

IL LINGUAGGIO C

- 1972 : Bell labs

UNIX } Thompson + Ritchie
B

- C

- Kernighan & Ritchie: « The C programming language » (1978)

K&R

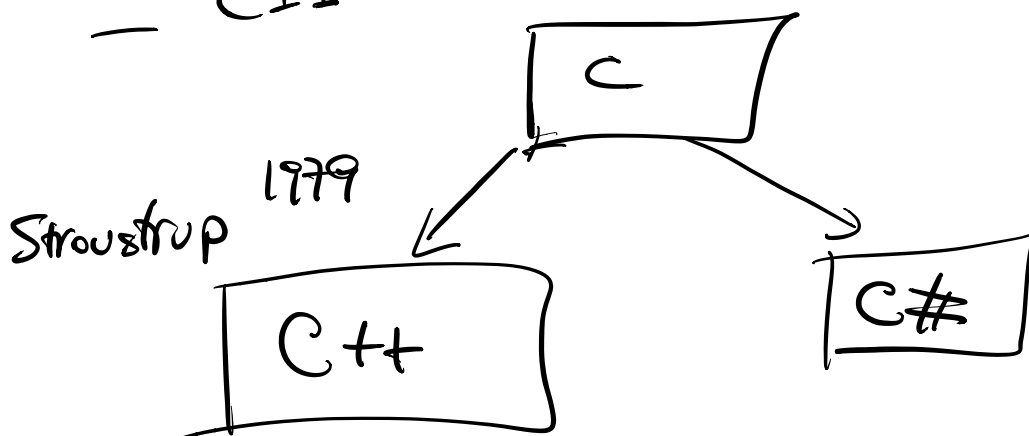
- ANSI C = C89

- C17

- C99

- C20

- C11



COMPILATORE C

- gcc (GNU)

hello.c

```
#include <stdio.h>
```

```
void main () {
```

```
int n, i;
```

```
printf("Quante volte? ");
```

```
scanf("%d", &n);
```

```
for (i=0; i<n; i++)  
    printf("Ciao\n");
```

```
}
```

TERMINATORE DI $\left\{ \begin{array}{l} \text{istruzioni} \\ \text{dichiarazioni} \end{array} \right.$ else.

STRUTTURE DI CONTROLLO

if

if (cond)

INTERI = Bool
0 → false
≠ 0 → true

RAMO-V

else

RAMO-F

opz.

if (x > y)
printf("Maggiore! \n");

else {
printf("Minore o uguale");
d = x + y;

}

if ($x > y$)

...

else if ($x + 1 < y$)

...

else if ($x * x < t$)

...

else

...

switch

switch (selettore) {

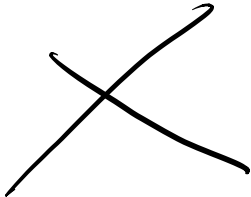
espressione di
tipo scalare

case espr. costante :
 CASO
 break ;
case espr. cost. :
 CASO
 break ;

default

}

CICLI

Go	C
<u>for</u> {A}; {B}; {C} <u>corpo</u>	<u>for</u> ({A}; {B}; {C}) <u>corpo</u>
<u>for</u> {A} <u>corpo</u>	<u>while</u> ({A}) <u>corpo</u>
	<u>do</u> <u>corpo</u> <u>while</u> ({A})
<u>for</u> <u>corpo</u>	<u>while</u> (1) <u>corpo</u>
	<u>for</u> (i;) <u>corpo</u>

TIP! DI BASE

-IMPLEMENTATION-DEPENDENT

int

long
(long int)
unsigned long

short
(short int)
unsigned short

unsigned int
(unsigned)

float

double

char

← ASCII

No complex
No bool

NO string

char x;
x = 'A';