidAppointments and Practice

## Task 3: Implementing a framework interface

### Questions:

- What part of *MyClass* is executed at the start of the using block in *Main*?

### Constructor

- What part of *MyClass* is executed at the end of the using block in *Main*?

### Dispose method

- How does the runtime know that it can call the *Dispose* method of *MyClass*?

*MyClass* implements **IDisposable** interface