$PC \rightarrow mem1\_A,\ alu1\_A$

$alu1.\ +1 \rightarrow alu1\_B$

$alu1\_out \rightarrow pc.$

$mem1\_D\ (11:9) \rightarrow RF\_A1$

$mem1\_DC\ (8:6) \rightarrow RF\_A2$

$RF\_D1 \longrightarrow alu2\_A$

$RF\_D2 \rightarrow alu2\_B$

$alu2\_out \rightarrow RF\_D3$

$mem1\_D(5:3) \rightarrow RF\_A3$

+1 → ALU1 → PC+1

PC → mem1_A / mem1

mem1 → (11:9) A1 D1 → ALU2
8:6 A2 D2 →
5:3 A3
→ D3

CCR → ALU2

Scanned with CamScanner

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1)

ADI

Pc -> memA, alu1_A
+1 -> alu1_B
alu1_out -> PC

mem1_D(11:9) -> RI_A1
RI <- mem1 RI_D) -> ALU2_A
mem1_D(5:0) -> se10
-> ALU2_B
ALU2_OUT -> RI_D3
mem1_D(8:6) -> RI_A3

+1

PC+1

PC

memA mem.D
mem1

1

11:9   A1
A2
8:6   A3
D3

CCR

ALU2

mem.D(5:0) -> se10
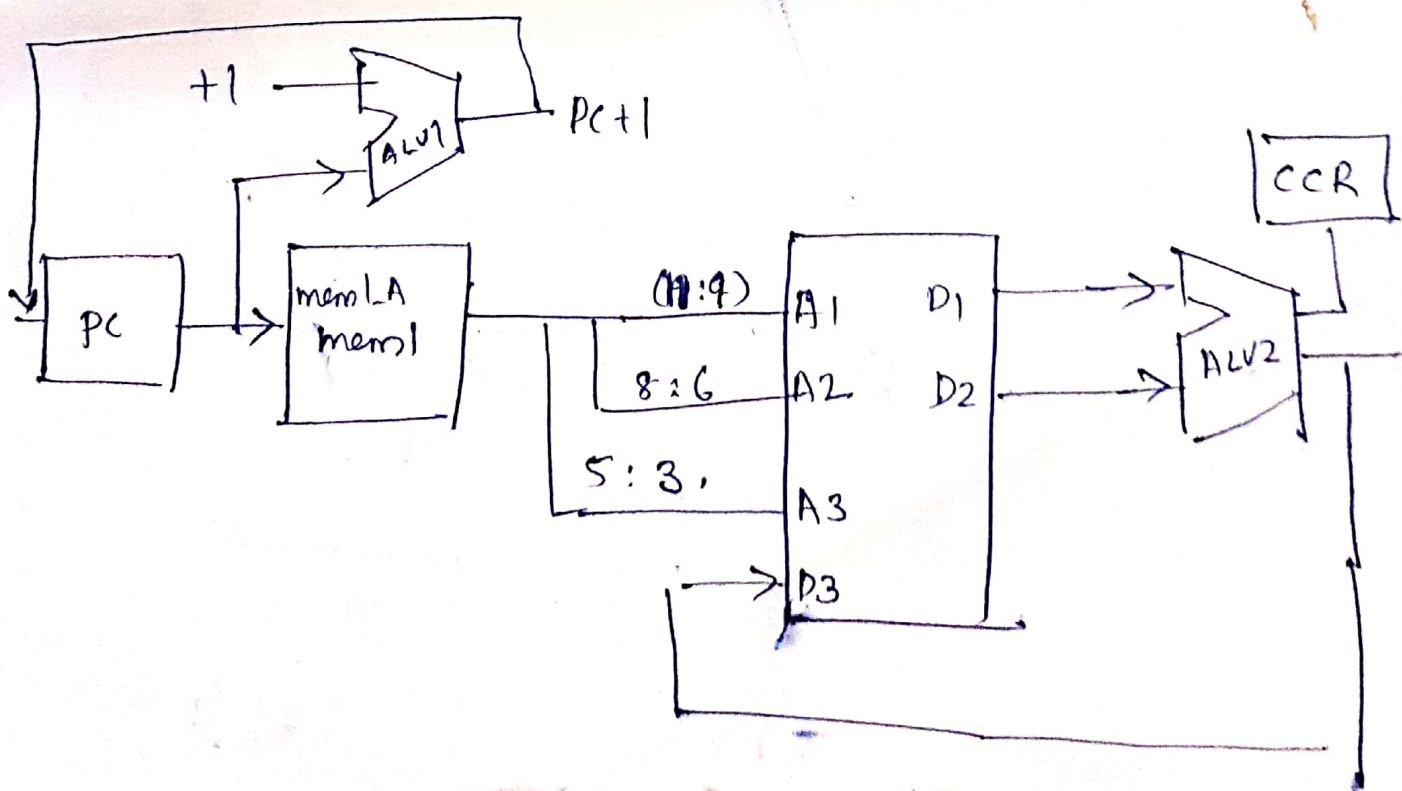
③ AD2

$PC \rightarrow mem1\_A , \ alu1\_A$

$\quad +1 \rightarrow alu1\_B$

$alu1\_out \rightarrow PC$

$mem1\_D(11:9) \rightarrow RF\_A1$

$mem1\_D(8:6) \rightarrow RF\_A2$

$RF\_D1 \rightarrow alu2\_A$

$RF\_D2 \rightarrow \ \cancel{alu2\_B}$

$a \qquad \qquad \hookrightarrow Sll1 \rightarrow alu2\_B$

$alu2\_out \rightarrow RF\_D3$

$mem1\_D(5:3) \rightarrow RF\_A3$

+1

PC

merol

11:9

8:6

5:3

R1

A2

D1

D2

R1-A3

D3.

g11

CLR

IF

ID + RR.

FORWARD

Ex

Mem

WB

Control Decoder

Controls

FORWARD

+1

ALU1

PC+1

RF-A1   D1

RF-A2   D2

IR(11:9)

IR(8:6)

D1

D2

PCR

C

2

ALUOUT

PC

Memory

IR

PC

RF-A3

IR(5:3)

D3

Wren

(IR(5:0)
Imm6

Slit

1

0

2

ALU1

ALU-SYCB.

Mem

(RF-D3)ALUOUT.

IR(5:0)

RF-D3.