C# Programming Homework 09

Chapter 09, C# Step by Step

Readings

Read chapter 9 in the C# Step by Step book.

Discussion Questions

Answer the discussion questions in writing.

1. What is an enum?

Enumeration. To mention things one by one or to make clear the number of things, giving a series of numbers names

1. Declare an enum for military ranks, either officer or enlisted. Name it Ranks. What are the symbols,

like Private, Corporal, Sergeant or Lieutenant, Captain, Major?

Enum ranks {pvt, pv2, pfc, spc, sgt, ssg, sfc, 1sg, sgm}

1. Using the Ranks enum, assign a rank to yourself and a friend.

Ranks Nijii = ranks.sgt

1. Determine the numeric index of particular ranks, using the Ranks enum.

Pvt = 0, PV2 = 1, Pfc = 2, SPC = 3, Sgt = 4, Ssg = 5, Sfc = 6, 1sg = 7, Sgm = 8

1. How do you select the type of an enum?

With a colon followed by the type

1. What is a struct?

A value type that is stored on the stack with it’s own fields, methods, and constructors.

1. List some differences between classes and structs.

Struct is stored on the stack, Class in stored on the heap. Struct is value type, Class is reference type. A struct doesn’t support inheritance and polymorphism but class supports both. All structs are public by default by classes are private by default.

1. Are structs stored on the stack or on the heap? What about enums?

Both are stored on the stack

1. Review the documentation for the C# System.Int32 struct. List the fields. List the methods.

MaxValue, MinValue

1. Declare a struct named DOD with four branches.

Struct DOD

{

Public string Army,

Public string Navy,

Public string Marines,

Public string Air Force,

};

1. Why can't you create a default constructor for a struct?

A C# struct is associated with value type semantic and a value type is not required to have a constructor, C# does not allow value types to be parameterless.

1. What is CIL? What does the CLR do to the CIL?

Common Intermediate Language. The CLR takes responsibility for converting the CIL instructions into real machine instructions that the processor can understand and execute.