## Compiler

## Compilation system:

- hello.c (source program, text)
- hello.i (modified source program, text) preprocessor (cpp)
  - modifies according to # directives (#include<stdio.h>)
- hello.s (assembly program, text) compiler (cc1)
  - assembly
  - language program (statement equals 1 low level machine language instruction)
  - assembly language common compiler output for different high level languages
- hello.o (relocatable object programs, binary) assembler (as)
  - to binary file (relocatable object program) whose bytes encode machine language instructions
- hello (executable object program, binary) linker (ld) (linked with printf.o)
  - linker merges standard c library functions (executable object file)

## sources:

• Computer Systems: A Programmers Perspective pg 4-7