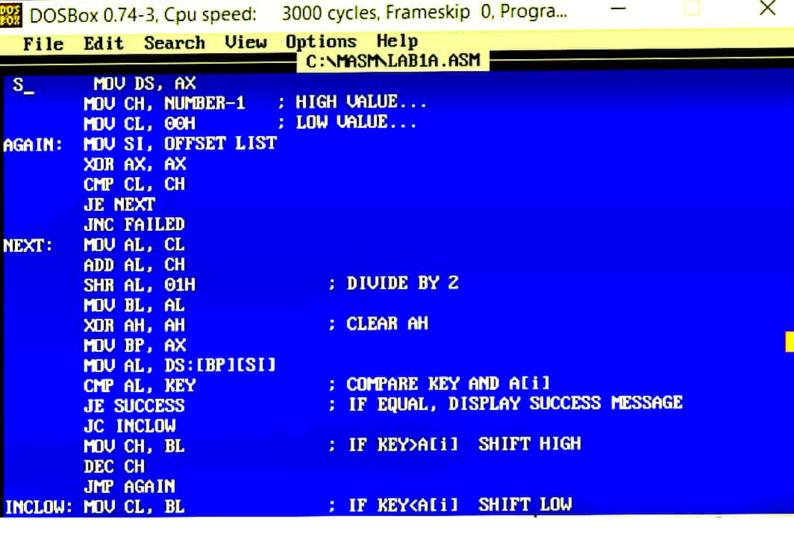
```
File Edit Search View Options Help
                             C:\MASM\LAB1A.ASM
S: PROGRAM :: ASSEMBLY LANGUAGE PROGRAM TO SEARCH A KEY ELEMENT IN A
             LIST OF 'n' NUMBER USING THE BINARY SEARCH ALGORITHM
.MODEL SMALL
; MACRO TO DISPLAY THE MESSAGE....
DISPLAY MACRO MSG
        LEA DX, MSG
        MOV AH, 09H
        INT 21H
ENDM
.DATA
LIST DB 01H, 05H, 07H, 10H, 12H, 14H
NUMBER EQU ($-LIST)
KEY DB 011H
MSG1 DB ODH, OAH, "ELEMENT FOUND IN THE LIST...$"
MSG2 DB ODH, OAH, "SEARCH FAILED !! ELEMENT NOT FOUND IN THE LIST $"
.CODE
START : MOV AX, @DATA
```

DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...

X



S_ MOU BL, AL

XOR AH, AH ; CLEAR AH

MOV BP, AX

MOU AL, DS:[BP][SI]

CMP AL, KEY : COMPARE KEY AND A[i]

JE SUCCESS : IF EQUAL, DISPLAY SUCCESS MESSAGE

JC INCLOW

MOU CH, BL : IF KEY>A[i] SHIFT HIGH

DEC CH JMP AGAIN

INCLOW: MOU CL, BL : IF KEY<A[i] SHIFT LOW

INC CL JMP AGAIN

SUCCESS: DISPLAY MSG1

JMP FINAL

FAILED: DISPLAY MSG2 ; JOB OVER. TERMINATE....

FINAL : MOV AH, 4CH

INT 21H

END START

		=
A Control		_
A STATE OF THE STA		_
	Binary search.	_
	PROGRAM :: ASSEMBLY LANGUAGE PROGRAM TO SEAKCH PROGRAM :: ASSEMBLY LANGUAGE PROGRAM TO SEAKCH A KEY ELEMENT IN THE USI OF 'N' NUMBER	_
100	PROGRAM :: ASSEMBLY LANGUAGE PROGRAM TO NUMBER A KEY ELEMENT IN THE LIST OF 'N' NUMBER CEARCH ALGORITHM	_
	A KEY ELEMENT IN THE CONTINHO USING THE BINARY SEARCH ALGORITHM	_
	UTING	_
	MODELSMALL	_
		_
	; MACRO TO DISPLAY THE MESTAGE	_
	DISPLAY MACKO MIGH	_
	LEA DX, MSG	_
	Mov AH, 09H	_
/	INT 21H	_
-	END M	_
	. 005.	_
1	· DATA	_
	LET DB OIH, OSH, OTH, 10H, 12H, 14H	_
	NUMBER EQU (\$ - LIST)	
	KEY DB OIL H	
	MSWI DB ODH, OAH " Flemed found in the list 5"	
	MIGH DB ODIH, OAH, "SEARCH FAILER !! ELEMENT WOT	
	FOUND IN THE LIST S "	_
-		
	, CODE	
	START: MOV AX, @datu	1
	MOV DS, AM	
	hole (H) was also	
	MOV CH, NUMBER-1: HIGH VALUE	1
	MOV CL, OOH; LOW MALUE	-
		_
	AGAIN: MOV ST, OFFSET LIST	
	XGR AX, AX	
	CMP CL, CH	100
	JE NEXT	
11		

JNC FAILED	
NEXT: MOV AL, CH	
ADD AL, CIT	
SHR AL, OH	; 01 v1 DE BY 2
tov DL, AL	
XOR AH, AH	; (LEAK AH
MOV BP, AX	
MOV AL, DS: (PP)C	.SI)
CMP AL, KEY	; COMPAKE (LEY AND ACI)
JE SUCCESS	; IF Equal, PIGDAY SUCCESS
JC INCLOM	ATESSAGE
MOV CH, &C	; IF KEY JALI) SHIFH HIGH
DF C CH	
THPAGAIN	
	; It KEY CALI) SHIFT LOW
hov ply fil	
XOR AH, ALI	CLEAR AH
how pe, Ax	
mor AL, DS:	CPP)(SI)
Chp/AL, KFY	- (oneAkt KEY AVD A(i)
JE SUCCESS	
JC/ inclor	
nor chal	
WCL BECCH	
JM P AGAIN	
ruccess: DISPLAY TIGG	
JM P FINAL	
FAILED: DISPLAYMOUL	; jobany : telminde
FINAL: MOL AH, 4CH	
127 24	
END START	