OOP in C# Questions & Answers 22.1 SE Plymouth

Answers - https://github.com/damithadev/C-sharp-tutorials

Console Application

Q1. Display the user entered user name and does eligibility of voting (age > 18)

Q2. Create a C# console application project to get 2 integer inputs from the user and check 1st input can divisible by second input

Q3. Create a C# console application project to get an integer input and if the input is less than 100 display all natural numbers till 100 from the user inserted value. Unless display error message.

Q4. Create a C# console application project and display answers for basic arithmetic operations based on 2 user input values.

Q5. Create a C# console application project to calculate to area and circumference of a circle when user inserted the radius value

Q6. Create a C# console application project to get 10 integer values form user and fined out how many even and odd inputs are there.

Q7. Create a C# console application project to assign following integers into array and find the min and max 25, 41, 10, 78, 68, 36, 89, 37

Q8. Create a C# console application project to create a empty array and get user inputs (size = 10) and find min and max.

Q9. Create a C# console application project using any sorting algorithm and sort the user inserted values to ascending and descending order.

Q10. Create a C# console application project to declare an integer 2 dimension array which constraints 2 rows and 4 columns and get user inputs. After getting inputs display array elements in 2x4 metrix.

Q11. Create a C# console application project which contains an added class called employee and inside the class create a no return type no parameter method called “impinfo”
Inside the method get user name and age as an input values and display them inside the method itself. Create a class objects accordingly and called above method.

Q12. Create a C# console application project which contains a added class called “calculation” and inside the class create a method called “Converter” (no return type, no parameter). Inside the method get KM value from user and convert into CM and display output.

Q13. Create a C# console application project with added class called “calculator”. Inside it create a method called “sum” which will take 2 integer inputs then find a summation and answer will be returning out of the function. Create necessary class objects and call it.

Q14. Create a C# console application project to get 2 integer numerical inputs from the main method and pass them to a class called “calculation”. Inside the class create a method called “summation” and get user inserted values as parameters. Inside the method find the summation of above parameters and display the answer.

Q15. Create a C# console application project which contains a class called “validation” and method called “Eligibility” which take users age as a parameter. Inside the method display if user is above 21 years old. Unless display not eligible.

Q16. Create a C# console application project which contains 2 classes called summation and multiplication both of these classes are containing a method called operation which take 2 integer parameters.

The above method will do the respective operation and display the answer in the method itself. From the main method get 2 user inputs and pass them to classes to get the finale answer.

Q17. Create a C# console application project which contains class called “employee” and a method called “salaryCalculation”. And that method should take a parameter which is the working ours of the employee. If employee work more than 10 hours and less than 20 hours (10 < 20) he get rs25000.

Eg:

10 < 20 = rs 25000

20 < 30 = rs 45000

30 < = rs 60000

10 > 5000

Return the finale salary from the method to main class and display the answer.

Q18. Create a C# console application project including a class called “calculator” which contains 4 methods called sum, sub, mul, div. Each method is taking 2 double parameters and do the operation and return the answer out od the method. In main method display following key to the user and get the user choice based on that. Activate the above methods from it.

1. Summation
2. Subtraction
3. Multiplication
4. Division

Q19. Create a C# console application project and create 2 classes “student”, “studentInfo”. Inside the student class create a method called “stdData” and get username as an input. Return that name to this studentInfo class.

Inside studentInfo class create a method called “stdInfo” and get user age and display the username age inside stdInfo method.

Q20.

i) Create a C# console application project contain a class called “employee” and inside the clas create a default constructor then display “helloworld”.

ii) Add no return type no parameter method to employee class to display your name.

Q21. Create a C# console application project with class called “person” where the person class is having a parameterized constructor with 2 integer parameter. Inside the constructor display the summation of 2 integer parameters.

Q22. Create a C# console application project and add private variable to get encapclass and complete relevant getters and setters. The private variable should be a “name”.

Q23 to Q26 from worksheet given by the lecturer.

Q23. What would be the output of following program?

```
using System;
namespace MyConsoleApp
{
    public class Hello
    {
        public int a = 100;

    }
}


using System;

namespace MyConsoleApp
{
    class MainClass
    {
        public static void Main(string[] args)
        {

            Hello hello = new Hello();

            Console.WriteLine("Your age is: " +hello.a);


            Console.ReadLine();

        }
    }
}
```

Q24. In above program what will happen if the variable ‘a’ has private access modifier in Hello

Class? Explain your answer.

Q25. Read the following instructions and create the console application program

• Create a class call EncapData.cs and create two private variables to store radius value and pi value.

• Inside the main class you have to get the radius value from the user and pass it to EncapData.cs Class.

• Inside EncapData.cs class create getters and setters to find the Area of the circle and to find the circumference of the circle.

• Return the answers from the EncapData.cs Class

• Display the answers inside Main class (program.cs).

Q26. Create a Console application program which contain an encapsulation class for four basic arithmetic operations. Inside the encapsulation class you should have two private variables and getters and setters for basic arithmetic operations. Then return answers for summation, subtraction, multiplication and division and print them on main method.

Q27. Create a Console application program and a create base/parent class called “Tyre” and inherit that parent class into another created 2 child classes called “Scooter” and “car”.

