Multiple Choice Questions (with solutions)

<https://csci-1301.github.io/about#authors>

April 5, 2024 (12:47:55 PM)

Table of Contents

1. Why are the instructors sharing most of the material in odt, docx, pdf, html and md?
	* ☐ To insure compatibility across operating systems (Android, Linux, Windows, MacOs, …).
	* ☐ To make it easier to access the resources in multiple ways (print, screen, etc.)
	* ☒ All of the above.
2. What does “free” software means?
	* ☐ That the software has no value.
	* ☒ That the users can run the software for any purpose and study its source code.
	* ☐ That it is not developed by a company.
	* ☐ That the software can be downloaded at no cost.
3. In your IDE, the shortcut to compile your program is usually…
	* ☒ “Build your solution”, ctrl + shift + B or Cmd + B
	* ☐ “Save”, ctrl + S or Cmd + S
	* ☐ “Exit”, alt + F4 or Cmd + q
	* ☐ “Start without debugging”, Ctrl + F5 or Cmd + F5
4. To share or backup a project, you need to…
	* ☐ share the .sln file.
	* ☐ share the .cs file.
	* ☐ share the .csproj file.
	* ☒ zip the folder containing the .sln file and another folder with multiple files and folders in it.
5. If your IDE returns the message
* Program.cs(21,21): Error CS0117: 'Console' does not contain a definition for 'WiteLine' (CS0117) (Solution)
* This means that…
	+ ☒ That you misspelled the word “WriteLine”.
	+ ☐ Your program successfully compiled and is ready to be executed.
	+ ☐ That the “Console” class does not exist.
	+ ☐ Your IDE was not properly installed and you should reboot your computer.
1. Consider the following code:
* int age, defaultChoice = 0;
decimal averagePrice;
* Which of the following is correct?
	+ ☐ It contains declaration and initialization statements.
	+ ☐ It declares variables of two different datatypes.
	+ ☐ Only the value of defaultChoice is set.
	+ ☒ All of the above.
1. Consider the following code:
* int person = 12;
int pie = 5;
int piePerPerson = pie / person;
Console.WriteLine("Each guest gets " + piePerPerson + " pie(s).");
* What will be displayed by it?
	+ ☐ Nothing: an error will prevent from compiling it successfully.
	+ ☐ “Each guest gets 2.4 pie(s).”
	+ ☐ “Each guest gets 0.41666666666666666666666…” (it will never ends, displaying 6 forever).
	+ ☐ “Each guest gets 0.416666666666667 pie(s).”
	+ ☒ “Each guest gets 0 pie(s).”
1. Consider the following statement:
* decimal balance = 2.5M;
decimal price = 12;
decimal remainingBalance = balance - price;
* Which of the following is correct?
	+ ☐ This program will not compile because the result of balance - price is not a decimal.
	+ ☐ This program will not compile because a decimal cannot be negative.
	+ ☒ This program will compile.
	+ ☐ This program will not compile because you cannot store an integer value (12) in a decimal.
1. The method used to read a string from the user is called…
	* ☐ ReadString
	* ☐ ReadFrom
	* ☒ ReadLine
	* ☐ ReadInput
2. Consider the following program:
* Console.WriteLine("Enter your age.");
string fromUser = Console.ReadLine();
int age = \_\_\_\_\_\_\_ (fromUser);
* To correctly be able to store the string in fromUser into age, you should replace \_\_\_\_\_\_\_ with…
	+ ☐ (int)
	+ ☒ int.Parse
	+ ☐ Nothing: as long as the user enters an integer value, we can store it into age just fine.
	+ ☐ None of the above.
1. What are, respectively, the return types of a constructor and of a ToString method?
	* ☒ Constructors do not have a return type, and a ToString method returns a string.
	* ☐ Constructors and ToString methods both return strings.
	* ☐ Constructors returns a string, and a ToString method does not return anything (it simply displays a text).
	* ☐ It is impossible to know ahead of time, as this depends of the class they are implemented in.
2. What is the name of a constructor method?
	* ☐ Nothing: an error will prevent from compiling it successfully.
	* ☒ Whatever the name of the class is.
