

Assignment 2

the processing of forming an executable binary file from a c source file involves following steps :

- 1) preprocessor (code.c to code.i)
- 2) Assembly code (code.i to code.s)
- 3) Object code (code.s to code.o)
- 4) linker (code.o to a.out)

Compile : After creating or editing source code we need to compile it by using compiler. If compiler does not detect any errors in the program, then it produces object files. Object file has extension .o.

Link : Object files are not executable file so in order to make executable file we use linker. If no errors occur, linker produces executable file having extension .EXE

Execute : After obtaining executable file we can run this just like other applications. We need to test to determine whether it works properly or not.

Compiler: The preprocessed source code moves to the compiler, and an assembly-level code is generated by the compiler after the compilation of the whole C source code program.

Assembler: This part after taking the assembly-level code from the compiler. This object code is quite similar to the machine code or the set of binary digits. After this assembler part, The Linker continues the process, producing an executable.exe file at the end.

Linker: Before getting started with this, we should know that the library functions are a part of the C software but not of any C program. Hence, the compiler has no idea about the working of the function.

Loader: Whenever the command is given for the execution of a particular program, The loader plays an important role. With the help of the loader, the .exe file is loaded in the RAM and the CPU is informed of the starting point of the address of the program where it is loaded.