Q28. Create a Console application program with 2 classes called “Faculty” and “DegreeProgram”. Inside faculty class create a public integer variable called student and assign 100 to it. And DegreeProgram class should inheriting from the faculty class. Inside faculty class create public no return type method called “Details” and inside the method display that variable (student) which is created in the Degreeprogram class. Inside the Program.cs class create suitable object and call the “Details” method using that object.

Q29. Create a Console application program and create 2 classes called “Dog” and “animal”. Inside dog class create method and inside the method display “I have 4 legs” and this dog class should inherit from the animal calss. Inside animal calss create method and inside that method display “I am an animal”.

Finally inside the program.cs class display “I am an animal I have 4 legs” using only that dog and animal classes.

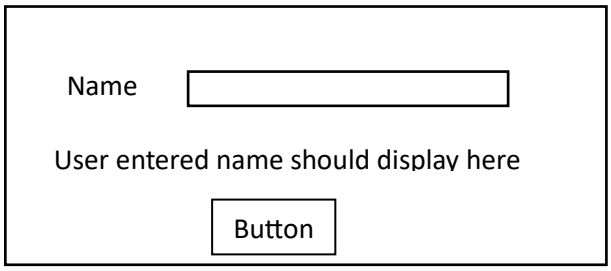
Windows Form Applications

Q30. Create a windows form application which contains label and button. Once user click the button label text should be convert into Hello World.

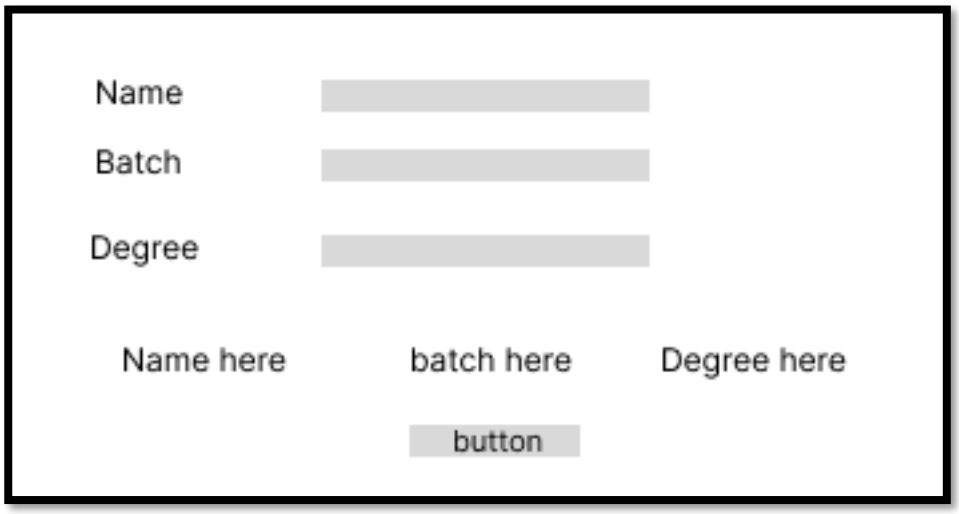
Q31. Create a windows form application which contains 3 buttons blue, yellow and red. Once user click above button background color of the form should be change accordingly.

Q32. Create a windows form application which contains label and button. Once user click the button the button clicked count should be displayed inside the label.

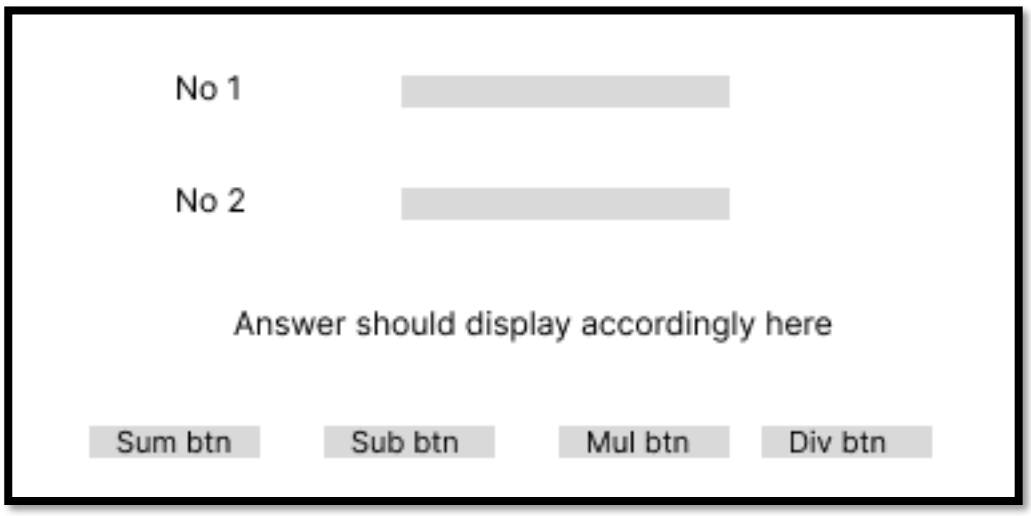
Q33.



Q34.



Q35.



Q36. Create a windows form application when user click on the login button on login form user should navigate into Home window (new form) and disable (hide) the login form.

Q37. Assume that that there is an application to find out the division value of 2 given numbers. For the 2nd number id user input 0 mistakenly application will get crashed due to an exception. Handle this exception using try catch block.

Q38. Convert given liter values to milliliter values. Use exception handling to avoid inserting character basis values to liters by the user.

Q39. DB Connections