CS1428
Foundation of Computer Science

Lecture 2.1: Using Other People's Code

Can I use other people’s code?

- **Short Answer:** yes, with a but...
- **Long Answer:** using code from other coders is very normal and important but you need to be careful to avoid theft and plagiarism. Always attribute the work to the original author and don’t copy the majority of your code from a single source. It is better to take one or two lines, give credit to the original author, and write most of your code yourself.
- **Giving credit is the difference between borrowing and stealing.**

Using One Line of Code:

- I have copied one line of code from an internet source, modified it to fit my problem, and included the URL of the original source.

```
int main (){
    //Print only the class name
    string s = "Welcome to CS1428";
    //Using solution from: https://stackoverflow.com/questions/14265581/
    //parse-split-a-string-in-c-using-string-delimiter-standard-c
    cout << s.substr(s.find('C'), s.length());
    return 0;
}
```

Adapting a Block of Code:

- I have copied an example from our textbook, modified it to fit my problem, and attributed the original source.

```
//Hello world example.
//Original Source: The C++ Workshop Chapter 1
//Adapted by Gentry Atkinson

#include <iostream>
using namespace std;

int main(){
    cout <<"Hello C++!";
    return 0;

}
```

Working with Another Author:

- I have worked along with another author, listed them as an author of the work, and identified code that was written mostly by them.

```
//Gentry Atkinson
//Co-author: Jimmy Student
//24 August 2021

#include <iostream>
using namespace std;

int main(){
    int celsius = 37;
    //Equation from Jimmy
    a = 1.8 * a + 32;
    cout << "Farenheit: " << a << endl;
    return 0;
}
```

Plagiarism:

- I have copied an example from the textbook, changed it in ways that do not affect the function of the code, and put my name on it. This implies to readers that I am the original author when I am not.

```
//Gentry Atkinson
//24 August 2021
#include <iostream>
#include <string>

int main()

{
    // Data type keywords.
    int myInt = 1;
    double myDouble = 1.5;
    char myChar = 'c';
    bool myBool = true;

    // Program flow keywords.
    if (myBool){
        std::cout << "true";
    }
    else{
        std::cout << "false";
    }
   return 0;
}
```

Stealing Code:

- I have copied several lines of code from techcrashcourse.com and included them in my program without giving credit to the original source. Code is protected by copyright.

```
//Gentry Atkinson
//24 August 2021
#include <iostream>

int main()

{
    float fahren, celsius;
    cout << "Enter the temperature in fahrenheit\n";
    cin >> fahren;
    // convert fahreneheit to celsius
    // Subtract 32, then multiply it by 5, then divide by 9
    celsius = 5 * (fahren - 32) / 9
    cout << "Celsius: " << endl;
    return 0;
}
```

Not Fooling Anybody:

```cpp
//Gentry Atkinson
//24 August 2021
#include <iostream>

int main()

{
    float fahren, celsius;
    cout << "Enter the temperature in fahrenheit\n";
    cin >> fahren;
    // convert fahreneheit to celsius
    // Subtract 32, then multiply it by 5, then divide by 9
    celsius = 5 * (fahren - 32) / 9
    cout << "Celsius: " << endl;
    return 0;
}
```

```cpp
//Gentry Atkinson
//24 August 2021
#include <iostream>
using namespace std;

int main(){
    float f;
    float c;
    cout << "Enter a temperature in Fahrenheit" << endl;
    cin >> f;
    // convert temperatures
    // Subtract 32, then multiply it by 5
    //then divide by 9
    c = 5 * (f - 32) / 9;
    cout << "Celsius is " << c << endl;
    return 0;
}
```

Any coder will recognize these as being the same code.
This is still plagiarism

Avoid Using Too Much Too Early:

- The point of this class is to encounter problems and find solutions for them.
- Borrowing too much code from other coders may interfere with you finding a solution of your own.
- Try coding your own solution before using someone else’s.

Consequences of Plagiarism:

- Students who plagiarize another student will earn a 0 on that assignment **and** for the assignment of the original author.
- Students may have to defend their actions in front of a university honor council.
- Copying code degrades the reputation of a coder **and** of our university.
- When in doubt, give credit to an original author.