**Exam #2**

**Answer Sheet**

**CS 3260-001**

**C# .NET Software Development**

**Dates 10 April - 17 April 2014**

**Instructor: Dennis A. Fairclough**

1. You are bound to the Terms & Conditions Agreement Document.
2. Due on or before 17 April, 2014 at the beginning of class.
3. 20 points will be deducted from your score if you are NOT in class

to grade your exam!

**Exam**

**Number**Student Name: \_\_\_\_\_Franklin Colton Parry \_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_

All multiple choice questions are worth two (2) points each. All other questions are worth the point value shown to the right of the question number.

For multiple choice questions enter the correct answer on the exam.

1. F
2. A
3. D

1. F

1. C
2. F
3. C
4. B
5. C
6. F
7. C
8. B

1. F

1. I
2. A
3. C
4. B

1. D
2. D
3. D
4. E

22) D

23) F

24) B

25) G

26) C

27) D

28) D

29) D

30) F

31)  H

32) F

33) C

1. B
2. A
3. G
4. G
5. A
6. B
7. C
8. F
9. E
10. G
11. E
12. E
13. E
14. B, C, D, F, G
15. F
16. C
17. C

Okay, here are all the “evaluate or write the code” problems. Again, compiler error is an option and if your detect such an error, fix the error and continue with the problem! Your code MUST be elegant, efficient, optimal, professional and demonstrate that you understand in-depth the to write the best code!

51) (5 pts)

            public static void extMethod(this string str)

            {

                string pattern = "^[F|S][aeiou]{1}[A-Za-z]+a{2,}?|^[F|S][aeiou]{1}[A-Za-z]+A{2,}?";

                string invalidString = "Is not a match";

                if (Regex.IsMatch(str, pattern))

                {

                    Console.WriteLine(str);

                }

                else

                {

                    Console.WriteLine(invalidString);

                }

                Console.WriteLine();

            }

52) (5 pts)

public class GenericClass<T1, T2>

{

const int SIZE = 5;

public T2[] arr;

private T1 something;

public T1 Something

{

get { return something; }

set { something = value; }

}

public void GenericClass() { arr = new T2[SIZE]; }

public void GenericClass(int var1) { arr = new T2[var1]; }

public void displayVar(T1 var1) { Console.WriteLine(var1); }

public T2 this[int i] { get { return arr[i]; } set { arr[i] = value; } }

public delegate void Del<T1>(T1 var2);

}

53) (5 pts)

delegate bool del(string[] arr);

static void Main(string[] args)

{

string[] myArray = {"Tested", "Street", "Fireed", "Fire", "none"};

for (int i = 0; i < myArray.Length; i++)

{

del myDel = param => Regex.IsMatch(myArray[i], "^[St|Fi][A-Za-z]+[e]{2,}[A-Za-z]+");

bool resp = myDel(myArray);

if(resp == true)

Console.WriteLine(myArray[i]);

}

}

54) (5 pts)

decimal \_cdata;

public decimal \_Cdata

{

get { return \_cdata; }

set {

if (value >= 0 && value < 15000000)

\_cdata = value;

else

\_cdata = 0;

}

}

55) (5 pts)

private Data auto { get; set; }

private Data readOnly; (backing field)

public Data ReadOnly

{

get { return readOnly; }

}

T genericP { get; set; }

The name of the backing field is readOnly

56) (5 pts)

MDel = (w, x, y) => {if ((w + x) > 10 && y == 'B') return 'A'; else return 'Z';};

MDel = (p, q, r) => { if ((p + q) < 0) return r; else return 'x'; };

Void DoEverything(Func<int, int,char> (MDel = (p, q, r) => { if ((p + q) < 0) return r; else return 'x'; }))

{

……

}

57) (5 pts)

58) (5 pts)

Complier Error

Error 1 'ConsoleApplication2.Data.Data()': access modifiers are not allowed on static constructors

Error 2 A static member 'ConsoleApplication2.Data.ToString()' cannot be marked as override, virtual, or abstract

Error 3 Cannot declare a variable of static type 'ConsoleApplication2.Data'

Error 4 Cannot create an instance of the static class 'ConsoleApplication2.Data'

Error 5 An object reference is required for the non-static field, method, or property 'object.ToString()'

Error 6 Member 'ConsoleApplication2.Data.GetString()' cannot be accessed with an instance reference; qualify it with a type name instead

Error 7 Literal of type double cannot be implicitly converted to type 'float'; use an 'F' suffix to create a literal of this type

Error 8 Literal of type double cannot be implicitly converted to type 'float'; use an 'F' suffix to create a literal of this type

59) (5 pts)

Compiler Error

Error 1 Cannot convert lambda expression to delegate type 'System.Func<char,double,double,int>' because some of the return types in block ar enot implicitly convertible to the delegeate return type

Error 2 Cannot implicitly convert type 'double' to 'int'. An explicit conversion exists (are you missing a cast?)

Error 3 No overload for method 'GetInfo' takes 1 arguments

W/O comments 882 & True or 843 & False

60) (5 pts)

Data $12,345.66 : Because the {0:C} formats the the decimal number as currency

61) (5 pts)

Error ComplexData2 does not exist

If you meant ComplexResult

2.2 3.3

3.3 2.2

9.9 13.2

62)

|  |  |
| --- | --- |
| **Input** | **Result** |
| Wd40 | No Match |
| Adam12 | No Match |
| eBay | Match eB |
| x400 | Match x4 |

63) (5 pts)

There is no error checking. Typically a stream reader is put into a Try / Catch / Finally block with error checks to make sure that that stream was opened successfully. Then the programmer closes the stream after reading only one line. This is fine if that is the intent of the programmer, but this could cause a slow program if the file needs to be read multiple times, or multiple lines,

64) (5 pts)

foodlfooMfoo

foo

foo

foo

65) (5 pts)

66) (5 pts)

var sortedData = from d in data

orderby d descending

select d;

foreach (var d in sortedData)

{

Console.WriteLine(d);

}

67) (5 pts)

static void Main(string[] args)

{

const int SIZE = 1000;

int upperLimit = 500;

Random rn = new Random();

int[] data = new int[SIZE];

for(int i = 0; i < SIZE; i++)

{

data[i] = rn.Next(0, upperLimit);

}

var evenData = from d in data

where d % 2 == 0

select d into E

orderby E descending

select E;

var oddData = from d in data

where d % 2 != 0

select d into O

orderby O descending

select O;

foreach (var E in evenData)

{

Console.WriteLine(E);

}

foreach (var O in oddData)

{

Console.WriteLine(O);

}

Console.ReadLine();

}// end main

68) (5 pts)

69) (5 pts)

S0 is an empty string, because that’s what was declared;

S1 is a reference to a nothing and will give a compiler error because the reference has not been set

70) (5 pts)

**This is illegal, because the ++ operator works on variables, properties or indexers, when you put it in parenthesis it changes it to an object and thus it does not work.**

**That’s all folks!**