

Structs

What is Struct?

- Structs share most of the same syntax as classes
- More limited than classes
- Fields cannot be initialized
- Cannot declare a default constructor
- Structs are value types and classes are reference types.
- Can be instantiated without using a new operator

Definition and usage

```
1 namespace test
2 {
3     struct Bar
4     {
5         int a;
6         public int A { get => a; set => a = value; }
7     }
8     class Program
9     {
10        static void Main(string[] args)
11        {
12            Bar myBar = new Bar();
13            myBar.A = 123;
14        }
15    }
16 }
```

2 references

1 reference

0 references

0 references

instantiated without using a new operator

```
struct Bar
{
    1 reference
    public void Hello()
    {
        Console.WriteLine("Hello");
    }
}
0 references
class Program
{
    0 references
    static void Main(string[] args)
    {
        Bar myBar;
        myBar.Hello();
    }
}
```

Struct copy

```
struct Bar
{
    int a;
    4 references
    public int A { get => a; set => a = value; }
}
0 references
class Program
{
    0 references
    static void Main(string[] args)
    {
        Bar myBar = new Bar();
        myBar.A = 123;
        Bar myCopy = myBar;
        myCopy.A = 456;
        Console.WriteLine(myBar.A); // 123
        Console.WriteLine(myCopy.A); // 456
    }
}
```


