

Wait, Those Aren't Classes?

Week 6

```
C:\Users\brend\source\repos\VGATestProject\x64\Release\VGATestProject.exe (process 70484) exited with code 0.  
Press any key to close this window . . .
```



Class-Lite

Structs originated before OOP as a way to organize data.

Essentially you create new variable types.

In C, these couldn't hold methods

In C++, you can give structs methods, but use a class at that point

Public by Default

Put it in the Header “Node.h”

```
// You could put this in the header of a relevant class instead
#pragma once

struct Node {
    Node left, right;
};
```

Going Anon

```
// You can leave a struct unnamed if you only use it a few times
struct {
    uint8_t r, g, b;
} color1, color2;
```

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Using A Struct

```
#include "Node.h"
```

```
Node root = { leftNode, rightNode };
```

```
root.left;
```

```
root.right;
```

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And a 1, a 2, a 1 2 3 4

Creates a type that can be a discrete list of values

Used to avoid invalid inputs and improve code legibility

Under the hood—they're just integers

(unless you're using Java, then they're another type of class)

Put it in the Header

```
// This may go in the header of a class that uses it as well
enum Status {
    OPERATIONAL, // 0 by default
    DETERIORATING, // 1 by default
    BROKEN // 2 by default
};
```

Set the Numbers

```
enum Status {  
    OPERATIONAL = 9,  
    DETERIORATING = 81,  
    BROKEN = 72  
};
```

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Using An Enum

```
#include "HeaderWithEnum.h"

enum Status iceCreamMachine = BROKEN;

int x = iceCreamMachine;

std::cout << x;

// Prints 72
```

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 Microsoft Visual Studio Debug



Assignment

Create a Pixel Struct

Optional: Create an enum for various text styles

I will walk you through this process in class!