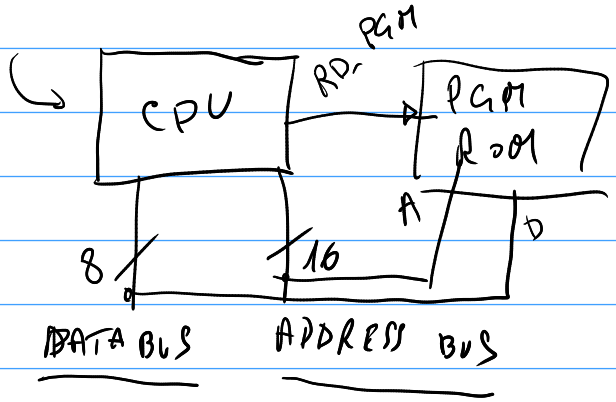
CISC PROCESSOR



MEMORIA
64KB
$2^{16} = 65536$

MEMORIA ORGANIZZATA IN BYTE
OPCODE DA 8 bit

REGISTRI 16 BIT

A = Accumulatore
X = Uso generale
Y = "
PC = Program counter

$A \leftarrow A$ op ~ ||

2 + 3
MOV A, #2 A ← 2
ADD #3 A ← A + 3

ADD X ; $A \leftarrow A + X$

1. RD_X = 1, WR_TEMP = 1
2. ALU_OP = 000, RD_ALU = 1, WR_A = 1, (RD_X = 0, WR_TEMP = 0)

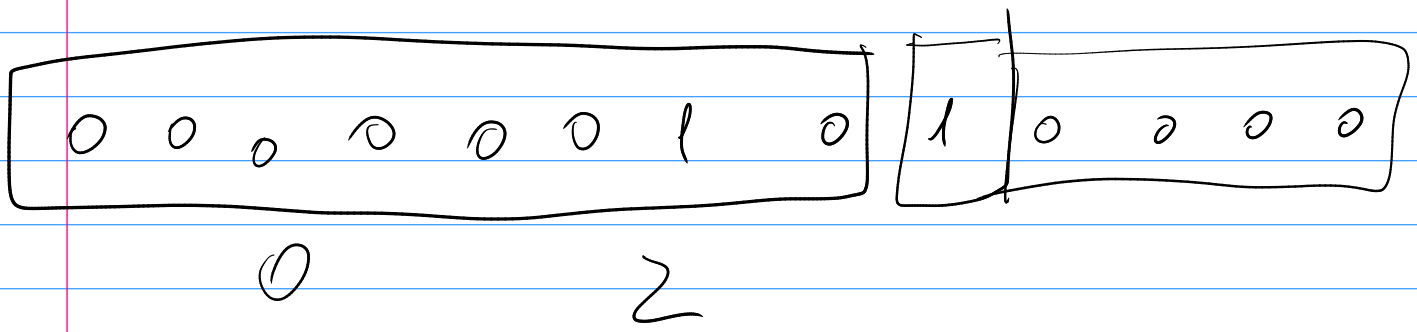
μP ADDRESS

0 = FETCH
1 = OP (EXECUTE)

A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0

OP-CODE ISTRUZIONE ASSEMBLY

CONTATORE DI FASE



0 2

OPCODES

OPCODE	
01	MOVB A, #imm8
02	MOV A, #imm16

MOVB A, #0x40 ⟶ [01 ; 40] ← PC

MOV A, #0x1234 ⟶ [02 ; 34 ; 12]

MOVB	A, #0x40	01	40
MOVB	X, #0x22	03	22
ADD	X	10	