

History of C language Tokens

Day-2

By
Saurabh Shukla
(MySirG)

- BCPL - Basic Combined Programming Language
1966 - Martin Richards
- B - 1969 - Ken Thompson
- C - 1972 - Dennis Ritchie
- UNIX
- AT & T's Bell Labs, USA



Version History

- K & R - 1978 $x = -5 \rightarrow x = 5$ $x = 5$
- ANSI C - 1983
- C89 - 1989 $x = -5$
- C90 - 1990
- C95 - 1995
- C99 - 1999 Single line comment, variable length arrays
- C11 - 2011 ~~gets()~~ fgets()
- C17 - 2018 Only bug fixes

Begin C

A to Z
a to Z
0 to 9
{ [; :
? ! ~
. : +
> < +
/ \ ()

Tokens

Constants
variables
Keywords
operator
functions

=
=
=

Instruction

- ① Declaration statements
- ② Action statements

Syntax

=====

Program

Constants

Data = Information = constant

Primary
constants

Secondary
constants

Integer 25, -5, 42, -237 3 arrays

Real 3.7 3.0 -0.02 strings "Bhopal"

character 'a' 'A' '+' ' ' pointer

'5' '3' x '35' x structure

'-3' x union

'4.2' x enumerator

variables

MU

CU

ALU

Processor

RAM

Program's memory

a [3]

b [4]

c [7]

=

a, b, c are variables

Variable naming Rules

- Variable name is any combination of alphabet, digit and underscore
- No other symbol is allowed
- valid variable name cannot start with a digit

a

a\$

a25

A.b

a_2_b_3

x-1

x2

2x

_x

A

Predefined words
Reserved words

Keywords

auto double int struct
break else long switch
case enum register typedef
char extern return union
const float short unsigned
continue for signed void
default goto sizeof volatile
do if static while

-Bool -Alignas
-Complex -Alignof
-Imaginary -Atomic
inline
restrict

-Generic
-Noreturn
-Static_assert
-Thread_local

C89
32 Keywords

C99
+5

C11
+7