

Name:

UID:

CS1410-40 Programming Assignment 1

1. Visit compiler explorer: <https://godbolt.org/> and compile the following hello-world c++ program:

```
#include <iostream>
```

```
int main() {  
    std::cout << "Hello World!" << std::endl;  
    return 0;  
}
```

Report the number of lines of machine code (assembly) using the compiler “x86-64 gcc 10.2”. Knowing the complexity of machine code is typically a good indicator for measuring the performance of your program.

Lines of Assembly: _____

Compiler explore is frequently used by developers to inspect the assembly of your C++ code under different compilers (e.g., clang, gcc, icc).

2. Following Question #1, replace “std::endl” with “\n”. Do you see any difference in terms of assembly complexity? What is the difference between using “std::endl” and “\n”?

3. Watch the video “*Naming is Hard: Let’s do better*” presented by Kate Gregory at <https://www.youtube.com/watch?v=MBRoCdtZOYg> and write your comments in 2-3 sentences:

4. Watch the video “*C++20: C++ at 40*” presented by Bjarne Stroustrup (creator of C++) at https://www.youtube.com/watch?v=u_ij0YNkFUs and write your comments in 2-3 sentences:

Due 9/2/20 by Class - email your solution to your section TA (Dian-Lun.Lin@utah.edu or yasin.zamani@gmail.com)