C# Programming Homework 10

Chapter 10, C# Step by Step

Readings

Read chapter 10 in the C# Step by Step book.

Discussion Questions

Answer the discussion questions in writing.

1. What does an array look like in memory?

It looks like a contiguous block of memory.

1. Where is memory allocated to hold an array, on the stack or on the heap?

On the heap

1. Where is memory allocated to hold an array reference, on the stack or on the heap?

On the stack

1. Can an array hold values of different types? This is a trick question, the answer is, “It depends." What

determines the types that an array can hold?

The size of the array.

1. Describe the syntax of the condition for a foreach loop.

Foreach(Type name operator array)

1. How do you make a deep copy of an array?

Use the appropriate code in a for loop element by element

1. What is the difference in the syntax between a multi-dimensional array and an array of arrays?

Multi dimensional arrays int [ , ]

Jagged Arrays int [] []

8. What is the difference in the uses for a multi-dimensional array and an array of arrays? In other words,

what determines whether you would use one as opposed to the other?

Multi dimensional arrays are always flat, array of arrays in customizable in size which makes it better.

9. How do you “flatten" a multidimensional array? In other words, take something that looks like a

matrix

2

4

1 2 3

4 5 6

7 8 9

3

5 and turn it into an array [1; 2; 3; 4; 5; 6; 7; 8; 9]? Write the code to do this in English.

Use loops

10. (Thought question) When we use a for loop, we can change the values of the array elements inside

the loop. When we use a foreach loop, we cannot change the values of the array elements inside the

loop. Why not? How is for different from foreach? For loops grants access to the memory location