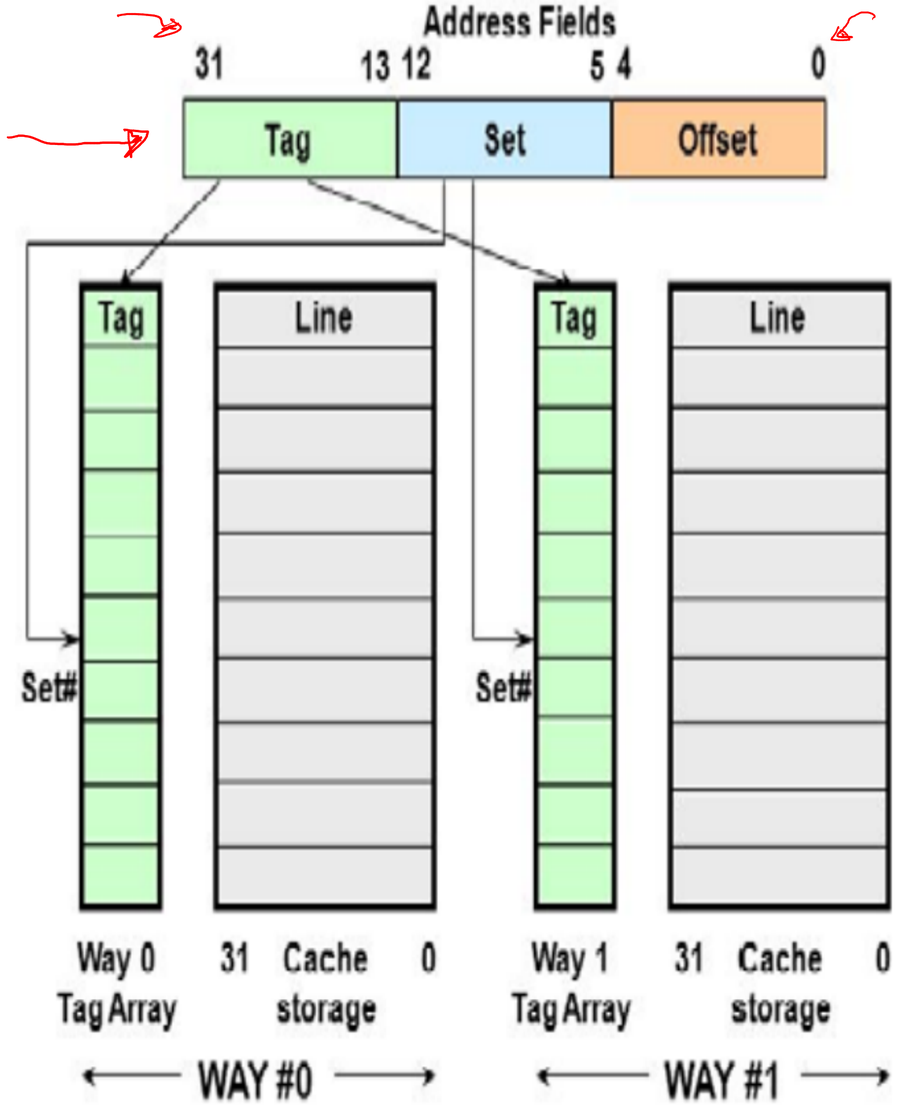


Example:

Line Size:	32 bytes
Cache Size	16KB
# of lines	512 lines
#sets	256
Offset bits	5 bits
Set bits	8 bits
Tag bits	19 bits

