Adnane homework exercise 02:

This is all in C# unless otherwise specified.

Write all the syntax of an array 1-5 dimensions:

Write the code to clear an array:

Write the code to see the dimensions of an array:

Write the code to print each element of an array use all methods:

Code a way to change the variables in an array use all methods:

The GetLength method is used to get the number of rows and columns in the array code this:

List all the ways to initialize a string variables:

Write all the code for all the methods for C-String: (try using chat GPT)

Describe a struct and why it should be small as possible:

Describe the guidelines of structs:

When to use a struct:

Describe the fileinfo class:

Describe the directoryinfo class:

Code a simple fileinfo class:

Code a simple directoryinfo class:

Describe the characteristics of a class then code ONE: (declare and usage)

Describe real world cases to use a class:

Describe the characteristics and usage of a method:

Code a method:

Describe Characteristics and cases of Constructors:

Code declaration and usage of a constructor:

When to use inheritance and composition:

Code a inheritance:

Code a composition:

Describe a pointer:

Declare a pointer:

Initialize a pointer:

Dereference a pointer:

Describe pointer arithmetic and code:

Explain unsafe context and code the pointer:

Explain a fixed statement and code the pointer:

Describe the restrictions of a pointer:

Describe the restrictions of a pointer:

Describe the use of pointers:

Describe the safety considerations of pointers:

Describe the characteristics of abstract and virtual members:

Describe the difference between abstract and virtual members:

When to use virtual and abstract members:

Code a virtual member:

Code an abstract member:

Key differences between overloading and templates:

Describe the usage of overloading and templates:

Code overloading and usage of overloading:

Code template and usage of templates:

Code a try and catch block:

Syntax:

Example:

Code a throw statement:

Syntax:

Describe best practices of a throw statement:

Describe Recursion and considerations:

Describe TCO:

Code a basic example and usage of Recursion:

Descried and code the 2 methods of searching:

Describe and code sorting of arrays, lists, and custom:

Describe and code vector types:

Describe the advantages of linked lists and disadvantages:

How to clear a linked list:

Create a linked list:

List the basic operations of a linked list and code it:

List advance operations of a linked list and code it:

The advantages and disadvantages of stacks and ques:

Code an example of stacks:

Code an example of ques:

Describe the uses of stack and ques:

Thank you for completing this homework assignment!