Classes

When people think of object-oriented programming, they typically imagine defining and instantiating classes. Of course, the `Class` type is but one of many types in the .NET framework, but it is the most common user-constructed type.

Classes are reference types, and it is a common mistake to create a class when value semantics are desired. If the class represents an immutable atomic value, consider a struct instead. Of course, there are also allocation considerations when creating any object. Reference types must have memory allocated when an instance is created, whereas value types (such as structs) are allocated memory as soon as they are created.