Address 0x12345678

0001 0010 0011 0100

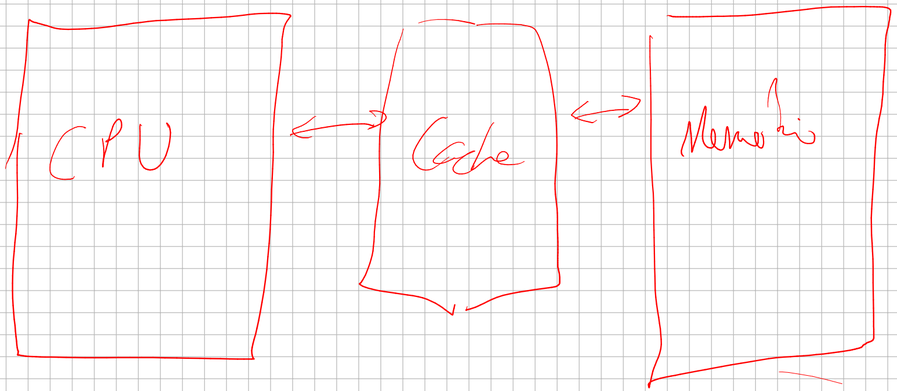
0101 0110 0111 1000

Offset: 1 1000 = 0x18 = 24

Set: 1011 0011 = 0x0B3 = 179

Tag: 000 1001 0001 1010 0010 =

0x091A2



8 . 1024 / 4 / 32

2 . 1024

deque<int> cache[4]

8 K

int cache[4][64]

8 . 1028 K

4 32

Cache
+read( )
+write( )

bool

data

+address

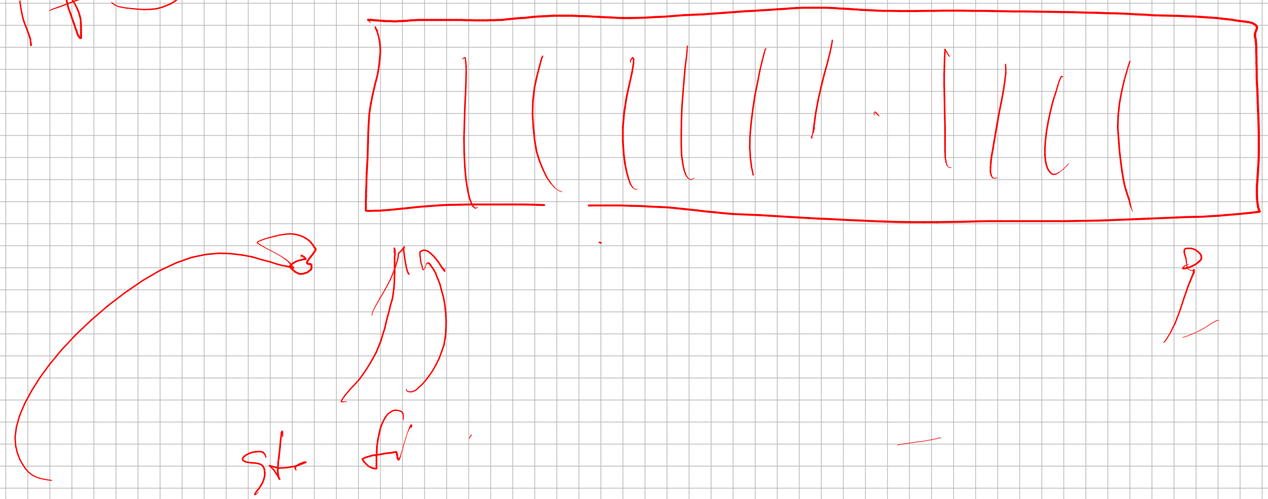
Program

Mem
+read()
+write()
+alate()
adm

char mem[128 x 1024] ← 128 K

FIFO

32



deque

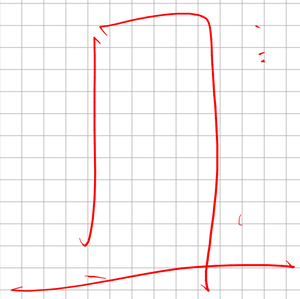
C

→ gcc

gtt

push( )

pop( )



ring buffer ← C

FIFO

Associativo

2 – 4 – Completa

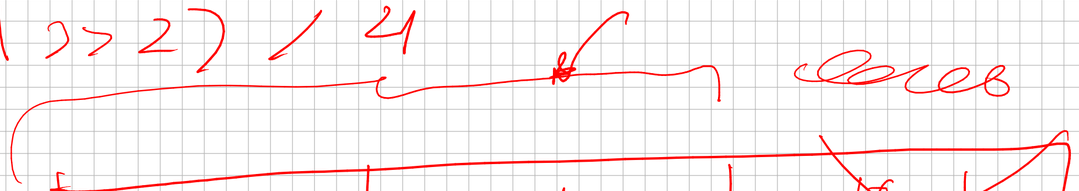
$$\begin{cases} N = (addr >> 2) \% 4 \\ tag = (addr >> 2) / 4 \end{cases}$$

