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① Ch. 4 (CC-3)

$A = B + I$

DATA
TYPE

Memory

Addressability (16 bits)

Address Space

KBR

16 bits

2^{16} locations

CONIF(I)

ALU Temp Storage

R0
R1
R2
...
R7

FA

15 12 16
0001
ADD

I

O

~~MAIO~~

~~MDIO~~

0000000000000000

0101 1101 0001 1110
S D I E

x5D1E

CONTROL
IR

C

PC

PROGRAM COUNTER

IP

0101
111

A+B

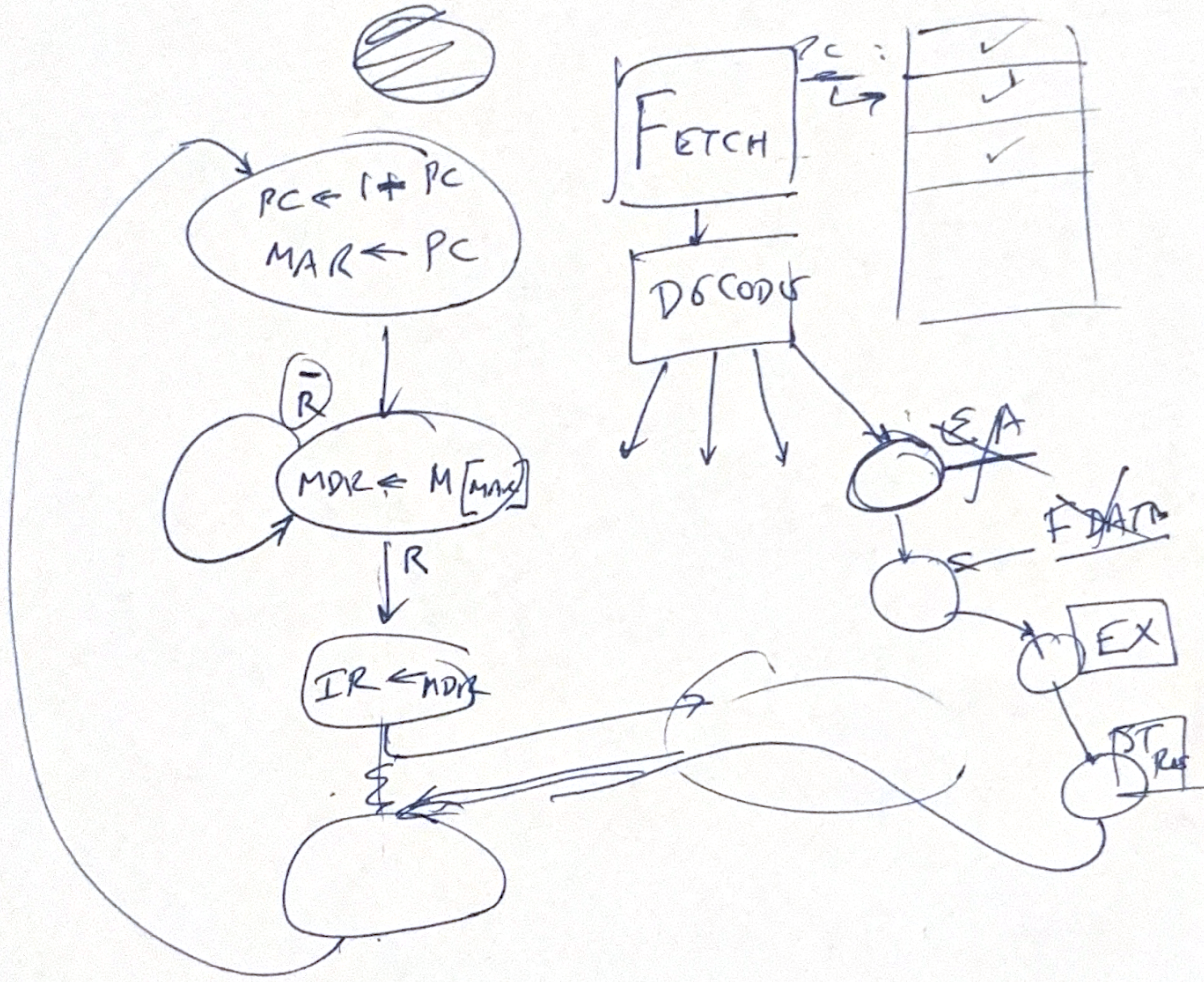
5+5+5+5

x0000

Mem Local
