FINAL PROJECT REPORT

- INSTRUCTION INFORMATIONS

Instruction Opcode	Instruction Operation	AluOP	Function Field	Desired Alu Op	Alu Control	OPCODE
R type	Add	100	100000	Add	000	000000
R type	Sub	100	100001	Subtract	001	000000
Addi	Add immediate	000	X	Add	000	6H8
Lw	Load word	000	X	Add	000	6H23
Sw	Save word	000	X	Add	000	6H2b
Beq	Branch equal	001	X	Subtract	001	6H4
Bne	Branch not equal	001	X	Subtract	001	6H5
R type	Set less than	100	100101	Set less than	110	0
Slti	Set less than immediate	010	X	Set less than	110	6HA
J type	Jump	111	X	-	-	6H2
J type	Jump to register	111	X	-	-	TO DO
J type	Jump and link	111	X	-	-	6H3
R type	And	100	100011	And	100	0
R type	or	100	110000	Or	101	0
Andi	And immediate	011	X	And	100	6HC
Ori	Or immediate	101	X	Or	101	6HD
X type	Shift right logical	100	X	Shift	111	6H6
X type	Shift left logical	100	X	Shift	111	6H7
Li	Load Immediate	000	X	ADD	000	6hf

NOTE: Shift instruction is not R type since , It acts like I type . Since alu has no shifter internal unit in design even it can be possible.

- USED INSTRUCTION

10001100000001000000000000000000

10001100000010000000000000001000

10001100000011000000000000010000

10001100000100000000000000011000

10001100000101000000000000100000

10001100000110000000000000101000

00000000010010011100001000000000

00000000110100100000001000000000

00100001011001000000000010000000

00000001111000101000001000010000

00000000110011101100001001010000

00000000010010110000001000110000

00000100100101101010000110000000

00110010011110000000000001000000

00110101001111000000000001000000

00101000111011000000000000010000

10101100000001000000000000110000

10101100000010000000000000111000

10101100001001000000000001000000

10101100001010000000000001001000

10101100001011000000000001010000

10101100001100000000000001011000

00111100000001000000000110010000

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00011000000100001101000000000000

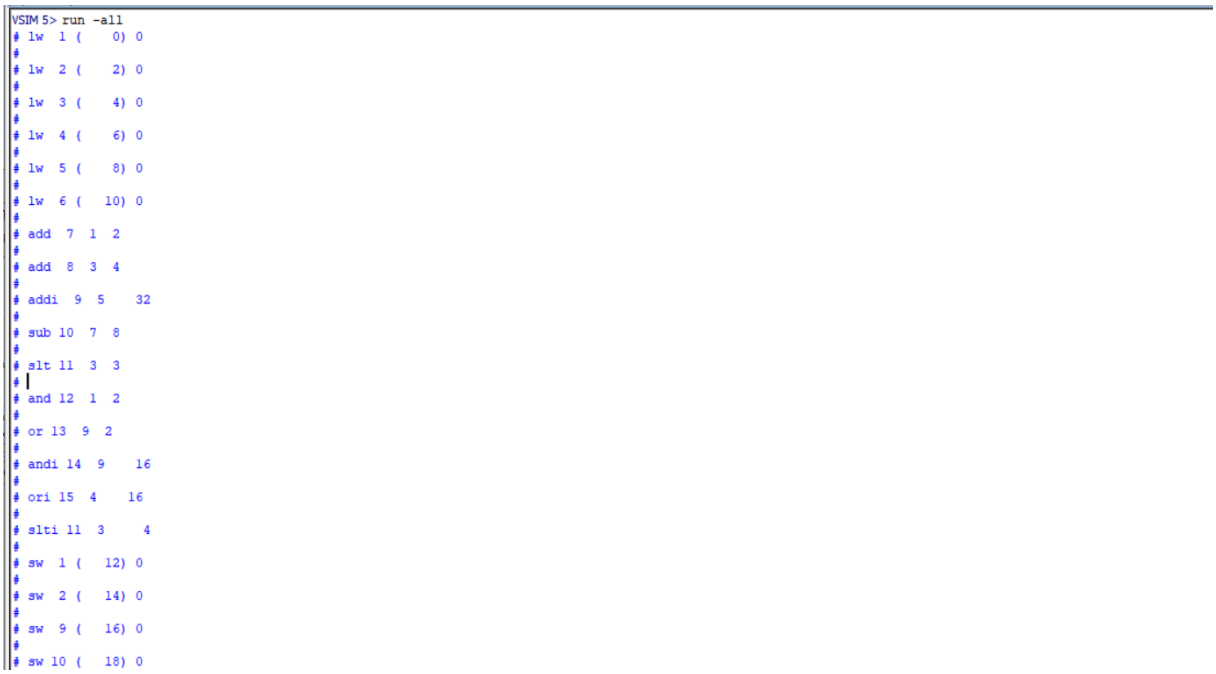
00011100000110010100110000000000

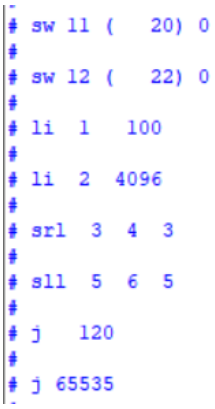
00001000000000001111000000000000

00010011010011111111111101010000

0001010101000111111

1111101010000





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