

## Variables

### Directive Addressing

Name	means	example	size/bit	size/byte
DB	Define byte	'Y'	8bits	1byte
DW	Define word	12345/-12345	16bits	2bytes
DD	Define <small>double</small> word	1.234	32bits	4bytes
DQ	Define Quad word	12345678910	64bits	8bytes
DT	Define Ten Bytes	10^100	80bits	10bytes

### Indirect Addressing

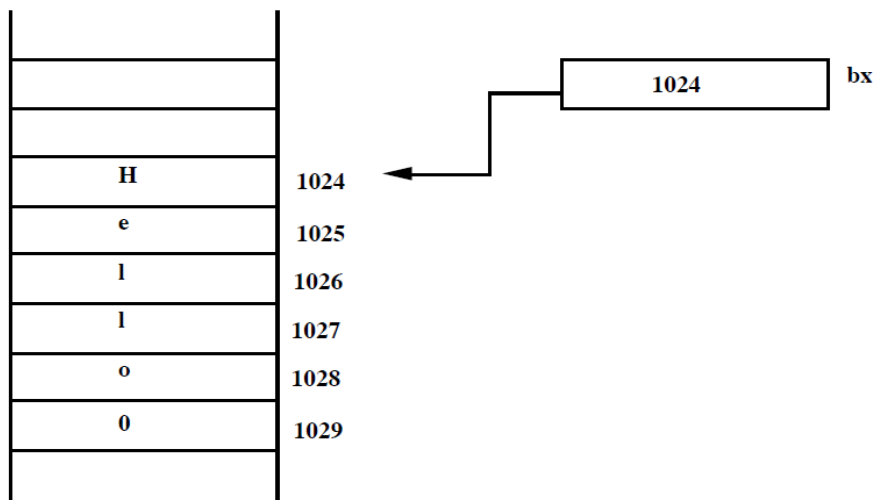
Defined a string variable **message** as

message db 'Hello',

If the 'H' is in location 1024, then 'e' will be in location 1025, 'l' will be in location 1026 and so on. [BX/bx]

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<https://www.youtube.com/watch?v=6hkKb4hOZmQ&list=PLiceGnDCE4XZdGymw66QH3o1tp2JbXLGA>



Use the **Bx** register for indirect addressing

## Assembly Language Format Instructions

Label      Operation      Operands      ; Comment

1. All four fields need **not** be present in every instruction
2. **operation field** is **always** necessary
3. Operand fields may or may not be required depending on the operation field.
4. If necessary use comment.

ADD    AX, 25                      operation and 2 operands  
   ↓        ↓        ↓  
 Operation    operands              use comma between two operands

L1:    cmp bx, cx    ; Compare bx with cx    *all fields present*  
       add ax, 25                      *operation and 2 operands*

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inc bx  
ret  
; Comment: whatever you wish !!

*operation and 1 operand*  
*operation field only*  
*Comment field only*

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