

# The ++ In The Room

Week 5

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# Classes



# Object Oriented Programming

A CLASS is a schema for data and list of associated methods

An OBJECT is an instance of a class, with specific data

An INTERFACE is a set of specifications a class must contain

The goal of classes is ABSTRACTION

- Minimize code reuse and increase readability



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# Two Files per Class

Class.h   <-  Interface

Class.cpp   <-  Implementation

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# Header File “MyClass.h”

```
#pragma once
```

```
// Defines the Interface for your Class
```

```
class MyClass {
```

```
private:
```

```
    int number;
```

```
public:
```

```
    MyClass(int num);
```

```
    ~MyClass();
```

```
    int multiplyBy(int a);
```

```
}
```

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# C++ File “MyClass.cpp”

```
#include “MyClass.h”
```

```
// The actual code for your Class
```

```
MyClass(int num) {
```

```
    number = num;
```

```
}
```

```
~MyClass() {}
```

```
int multiplyBy(int a) {
```

```
    number *= a;
```

```
    return number;
```

```
}
```

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# Using A Class

```
#include "MyClass.h"
```

```
MyClass object(5);
```

```
std::cout << object.multiplyBy(10); // Prints 50
```

```
std::cout << object.multiplyBy(10); // Prints 500
```

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# Assignment





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# Create a Class to “Render” Your Video Buffer

Optional: Create a class to abstract your video buffer as well

I will walk you through this process in class!

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