

| Instruction | Definition | Usage Example |
|-------------|---|--|
| MOV | Move data from one location to another. | <code>mov eax, ebx</code> moves the contents of the EBX register into the EAX register. |
| ADD | Add two operands and store the result. | <code>add eax, 10</code> adds the immediate value 10 to the contents of the EAX register. |
| SUB | Subtract two operands and store the result. | <code>sub eax, ebx</code> subtracts the contents of the EBX register from the EAX register. |
| CMP | Compare two operands and set the appropriate flags. | <code>cmp eax, ebx</code> compares the contents of the EAX and EBX registers and sets the appropriate flags. |
| JMP | Unconditionally jump to a new location in the code. | <code>jmp label</code> jumps to the code label. |
| JZ/JNZ | Jump if the zero flag is set or not set, respectively. | <code>jz label</code> jumps to the code label if the zero flag is set. |
| JE/JNE | Jump if two operands are equal or not equal, respectively. | <code>je label</code> jumps to the code label if the operands are equal. |
| CALL | Call a subroutine or function. | <code>call my_function</code> calls the function named <code>my_function</code> . |
| RET | Return from a subroutine or function. | <code>ret</code> returns from the current function. |
| PUSH | Push a value onto the stack. | <code>push eax</code> pushes the contents of the EAX register onto the stack. |
| POP | Pop a value from the stack into a register. | <code>pop ebx</code> pops the top value from the stack into the EBX register. |
| XOR | Perform a bitwise exclusive OR operation on two operands. | <code>xor eax, ebx</code> performs a bitwise XOR operation on the contents of the EAX and EBX registers. |
| AND | Perform a bitwise AND operation on two operands. | <code>and eax, ebx</code> performs a bitwise AND operation on the contents of the EAX and EBX registers. |
| OR | Perform a bitwise OR operation on two operands. | <code>or eax, ebx</code> performs a bitwise OR operation on the contents of the EAX and EBX registers. |
| NOT | Perform a bitwise NOT operation on an operand. | <code>not eax</code> performs a bitwise NOT operation on the contents of the EAX register. |
| SHL | Shift the bits of an operand left by a specified number of bits. | <code>shl eax, 1</code> shifts the contents of the EAX register left by one bit. |
| SHR | Shift the bits of an operand right by a specified number of bits. | <code>shr ebx, 3</code> shifts the contents of the EBX register right by three bits. |