OPCODE	INSTRUCTION	DESCRIPTION
00000	SUB	Subtracts two registers and puts the value in a third register
00001	SUBI	Subtracts one register and an immediate value and puts the value in a third register
00010	ADD	Adds two registers and puts the value in a third register
00011	MUL	Multiply two registers values and puts the value in a third register
00100	DIV	Divides the two registers value and puts the value in a third register
00101	ADDI	Adds the value of one register and an immediate value and puts the value in a third register
00110	MULI	Multiply one register value and immediate value puts the value in a third register
00111	DIVI	Divides one register value and immediate value puts the value in a third register
01000	AND	Bit wise AND of two register values and places the out put in a third value
01001	OR	Bit wise OR of two register values and places the out put in a third value
01010	XOR	Bit wise XOR of two register values and places the out put in a third value
01011	ANDI	Bit wise and of a register value and immediate value ,places the out put in a third value

0 1 1 0 0	ORI	Bit wise OR of a register value and immediate value ,places the out put in a third value
0 1 1 0 1	XORI	Bit wise XOR of a register value and immediate value ,places the out put in a third value
0 1 1 1 0	INV	Inverts the value of a register and places the new value in a register
0 1 1 1 1	COMP	Compares between the values of two registers, and executes the next instruction if the result is 0 or skip it if else
1 0 0 0 0	SHL	Shifts the value of register to the left
1 0 0 0 1	SHR	Shifts the value of register to the right

10100	JREG	Jumps to a register
11000	READ	Reads the value of a memory address using a the value of a register
11001	WRT	Writes a value of a register into the memory
11010	READI	Reads from a memory address
11011	WRTI	Writes the value of a register to a memory location

CODE	NAME	DESC
00000	ZEROS	All zeros for bit wise operations
00001	ONES	All ones for bit wise operations
00010	PC	Program counter
00011	ZERO	Contains one zero
00100	ONE	Contains one
00101	REG0	General purpose register
00110	REG1	General purpose register
00111	REG2	General purpose register
01000	REG3	General purpose register
01001	REG4	General purpose register
01010	REG5	General purpose register
01011	REG6	General purpose register
01100	REG7	General purpose register
01101	REG8	General purpose register
01110	REG9	General purpose register
01111	REG10	General purpose register
10000	REG11	General purpose register
10001	REG12	General purpose register
10010	REG13	General purpose register
10011	REG14	General purpose register
10100	REG15	General purpose register
10101	REG16	General purpose register

10110	REG17	General purpose register
10111	REG18	General purpose register
11000	REG19	General purpose register
11001	ARG0	Register for arguments
11010	ARG1	Register for arguments
11011	ARG2	Register for arguments
11100	ARG3	Register for arguments
11101	RET0	Register for return values
11110	RET1	Register for return values
11111	RA	Register to store a return address