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// Cherno Copy Constructor Example

#include <iostream>
#include <string>
#include <cstring>

class String
{
private:
    char* m_Buffer;
    unsigned int m_Size;
public:
    // Const char pointer called string
    String (const char* string)
    {
        m_Size = strlen(string);
        // the size of the string + null terminating character
        m_Buffer = new char[m_Size + 1];
        memcpy(m_Buffer, string, m_Size);
    }

    // Copy Constructor
    String(const String& rhs)
        :m_Size{rhs.m_Size}
    {
        std::cout << "Copied String!" << std::endl;
        m_Buffer = new char[m_Size + 1];
        memcpy(m_Buffer, rhs.m_Buffer, m_Size + 1);
    }

    friend std::ostream & operator<<(std::ostream& stream, const String& string);

    ~String()
    {
        delete[] m_Buffer;
    }
};

// Left Shift Operator overload
std::ostream & operator<<(std::ostream& stream, const String& string)
{
    stream << string.m_Buffer;
    return stream;
}

void PrintString(const String& string)
{
    std::cout << string << std::endl;
}

int main()
{
    // one copy of string is made and put into second (DEEP COPY)
    String string = "Cherno";
    String second = string;

    //std::cout << string << std::endl;
    //std::cout << second << std::endl;
```

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    PrintString(string);  
    PrintString(second);  
}
```