AKHIL JAIN 14CS10003

SHUBHAM JAIN 14CS10043

OpCode Encoding (5-bits)		
Opcode	Operation	Addressing Mode
00000	add	immediate
00001	add	register
00010	sub	immediate
00011	sub	register
00100	and	immediate
00101	and	register
00110	or	immediate
00111	or	register
0100x	cmp	register
01010	mns	immediate
01011	mns	register
01100	ld	immediate
01101	ld	register
01110	ld	base-addressing
01111	sw	base-addressing
10000	j	PC-relative
10001	jz	PC-relative
10010	jnz	PC-relative
10011	jc	PC-relative
10100	jnc	PC-relative
10101	jv	PC-relative
10110	jnv	PC-relative
10111	jm	PC-relative
11000	jnm	PC-relative
11001	jal	PC-relative
11010	jr	PC-relative

There are 3 bits for register.

Depending upon this the offset would take 5 or 8 bits.

Load base-addressing would take 5-bit offset.

Jump PC-relative would take 8-bit offset.