J type instruction set				
Bits range	31➔ 26	25 ➔21	20 ➔ 5 (OTHERS <= 'X')	4 ➔0
Name	Operand code (OP)	Destination Register	_____	Function (F)

J type OP(00 0000)

1. NOP F(0 0000)
2. JZ F(0 0001)
3. JN F(0 0010)
4. JC F(0 0011)
5. JMP F(0 0100)
6. CALL F(0 0101)
7. RET F(0 0110)

R type instruction set						
Bits range	31➔ 26	25 ➔21	20 ➔16	15 ➔ 11	10 ➔ 5 (OTHERS <= 'X')	4 ➔0
Name	Operand code (OP)	Destination/ source2 Register	Source1 register	Shift amount	_____	Function (F)

R type OP(10 0000)

(Discarding reading 2)

1. NOT F(1 0000)
2. INC F(1 0001)
3. DEC F(1 0010)

4. MOV F(0 1000)
5. ADD F(0 1001)
6. SUB F(0 1010)
7. AND F(0 1011)
8. OR F(0 1100)
9. SHL F(0 1101)
10. SHR F(0 1110)

N type instruction set			
Bits range	31➔ 26	25 ➔ 5 (OTHERS <= 'X')	4 ➔0
Name	Operand code (OP)	_____	Function (F)

N type OP(01 0000)

1. SETC F(0 0000)
2. CLRC F(0 0001)
3. RST F(0 0010)

S type instruction set				
Bits range	31➔ 26	25 ➔21	20 ➔ 5 (OTHERS <= 'X')	4 ➔0
Name	Operand code (OP)	Destination/ source2 Register	_____	Function (F)

S type OP(00 1111)

1- PUSH F(0 0000)
2- POP F(0 0001)

I type instruction set				
Bits range	31➔ 26	25 ➔21	20 ➔16	15 ➔ 0
Name	Operand code (OP)	Destination/ source2 Register	Source1 register	Shift amount

I type

1. IADD OP(00 1000)
2. IN (2 INST?) OP(00 1001)
3. OUT OP(00 1010)
4. LDM OP(00 1011)
5. LDD OP(00 1100)
6. STD OP(00 1101)