

Event Driven Programming

Review Question



Chalew Tesfaye

Department of Computer Science

Debre Berhan University

2016

Quiz -1 (5)

1. Which of the ff a valid C# variable name?
 - A. new
 - B. 1stYear
 - C. grade
 - D. father-name
2. Give an example for implicit and explicit type casting.
3. Declare a boolean variable called `isFemale` and assign an appropriate value corresponding to your gender.
4. Write an expression that checks if given integer is odd or even.
5. Write an expression that calculates the area of a circle with radius 10(eqn: $a = \pi r^2$).

Quiz -1-2 (5)

1. Which of the ff **invalid** C# variable name?
 - A. newYear
 - B. firstYear
 - C. father-name
 - D. grade
2. Give an example for implicit and explicit type casting.
3. Declare a boolean variable called **isMale** and assign an appropriate value corresponding to your gender.
4. Write an expression that checks if a given integer is odd or even.

Quiz -2 (5)

1. What is the difference between `while` and `do ... while` loop?
2. Write the output of the ff code fragment.

```
byte x = q;    //where q is one of the ff question number. i.e. x=3, x=4, x=5, x=6 or x=7
Console.WriteLine( "Shift of {0} is {1}.", x, x<<2);
```

_____.
3. Write a program to allow a user to guess a number(from 1 to 6) that will be randomly generated by computer.
4. Write a program that finds the greatest of given 3 integer numbers.
5. Write program that asks for a digit[0-9] and depending on the input shows the name of that digit (in English) using a switch statement.
6. Write a program that prints all even numbers from 1 to 20.
7. Write a program that lists all the months in a year using foreach loop.
8. Write a program that accepts total mark and displays letter grade for a course.

Quiz -2-2 (5)

1. What is the difference between `while` and `do ... while` loop?

2. Write the output of the ff code fragment.

```
sbyte x = -q;    //where q is one of the ff question number. i.e. x=-3, x=-4, x=-5, x=-6 or x=-7
Console.WriteLine( "Shift of {0} is {1}.", x, ~x<<3);
```

_____.

3. Write a program that finds the greatest of given 3 integer numbers .

4. Write program that asks for a digit[0-9] and depending on the input shows the name of that digit (in English) using a `switch` statement.

5. Write a program that prints all even numbers from 1 to 20.

6. Write a program that lists all the months in a year using `foreach` loop.

Take time:10' (Group Work)

1. Write the output of the ff code fragment.(show the steps how the computer executes)

```
sbyte x = -8;  
Console.WriteLine( "Shift of {0} is {1}.", x, ~x<<3);
```

2. Write a program that accepts three integer numbers and finds the greatest number and also display whether each numbers are even or not..
3. Write a program that calculates the value of a quadratic equation ($x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$).
4. Write program that accepts monetary statement in digits and displays in words (in English) using a **switch-case** statement. (e.g **10 : Ten Birr Only**)
5. Write a program that prints the sum of all numbers which are odd and divisible by 3 from 1 to 1000.
6. Write a program that accepts total mark and credit hour; and calculates grade point and determines letter grade for a course.
7. Write a program that lists all the months in a year using **foreach** loop, displays the month and list of national holiday(s) in that month if any.
8. Write a program that accepts gross salary and calculates net salary of an employee.

Date and Time >> Exercise : 10'

1. write a code that accepts birth date of a user and calculates its age along with number of months and days if any.
2. Write a program that converts Ethiopian calendar to Gregorian calendar and vice versa.

Working on String >> Take Time: 10'

1. Write a program that reads a string, reverses it and prints it on the console. Example: " Example " to "elpmaxE".
2. Write a program to check if in a given expression the brackets are put correctly. Example of correct expression: ((a+b)/5-d). Example of incorrect expression:)(a+b)).
3. Write a program that finds how many times a substring is contained in a given text (perform case insensitive search). Example : substring "to" in:
we are going to school to learn.
The result is : 2
4. We are given a string containing a list of forbidden words and a text containing some of these words. Write a program that replaces the forbidden words with asterisks.
5. Write a program that reads a list of words, separated by spaces and prints the list in an alphabetical order.

Source: Svetlin Nakov and et al. Fundamentals of Computer Programming With C#. Sofia, 2013

Array >> Exercise

- Write a program that accept two arrays of integer with n elements and display an array that contain the sum of each element of the first two arrays.
- Write a program that sorts an array of strings using the **quick sort** algorithm
- Write a program that finds the index of given element in a sorted array of integers by using the **binary search** algorithm

THANK YOU!

