

WELCOME TO THE PRESENTATION

JAMES KARKI

MICROPROCESSOR





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Assembly Level Programs

8085



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Assembly Level Language is a low-level language that helps to communicate directly with computer hardware. It uses mnemonics to represent the operations that a processor has to do.



MICROPROCESSOR

Assembly Level Programs

8085

- Needs less memory and time
 - Less number of codes
 - Extensive understanding of device operation
-

How to perform programming in 8085 ?

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OFFLINE

ONLINE

01

ADDITION OF TWO 8BIT NUMBERS

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LXI H,C055

MOV A,M

INX H

ADD M

STA C057

HLT

SUBTRACTION OF TWO 8BIT NUMBERS

02



SUBTRACTION OF TWO 8BIT NUMBERS

LXI H,C021

MOV A,M

INX H

SUB M

STA C024

HLT

WAP to load the data byte in the register C. Mask the high-order bits and display the low order bits at OUT PORT 1. Exclusive OR the result with 57 H and display at OUT PORT 2.

WAP to load the data byte in the register C. Mask the high-order bits and display the low order bits at OUT PORT 1. Exclusive OR the result with 57 H and display at OUT PORT 2.

MVI C,20H

MOV A,C

ANI 0FH *Perform a bitwise AND operation with the accumulator A and 0FH*

STA 2005H

XRI 32H *bitwise XOR operation with the accumulator A and 32H*

STA 2006H

HLT

The following block of data is stored in memory location from C055 to C05AH. Transfer the entire block of data to the location C080 to C085H in reverse order.
Data: 22,A2,B3,99,8F,37

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```
LXI H, C055H
```

```
LXI D, C085H
```

```
MOV B, 06H
```

```
Next: MVI A,M
```

```
STAX D
```

```
INXH      Increment HL to point to the next address
```

```
DCXD      Decrement DE to point to the previous address
```

```
DCRB      Jump to label 'Next' if B is not zero
```

```
JNZ Next
```

```
HLT
```

CO55H

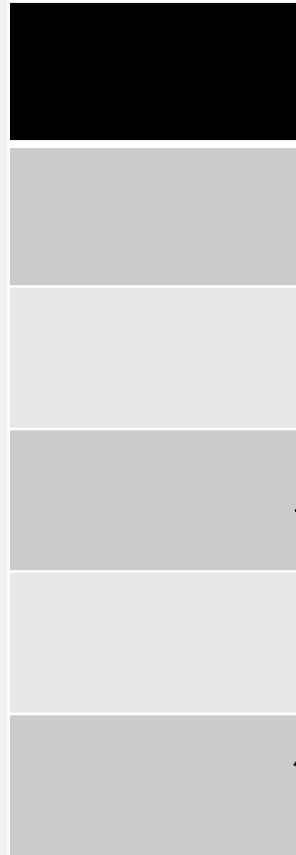
CO56H

CO57H

CO58H

CO59H

CO5AH



SOURCE

CO80H

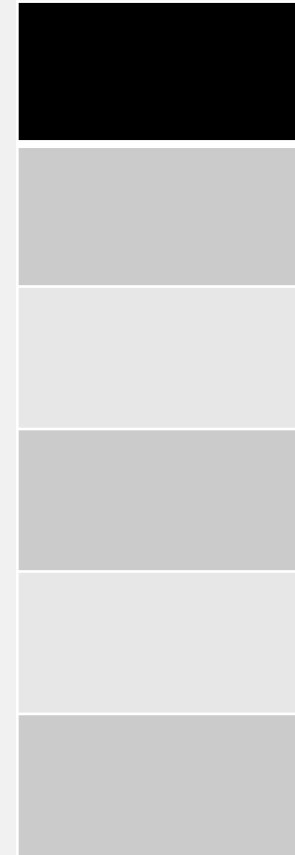
CO81H

CO82H

CO83H

CO84H

CO85H



DESTINATION

LXI H, C055H

LXI D, C085H

MVI B, 06H

Next: MOV A,M

STAX D

INXH Increment HL to point to the next address

DCXD Decrement DE to point to the previous address

DCRB

JNZ Next Jump to label 'Next' if B is not zero

HLT

Write a program to find larger of two numbers.
1st number in C001 and 2nd number in C002
and result in C003H.

Write a program to find larger of two numbers. 1st number in C001 and 2nd number in C002 and result in C003H.

```
LXI H, C001H
    MOV A,M
    INX H
    CMP M
    JNC Loop    Jump to the label 'loop' if there is no carry
    MOV A,M
Loop : STA C003H
    HLT
```