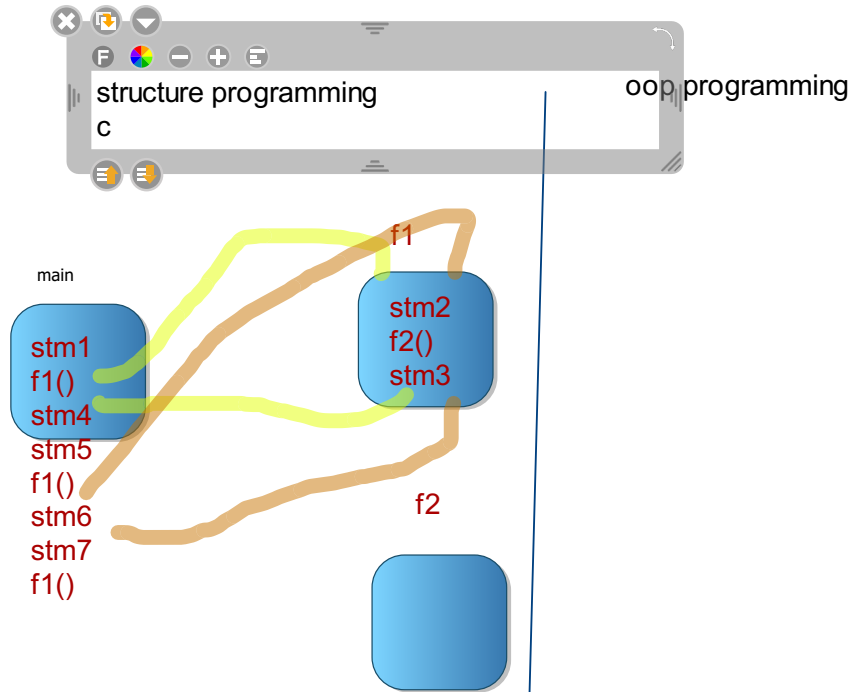# C Programming Language

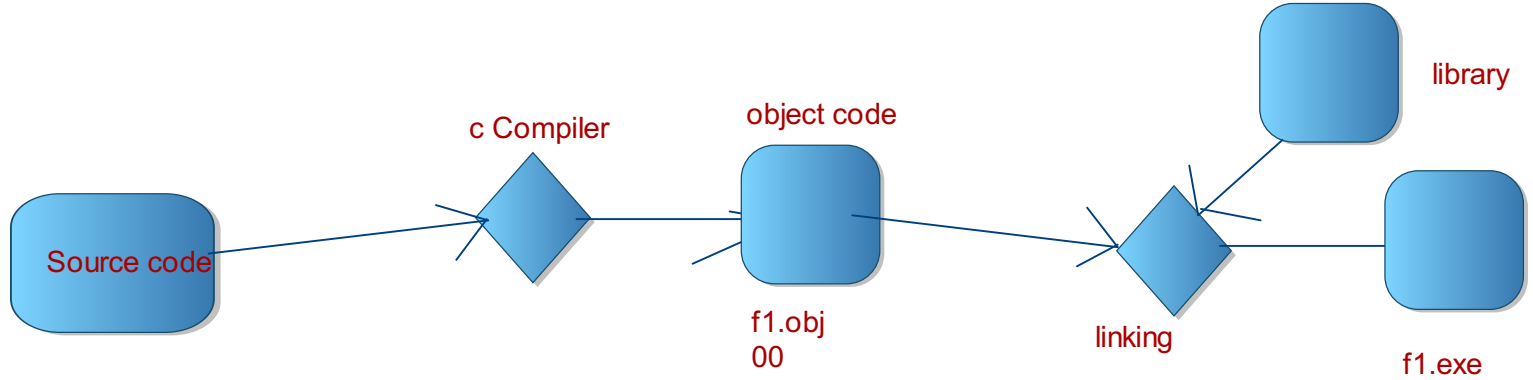program
steps + data
0 , 1 (binary system)
00,01,10,11->
000,001,....111
byte (8 bit) (0-> 2^b -1) 0-> 2^8 -1 : 0->255
1byte : 8 bit : 0-:2^7 -1
                    -1 : -2^7
2byte: -2^{15} : 2^{15} -1
4byte : 32 bit -> bit sign 31 -2^{31} : $2^{31}-1$

floating data:24.3656 => $m*10^n$

a:000011 (97)
b
A
string "ajfjh"
acii code

0,1,2...9 (decimal system) 0->(10^n -1)
10,11,..19...98,99
0-> 999
0->9999
4 digt 0-> 9999
-
mc
00001010101100

mc
00000000001111
----
assembly language
move m1,r1
move m2,r2
add r1,r2,
add r1,r2,
=> assembler=>0000011111

----
x=y*r+3*5/2
high level language (c# , java , c++ , c)

linear programming

stm1
stm2
stm3
stm4
stm5
stm2
stm3
stm6
stm7
stm2
stm3

structure programming
c

oop programming

main

stm1
f1()
stm4
stm5
f1()
stm6
stm7
f1()

f1

stm2
f2()
stm3

f2

c Compiler

object code

library

Source code

f1.obj
00

linking

f1.exe

f1.c

IDE
GCC
CODEBLOCK 16
1972
1989 : ANSI C
C99
C11
C17

Variable
named location in memory, value :address, name, size(datatype)