**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;

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;

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

A screenshot of a computer

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# 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();

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;

}

}

}

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