



Data Path

CA # 2

810199392

محمد اسحاق پوزدار

810199595

فرهاد نیکو

# Controller

	opc	RegWrite	MemRead	MemWrite	Branch	ALUSrc	Jr Sel	Jump	MemReg	regDst	writerDst	ALVCP
add	000000	1	0	0	0	1	0	0	0	01	0	101
sub	000000	1	0	0	0	1	0	0	0	01	0	101
or	000000	1	0	0	0	0	0	0	0	01	0	101
and	000000	1	0	0	0	0	0	0	0	01	0	101
addi	000001	1	0	0	0	1	0	0	0	00	0	000
slt	000000	1	0	0	0	0	0	0	0	01	0	101
slti	000001	1	0	0	0	1	0	0	0	00	0	011
lw	000011	1	1	0	0	1	0	0	1	00	0	000
sw	000100	0	0	1	0	1	0	0	0	00	0	000
bef	000101	0	0	0	1	0	0	0	0	00	0	001
J	000110	0	0	0	0	0	0	1	0	00	0	000
Jr	000111	0	0	0	0	0	1	1	0	00	0	000
Jal	001000	0	0	0	0	0	0	1	0	10	1	000

: 1/2

addi R9, 1000(R0)

lw R15, 1000(R0)

add R1, R0, 80

Loop: beq R1, R0, End-Loop

lw R14, 1000(R1)

slt R10, R15, R14

beq R10, R0, Inst10

add R15, R14, R0

add R9, R1, R0

add R1, R1, -4

J Loop

End-Loop: sw R15, 2000(R0)

sw R9, 2004(R0)