256

xFDFF
x FED0
x FFF

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②

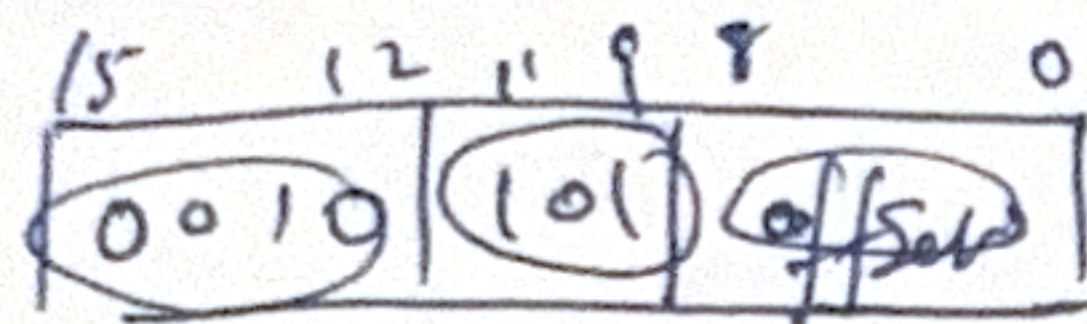
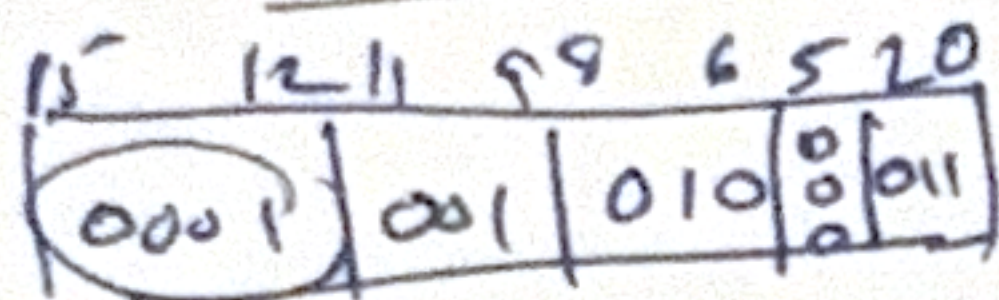


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③

ADD (R1), R2, R3

LD

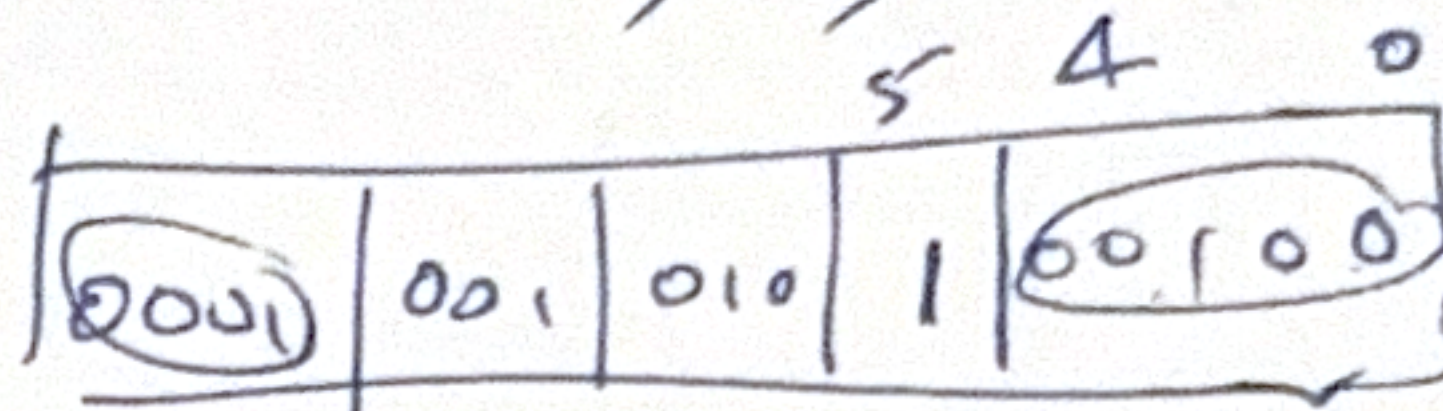


LD R5

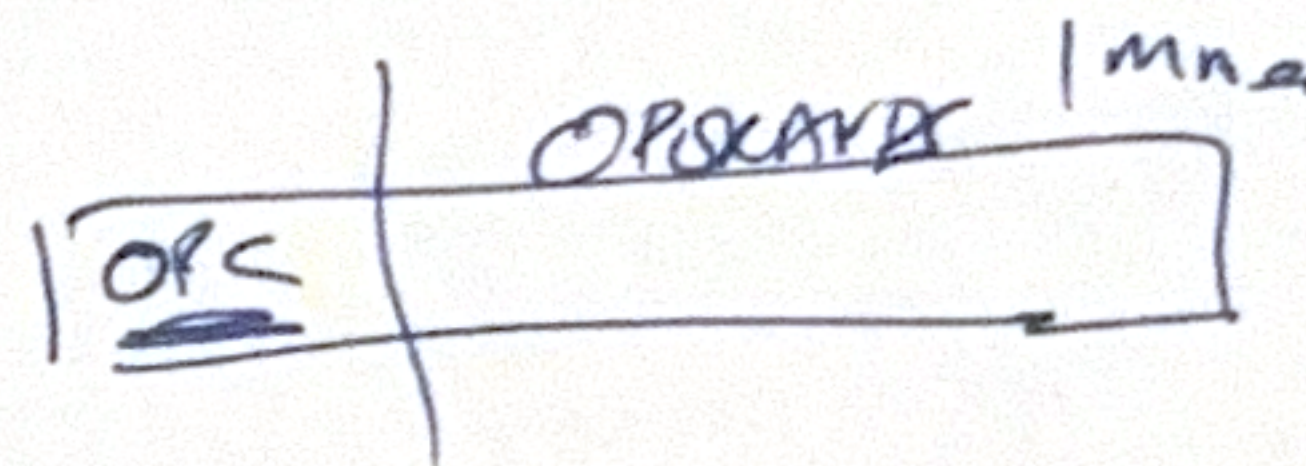
LOAD

STORE

ADD R1, R2, 4



$R1 \leftarrow R2 + 4$



$\leftarrow \text{SEXT}(\text{offset}) + PC'$

MAR

