Assignment 2

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Execution of Sample.c to a.out -

When we compile Sample.c using gcc compiler there are following steps -

1. Preprocessor program takes the Sample.c code and performs certain actions on it, such as expanding macros, removing comments, and including header files.
   Sample.c → Sample.i

2. Compiling the preprocessed code into assembly code. The compiler program translates the Sample.i into machine-readable assembly code.
   Sample.i → Sample.s

3. The assembly process takes the generated assembly code (Sample.s) and converts it into object code, which is a low-level code that can be directly executed by the machine.
   Sample.s → Sample.o

4. The linker program combines the object code with required libraries and generates an executable file.
   Sample.o →a.out

   a.out file for execution/run.