Assignment #3

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Question I

Code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_0930321
{
    internal class StudentProfessorTest
    {
        public static void Main(string[] args)
        {
            Console.WriteLine("************** Question I **************");
            Console.WriteLine("--------------------------------------");
            Person p1 = new Person("Raman", 25);
            p1.Greet();
            Console.WriteLine();

            Student s1 = new Student();
            s1.SetName("Nora");
            s1.SetAge(27);
            s1.Greet();
            s1.ShowAge();
            s1.Study();
            Console.WriteLine();

            Professor prof1 = new Professor();
            prof1.SetName("Prof. Veinna");
            prof1.SetAge(50);
            prof1.Greet();
            prof1.Explain();
        }
    }
}


using System;
using System.Collections.Generic;
using System.Linq;
```

```csharp
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_0930321
{
    internal class Person
    {
        private string name;
        private int age;

        public Person() {
            this.age = 20;
            this.name = "John";
        }

        public Person(string name)
        {
            this.name = name;
        }

        public Person(string name, int age)
        {
            this.name = name;
            this.age = age;
        }

        public void Greet()
        {
            Console.WriteLine("Hello " + this.name + "! Welcome to the coding
Assignment!");
        }

        public int GetAge()
        {
            return age;
        }
        public int SetAge(int age)
        {
            this.age = age;
            return this.age;
        }

        public string SetName(string name)
        {
            this.name = name;
            return this.name;
        }
    }
}




using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```csharp
namespace Assignment3_0930321
{
    internal class Student: Person
    {
        public Student() {

        }
        public void Study()
        {
            Console.WriteLine("I'm studying");
        }

        public void ShowAge()
        {
            Console.WriteLine("My age is: " + this.GetAge() + " years old" );
        }

    }
}




using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_0930321
{
    internal class Professor: Person
    {
        public void Explain()
        {
            Console.WriteLine("I'm explaining.");
        }
    }
}
```
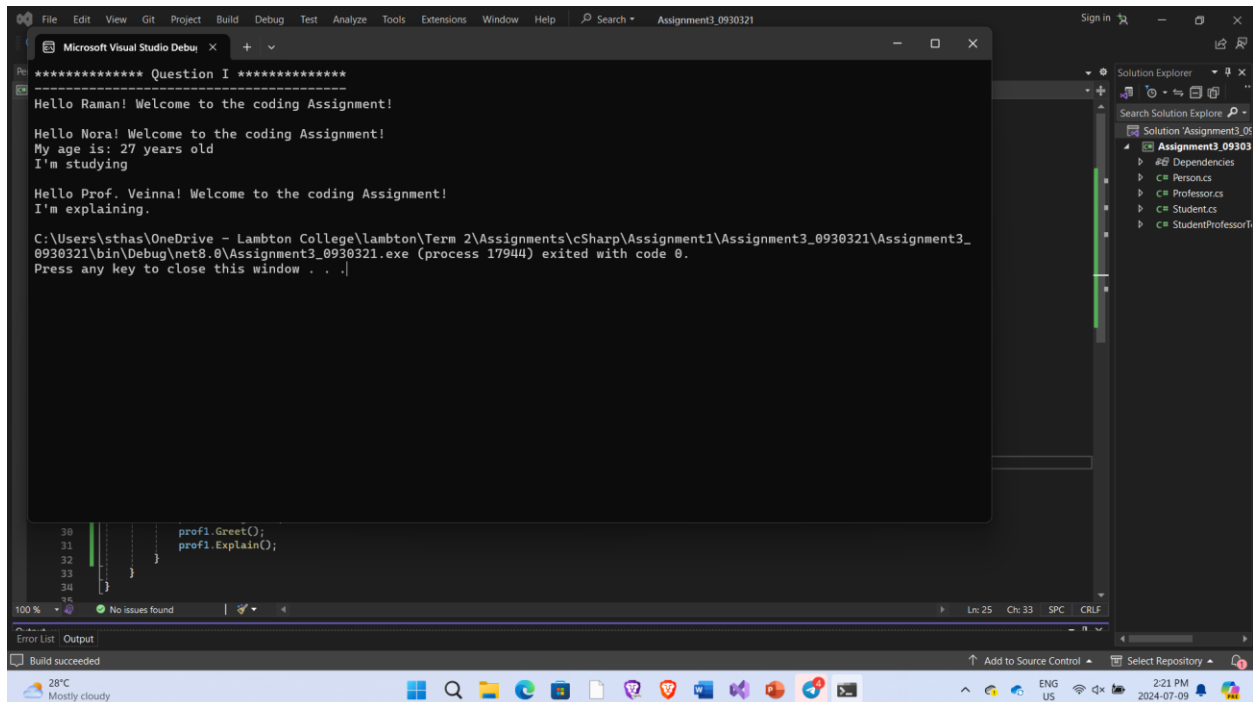
Output Screenshot

Question II:

Code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_c0930321_quest2
{
    internal class PhotoBookTest
    {
        public static void Main(string[] args)
        {
            Console.WriteLine("************** Question II ***************");
            Console.WriteLine("----------------------------------------------");
            PhotoBook Pbook = new PhotoBook();
            Console.WriteLine("The total number of pages are: " +
Pbook.GetNumberPages());

            PhotoBook Pbook1 = new PhotoBook(24);
            Console.WriteLine("The total number of pages are: " +
Pbook1.GetNumberPages());

            BigPhotoBook BigPhotoBook1 = new BigPhotoBook();
```

```csharp
                Console.WriteLine("The total number of pages are: " +
BigPhotoBook1.GetNumberPages());
        }
    }
}




using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_c0930321_quest2
{
    internal class BigPhotoBook: PhotoBook
    {
        public BigPhotoBook() {
            numPages = 64;
        }
    }
}




using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Assignment3_c0930321_quest2
{
    internal class PhotoBook
    {
        protected int numPages;

        public PhotoBook() {
            numPages = 16;
        }

        public PhotoBook(int pages)
        {
            numPages = pages;
        }

        public int GetNumberPages()
        {
            return numPages;
        }
    }
}
```

```
*************** Question II ****************
-------------------------------------------
The total number of pages are: 16
The total number of pages are: 24
The total number of pages are: 64

C:\Users\sthas\OneDrive - Lambton College\lambton\Term 2\Assignments\cSharp\Assignment1\Assignment3_c0930321_quest2\Assi
gnment3_c0930321_quest2\bin\Debug\net8.0\Assignment3_c0930321_quest2.exe (process 10432) exited with code 0.
Press any key to close this window . . .
```