**Data transfer instructions in 8085 microprocessor**

* Difficulty Level : [Easy](https://www.geeksforgeeks.org/easy/)
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Data transfer instructions are the instructions which transfers data in the microprocessor. They are also called copy instructions.

Following is the table showing the list of logical instructions: 

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| OPCODE | OPERAND | EXPLANATION | EXAMPLE |
| --- | --- | --- | --- |
| MOV | Rd, Rs | Rd = Rs | MOV A, B |
| MOV | Rd, M | Rd = Mc | MOV A, 2050 |
| MOV | M, Rs | M = Rs | MOV 2050, A |
| MVI | Rd, 8-bit data | Rd = 8-bit data | MVI A, 50 |
| MVI | M, 8-bit data | M = 8-bit data | MVI 2050, 50 |
| LDA | 16-bit address | A = contents at address | LDA 2050 |
| STA | 16-bit address | contents at address = A | STA 2050 |
| LHLD | 16-bit address | directly loads at H & L registers | LHLD 2050 |
| SHLD | 16-bit address | directly stores from H & L registers | SHLD 2050 |
| LXI | r.p., 16-bit data | loads the specified register pair with data | LXI H, 3050 |
| LDAX | r.p. | indirectly loads at the accumulator A | LDAX H |
| STAX | 16-bit address | indirectly stores from the accumulator A | STAX 2050 |
| XCHG | none | exchanges H with D, and L with E | XCHG |
| PUSH | r.p. | pushes r.p. to the stack | PUSH H |
| POP | r.p. | pops the stack to r.p. | POP H |
| IN | 8-bit port address | inputs contents of the specified port to A | IN 15 |
| OUT | 8-bit port address | outputs contents of A to the specified port | OUT 15 |
|  |  |  |  |

In the table,   
R stands for register   
M stands for memory   
r.p. stands for register pair