DISPLAY A STRING

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AIM:

To write an assembly language program to display a string through the standard output.

PROGRAM – 1: DISPLAY A STRING:

ALGORITHM:

1. Begin.

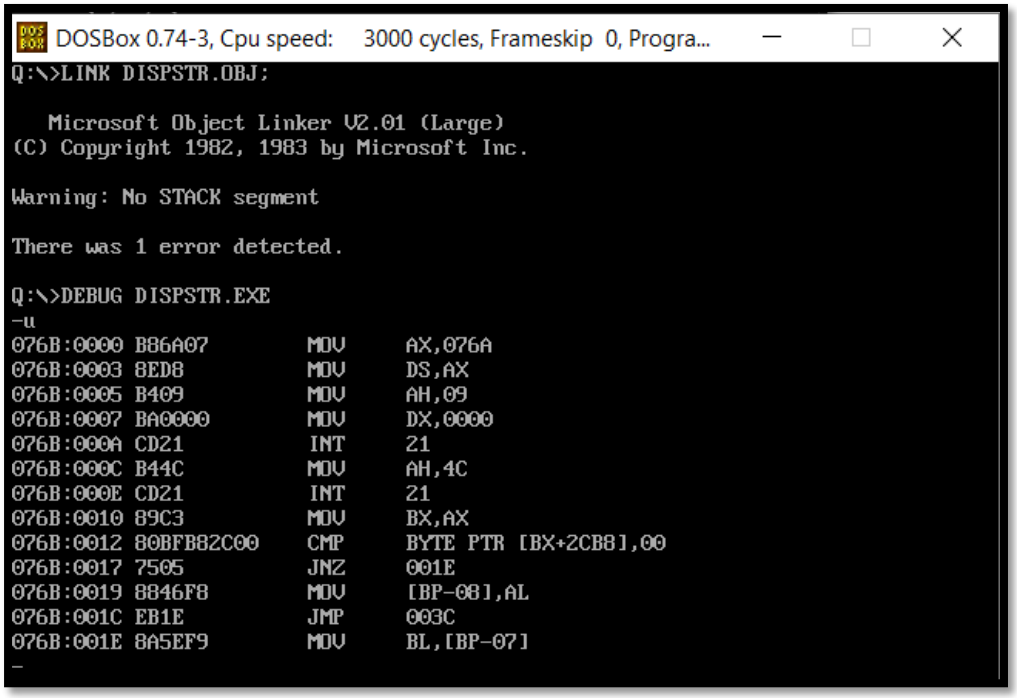
2. Declare the data segment.
3. Initialize data segment with a variable for a string “Hello World!”
4. Close the data segment.

5. Declare the code segment.
6. Set a preferred offset (preferably 100h)
7. Load the data segment content into AX register.
8. Load 09h into AH register (DOS function to write to standard output)
9. Store the offset of the string in DX register.
10. Introduce an interrupt for safe exit. (INT 21h)
11. Close the code segment.

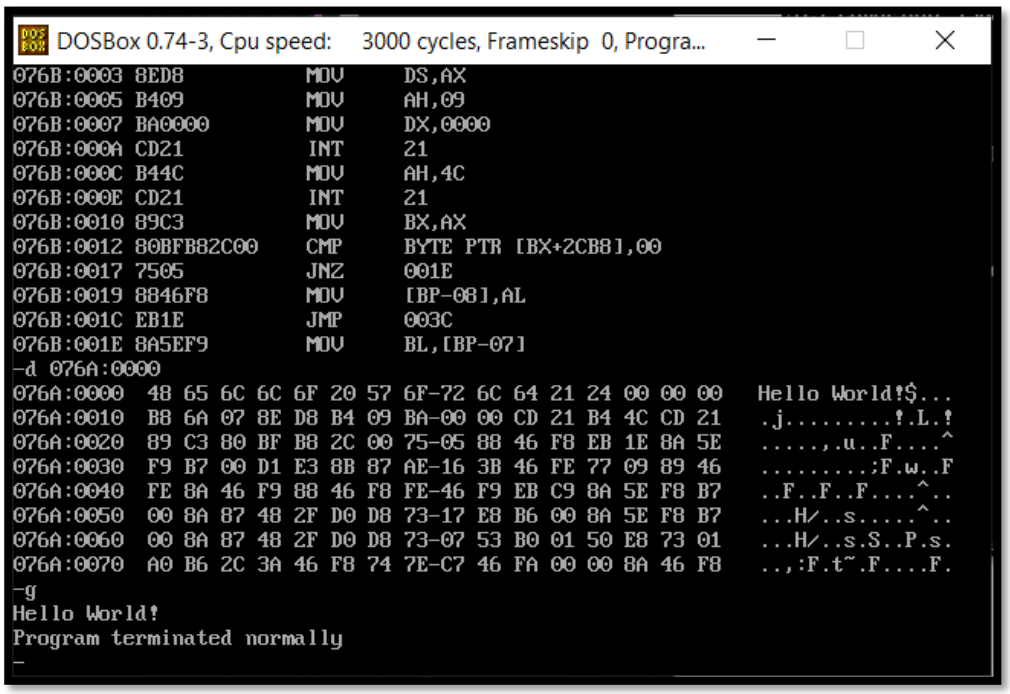
12. End.

PROGRAM	COMMENTS
assume cs:code, ds:data	Declare code and data segment.
data segment	Initialize data segment with values.
message db “Hello World!$”	Variable message has “Hello World!” as a string.
data ends	
code segment	Start the code segment.
org 0100h	Initialize an offset address.
start: mov ax, data	Transfer data from “data” to AX.
mov ds, ax	Move contents of AX to DS.
mov ah, 9	AH = 09h for DOS function to write to STDOUT.
mov dx, offset message	Load offset address of message to DX.
mov ah, 4ch	
int 21h	Interrupt the process with return code and exit.
code ends	
end start	

UNASSEMBLED CODE:



SAMPLE I/O SNAPSHOT:



RESULT:

The assembly level program was written to display a string and the output was verified.