	* ☐ It does not have any.
	* ☐ The name of the instance it creates.
	* ☐ Constructor
3. What are the three logical connectives in C# (that we studied)?
	* ☒ And (&&), or (||) and negation (!).
	* ☐ Equality (==), greater than (>) and less than (<).
	* ☐ And (and), or (or) and negation (not).
4. Which of the following will evaluate to true?
	* ☐ 3 > 1 && 2
	* ☒ (3 > 1) && 1 != 0
	* ☐ !(3 > 1)
	* ☐ 3 > 1 || 2
5. Will the following expression evaluates, and if so, what will it evaluate to?
* true == false || 2 / 1 > 0 && 3 - 1 != 2 \* 0.5 + 0.5
* evaluates?
	+ ☐ It will evaluate to a number.
	+ ☐ It will evaluate to false.
	+ ☒ It will evaluate to true.
	+ ☐ It will not evaluate.
	+ ☐ None of the above.
1. What will be displayed by the following code?
* int number = 10;
while (number <= 15)
{
 number+=2;
 Console.Write(number + " ");
}
	+ ☒ 12 14 16
	+ ☐ 10 11 12 13 14 15
	+ ☐ 10 11 12 13 14
	+ ☐ 10 12 16
	+ ☐ 10 12
	+ ☐ 10 12 14
	+ ☐ 12+14+16
	+ ☐ 10+11+12+13+14+15
1. What will be displayed by the following code?
* int i = 0;
while(i < 10)
{
 Console.WriteLine(i);
}
	+ ☒ 0 followed by a new line, forever.
	+ ☐ 0 1 2 3 4 5 6 7 8 9
	+ ☐ 0 1 2 3 4 5 6 7 8 9 with a new line between each number
	+ ☐ Nothing
1. Consider the following code:
* Console.WriteLine("Enter… something!");
int answer;
bool valid = int.TryParse(Console.ReadLine(), out answer);
Console.WriteLine($"returns: {valid}, value:{answer}");
* If the user enters “Train”, then it will display:
	+ ☒ returns: False, value: 0
	+ ☐ returns: True, value: 0
	+ ☐ returns: True, value: Train
	+ ☐ returns: False, value: Train
	+ ☐ Nothing: the program will crash.
1. Consider the following code:
* string answer;
Console.WriteLine("Enter something");
answer = Console.ReadLine();
while (answer != "yes" || answer !="Yes"){
 Console.WriteLine("Enter something");
 answer = Console.ReadLine();
}
* What can the user enters to *exit* this loop:
	+ ☒ There is nothing the user can enter to exit this loop
	+ ☐ Either “Yes” or “yes”
	+ ☐ Anything that is different from “Yes” and “yes”
	+ ☐ Anything
1. Consider the following code:
* int answer;
Console.WriteLine("Enter something");
answer = int.Parse(Console.ReadLine());
while (answer > 10 && answer < 100){
 Console.WriteLine("Enter something");
 answer = int.Parse(Console.ReadLine());
}
* What can the user enters to *exit* this loop?
	+ ☒ Any number not between 10 and 100 (both included)
	+ ☐ Any number between 10 and 100 (both included)
	+ ☐ Any number between 10 and 100 (both excluded)
	+ ☐ Any number not between 10 and 100 (both excluded)
1. What is the correct way of creating an array of int of size 5 named myArray?
	* ☒ int[] myArray = new int[5];
	* ☐ int[] myArray = int[5];
	* ☐ int[5] myArray = new int[];
	* ☐ int[4] myArray = new int[];
	* ☐ int myArray = new int[5];
	* ☐ int[] myArray = new int[4];
	* ☐ int[] myArray = new int(5);
	* ☐ int[] myArray = int[4];
2. Consider the following code:
* int[] grades = {10, 20, 5, 15};
Console.WriteLine(grades[2]);
* What will it display?
	+ ☒ 5
	+ ☐ Nothing
	+ ☐ 20
	+ ☐ 15
	+ ☐ grades
	+ ☐ grades[2]
	+ ☐ 10
1. Consider the following code:
* char[] grades = {'A', 'B', 'C', 'D', 'F'};
int i = 0;
while(i < grades.Length){
 i++;
 Console.WriteLine(grades[i]);
}
* Something is wrong with it, can you tell what?
	+ ☒ There will be an “Index was outside the bounds of the array.” error.
	+ ☐ The array is not properly initialized.
	+ ☐ The loop is infinite
	+ ☐ grades.Length is not declared.
1. What will be displayed by the following code?
* for (int e = -5; e <= 20; e += 5)
{
 Console.Write(e + " ");
}
	+ ☒ -5 0 5 10 15 20
	+ ☐ -5 0 5 10 15
	+ ☐ 0 5 10 15
	+ ☐ -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
	+ ☐ Nothing
	+ ☐ 0 5 10 15 20
1. What will be displayed by the following code?
* int variable = 0;
for (int e = 1; e <= 5; e += 1)
{
 variable += e;
}
Console.WriteLine(variable);
	+ ☒ 15
	+ ☐ 0
	+ ☐ Nothing
	+ ☐ 1 2 3 4 5