DMACRO TO DISPLAY THE MERINGS.  DESPLAY MACRO MSG  IEA DX, MSG  MOV AH, 09H  ENDM  DATA  LIDST DB OH, 05H, 07H, 10H, 12H, 14H  NUMBER E QU (\$ -LIST)  KEY DB 012H  MSG1 DB DDH, OAH, "ELEMENT foiled! element  MSG2 DB DDH, OAH, "Broach foiled! element  NOT GODE  START: MOV AX, @DATA  MOV CL, OOH  AGAIN: MOV SI; OFFSET LIST  MACAIN: MOV SI; OFFSET LIST  MOD CL, CH  JE NEXT		
DISPLAY MACRO MSG  LEA DX, MSG  MOV AH, 09H  PNT 21H  ENDM DATA  LIBST DB OH, 05H, 07H, 10H, 12H, 14H  NUMBER E QU (\$ -LIST)  KEY DB 012H  MSG1 DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB ODH, OAH, "Busch foiled !! element  rot found in list s."  CODE  START: MOV AX, @DATA  MOV CH, Number - I shigh value  MGAIN: MOV SI; OFFSET list.  XOR AX, AX  OND CL, CH  JE NEXT		MODEL SMALL
DISPLAY MACRO MSG  LEA DX, MSG  MOV AH, 09H  PNT 21H  ENDM DATA  LIBST DB OH, 05H, 07H, 10H, 12H, 14H  NUMBER E QU (\$ -LIST)  KEY DB 012H  MSG1 DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB ODH, OAH, "Busch foiled !! element  rot found in list s."  CODE  START: MOV AX, @DATA  MOV CH, Number - I shigh value  MGAIN: MOV SI; OFFSET list.  XOR AX, AX  OND CL, CH  JE NEXT		DMACRO TO DISPLAY THE ME CHAG!
MOV AH, 09H  PNT DH  ENDM DATA  LDST DB OH, 05H, 07H, 10H, 12H, 14H  NUMBER E QU (\$ -LTST)  KEY DB 012H  MSG1 DB DDH, OAH, "ELEMENT found in the list  MSG2 DB DDH, OAH, "Evanch foiled! element  rot found in list s"  CODE  START: MOV AX, @DATA  MOV CH, Number - I shigh value  AGATN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		DESPLAY MACRO MSG
MOV AH, 09H  PNT 21H  ENDM DATA  LIST DB OH, 05H, 07H, 10H, 12H, 14H  NUMBER E QU (\$-LIST)  KEY DB 012H  MSG1 DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB ODH, OAH, "Branch failed it element  not found in list is"  CODE  START: MOV AX, QDATA  MOV CH, Number - I shigh value  AGAIN: MOV SI; OFFSET list.  XOR AX, AX  MP CL CH  JE NEXT		A G > 1" V US 1 (L. 1)
ENDM  DATA  LEST DB OH, OSH, OTH, IDH, IDH, IDH, IDH, IDH, IDH, IDH, ID		MOV AH, 09H
DATA  LIST DB OIH, OSH, OTH, IOH, 12H, 14H  NUMBER E QU (\$-LIST)  KEY DB OIDH  MSGI DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB O.DH, OAH, "Branch failed!! element not found in list is"  CODE  START: MOV AX, @DATA  MOV CH, Number - 1 ; high value  AGAIN: MOV SI; OFFSET list  XOR AX, AX  MP CL, CH  TE NEXT		1 60 4000
LDST DB OIH, OSH, OTH, IDH, IZH, 14HX  NUMBER E QU (\$-LTST)  KEY DB OIZH  MSGI DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB O.DH, OAH, "Branch failed! element not found in list s"  CODE  START: MOV AX, @DATA  MOV CH, Number - I shigh value  AGAIN: MOV SI; OFFSET list  XOR AX, AX  MP CL, CH  JE NEXT		ENDW 6 19 AND
LIST DB OH, OSH, OTH, 10H, 12H, 14H  NUMBER E QU (\$-LIST)  KEY DB O12H  MSG1 DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB O.DH, OAH, "Element found in the list.  Not found in list is"  CODE  START: MOV AX, @DATA  MOV CH, Number - 1 ; high value  MGAIN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		14 100 140
NUMBER E QU (\$-LIST)  KEY DB 012H  MSG1 DB DDH, OAH, "ELEMENT found in the list.  MSG2 DB O.DH, OAH, "Blanch foiled!! element rot found in list is"  CODE  START: MOV AX, @DATA  MOV DS, AX  MOV CH, Number - 1 , high value  MGAIN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		
KEY DB 012H  MSGI DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB O.DH, OAH, "Element found in the list.  Not found in list is."  CODE  START: MOV AX, QDATA  MOV CH, Number - 1 ; high value  MGATN: MOV SI; OFFSET list.  XOR AX, AX  OMP CL, CH  JE NEXT		NUMBER E OU (S-LIST)
MSGI DB ODH, OAH, "ELEMENT found in the list.  MSG2 DB ODH, OAH, "Element found in the list.  Not found in list."  CODE  START: MOV AX, @DATA  MOV CH, Number - I shigh value  MSG1 DB ODH, OAH, "Element found in the list.  MSG2 DB ODH, OAH, "Element found in the list.  Not found in list."  Not found in list.  Now CH, Number - I shigh value  AGAIN: MOV SI; OFFSet list.  XOR AX, AX  OMP CL, CH  JE NEXT		PEN DE MINH
MSG2 DB Q.DH, QAH, "Branch failed"; element  not-found in list ";"  CODE  START: MOV AX, QDATA  MOV DS, AX  MOV CH, Number - 1 ; high value  MAGAIN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		MSCI DR AND MAH "FI FMENT found in the list.
ODE  START: MOV AX, @DATA  MOV DS, AX  MOV CH, Number - 1  Migh value  MOV CL, ODH  AGAIN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		McCo DB any any "franch chailed it element
START: MOV AX, @DATA 100000000000000000000000000000000000		not could be lich it
START: MOV AX, @DATA  MOV DS, AX  MOV CH, Number - 1 ; high value  MOV CL, ODH  Low value  AGAIN: MOV SI; OFFSet list  XOR AX, AX  OMP CL, CH  JE NEXT		CODC (10 - 10 - 10 - 10 - 10 - 10 - 10 - 10
mov DS, AX  mov CH, Number - 1 ; high value  mov CL, ODH  AGAIN : MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		
mov CH, Number - 1 ; high value  mov CL, ODH  AGAIN: MOV SI; OFFSET list  XOR AX, AX  OMP CL, CH  JE NEXT		
AGAIN: MOV SI; OFFSET LIST.  XOR AX, AX  OMP CL, CH  JE NEXT		mov DS, Ar
AGAIN: MOV SI; OFFSET LIST.  XOR AX, AX  OMP CL, CH  JE NEXT		mov CH, Number - 1 ; high value
AGAIN: MOV SI; OFFSET LIST.  XOR AX, AX  OMP CL, CH  JE NEXT		mov CL, ODH CLow valce
MP CLICH TO THE SERVENT		AGAIN: MOV SI; OFFSET LIST
JE WEXT HID WAR		11.07.38
	Ĭ.	as out of the motion - dust
		JE NEXT HI DENDER 1
JNC FAILFD &= HO 17		JNC FATLED 6= HO ST
NEXT: MOV ALCL		
APD ALICH 1-0-10		1
SHR ALIOIH 38. 542		SHR AL, 01H : 3 . 5 . 5 . 2
mov BL, AL		