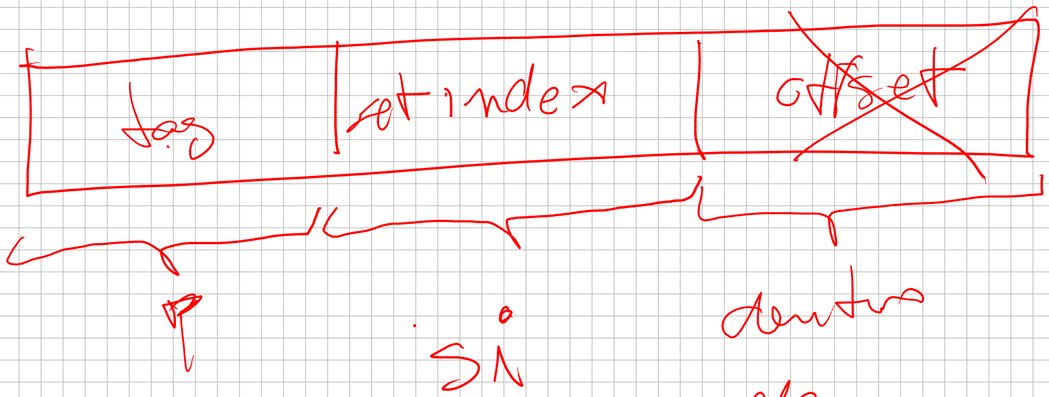
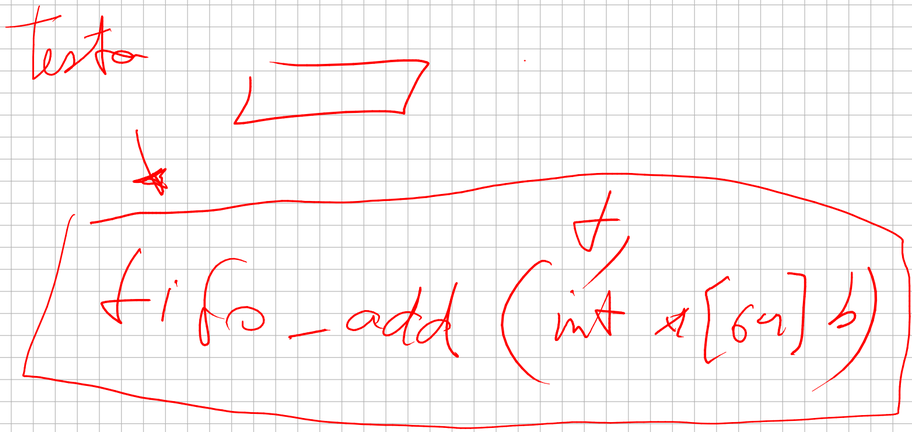
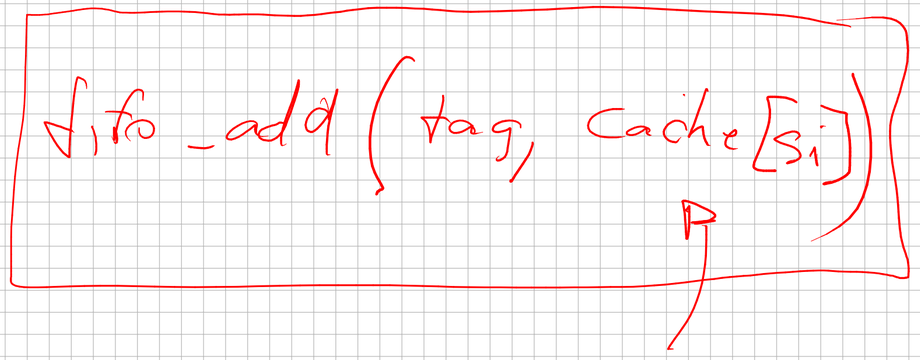
cerco

tag	set index	~~offset~~
	si	dentro do bloco

testo

fifo_add(int a[64] b)





fifo_add(tag, cache[si])