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Lesson Plan 10

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1. **Declare an enum for military ranks either officer or enlisted. Name it Rank. What are the symbols like Private, PFC, Corporals, or 1st Lt, 2nd Lt, Capt?**

public enum Rank

{ Private, PFC, Corporal, FirstLt, SecondLt, CPT }

1. **Using the Ranks enum, assign a rank to yourself or a freind.**

Rank Chetana = Rank.Corporal

Rank Friend = Rank.PFC

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

Private = 0

PFC = 1

Corporal = 2

FirstLt = 3

SecondLt = 4

Cpt = 5

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

When an enum is declared the enum literals are given values of type int. However, we can choose to base the enum on a different underlying integer type. For example, to declare that the underlying type of Rank is a long rather than int we can write the following code:

Enum Rank : long { Private, PFC,………}

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

Structs are stored on stack. Enums are value types and are stored on the stack.

1. **Declare a struct named DOD with four branches.**

Struct DOD { Army, Navy, Airforce, Coastguard;}

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

This is because the compiler always generates a default constructor for struct.

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

CIL, Common Intermediate Language, is an object-oriented assembly language, and is entirely stack-based. Its bytecode is translated into native code executed by a virtual machine.

CLR, Common Language Runtime is the virtual machine component of Microsoft's .NET framework. It manages the execution of .NET programs. The process works as just-in-time compilation that converts compiled code into machine instructions which the computer's CPU then executes.