		Variety
	XDR DH, AH	
	mov BP, AX	and the second s
	mov AL, DS; [BP[SI]	
	CMP AL Key	
	JE SUCCENS	
	JC INCLOW.	
	mov CH (BL	; IF Key > A(I)
	DEC CH	Fire Keys A(I)  Shop Fing h
	JMP AGA-IN	
Inclowe	mov (L, BL	
all a	INC CL	
	JMP AGAIN	
SUCCE 4:	DISPLAY MSGI	
	JMP FENAL	
failed:	DISPLAY MSG 2	
PINAL:	4.1.	
	INT 214	
	END	
		The state of the s

```
C:\MASM>MASM PRG1;;
dicrosoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51518 + 465026 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\MASM>LINK PRG1;;
dicrosoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

LINK: warning L4021; no stack segment

C:\MASM>PRG1

c:\MASM>PRG1

c:\MASM>PRG1
```

C:\MASM>EDIT PRG1.ASM

		cal————————————————————————————————————	
ZA:0000 B8ZE05	MOV	AX,052E	BX = 0000
52A:0003 BEDB	MOV	DS,AX	CX = 0000
52A:0005 B505	MOV	CH,05	DX = 0000
52A:0007 B100	MOV	CL,00	SP = 0000
52A:0009 BE0E00	MOV	SI,000E	BP = 0000
52A:000C 33C0	XOR	AX,AX	SI = 0000
952A:000E 3ACD	CMP	CL,CH	DI = 0000
952A:0010 7402	JZ	0014	DS = 051A
052A:0012 73ZE	JNB	0042	ES = 051A
052A:0014 BAC1	MDU	AL,C <mark>L</mark>	SS = 0529
052A:0016 02C5	ADD	AL,CH	CS = 052A
052A:0018 DOE8	SHR	AL,1	IP = 0000
052A:001A 8AD8	MOV	BL,AL	FL = 0200
052A:001C 32E4	XOR	AH,AH	
052A:001E 8BE8	MOV	BP,AX	NU UP EI PL
052A:0020 3EBA02	MOV	AL,Byte Ptr DS:[BP+S]]	NZ NA PO NC
	CO	mmand	1
CV1053 Warning: TOO	ILS.INI not	found	T T
CU0101 Warning: No	symbolic in	formation for C:\MASM\PRG1.EXE	
p   2_		\$	
	OF CELEVISION	F6=Window> <f3=display></f3=display>	→† <sub>1</sub>