|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Ins. | Ins. Op- code | RegDst | ALUSrc | | MemToReg | Reg  Write | Mem  Read | Mem  Write | Branch  Bne | Branch Beq | ALUOP | | | Jump |
| add | 0001 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| sub | 0010 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| and | 0011 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| or | 0100 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| sll | 0101 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| srl | 0110 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| slt | 0111 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| addi | 1001 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| lw | 1010 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| sw | 1011 | x | 0 | 1 | x | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| beq | 1100 | x | 0 | 0 | x | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| bne | 1101 | x | 0 | 0 | x | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| j | 1111 | x | 0 | 1 | x | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |