# C #7

## Primitive Data Types

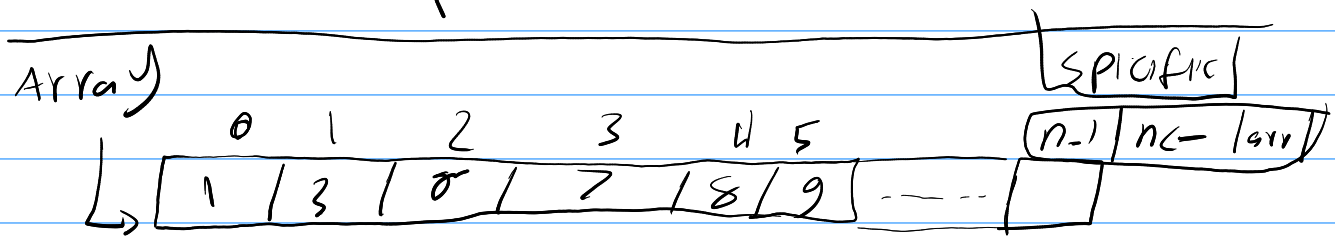
Integers → int → {16 Bit - 32 Bit}
- → short int → 16 Bit
- → long int → 32 Bit
- → long long → 64 Bit
- → (unsigned ___) >= 0

Floating-Point → float → 32 Bit
- → double → 64 Bit
- → long double → 80 Bit

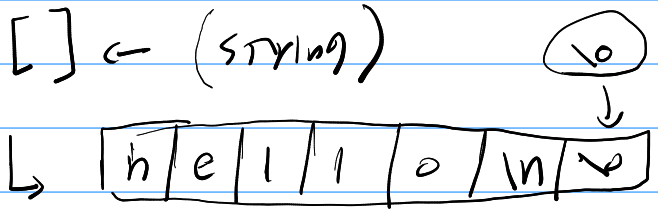
Char → 1 Byte → (int) → 'a'
- → unsigned, (char) → [signed / unsigned] → machine dependent

~~Bool~~, ~~String~~

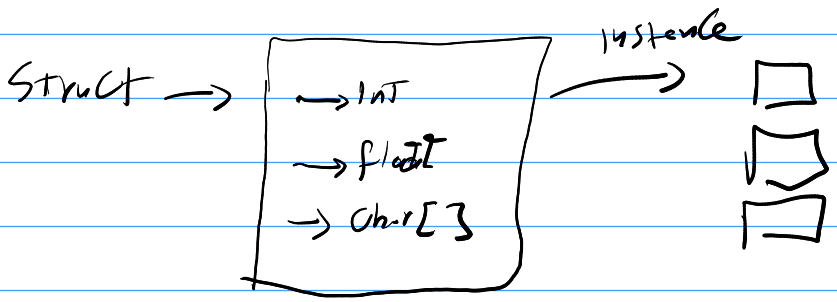
Array




Char [] ← (string)



STRUCT

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Constant

integer → (15 - 16 - 17) → int
↳ (15L - 16L - 17L) → long int
↳ (15LL - 16LL - 17LL) → long long
↳ 012 - 0xff

int a = 15 ; ax 1000—0011

float → 15.6f - 1.56E1 = 1.56×10¹

char → 'a' , 47

char[] ← "abcd"

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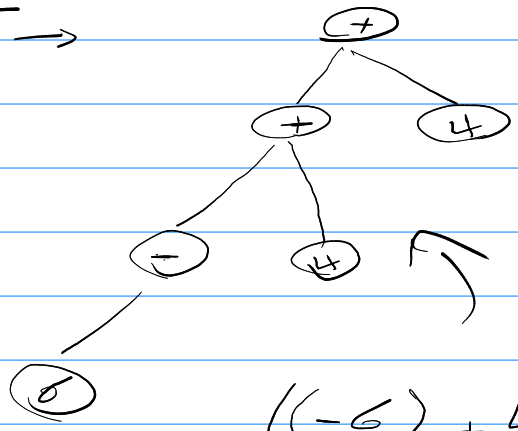
syntax Tree

AST →




dfs(Left first / right first)

↳ precedence

((-6) + 4) + 4

Bool -> (int) -> true -> !0
L, false -> 0

11, 88, ! > integers

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Control

{ statment 1;
statment 2;
statment 3;
} ≡ statment; with if/else and loops

if (expression)
statment; ≡
else
statment;

if (expression)
{
statment 1;
statment 2;
}
else
{
statment 1;
statment 2;
}

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#define - #if -> #endif - #include <sys file>
#ifdef "file-path"
#ifndef