

NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

PROGRAM USING MULTIPLY:

```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG1 DB 'ENTER A NUMBER:$'
MSG2 DB 'MULTIPLICATION:$'
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG1
MOV AH,9
INT 21H
MOV AH,1                                ;INPUT FIRST NUMBER
INT 21H
MOV BL,AL                                ;MOVE INPUT TO BL
SUB BL,48
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG1
MOV AH,9
INT 21H
MOV AH,1                                ;INPUT SECOND NUMBER
INT 21H
SUB AL,48
MUL BL                                  ;MULTIPLY AL,BL
AAM
MOV CH,AH                                ;MOVE FIRST RESULT TO CH
MOV CL,AL                                ;MOVE SECOND RESULT TO CL
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG2
MOV AH,9
INT 21H
MOV DL,CH                                ;PRINT FIRST NUMBER
ADD DL,48
MOV AH,2
INT 21H
MOV DL,CL                                ;PRINT SECOND NUMBER
ADD DL,48
MOV AH,2
INT 21H
MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```

NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\F13(MUL).ASM
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG1 DB 'ENTER A NUMBER:$'
MSG2 DB 'MULTIPLICATION:$'
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG1
MOV AH,9
INT 21H
MOV AH,1
INT 21H
MOV BL,AL
SUB BL,48
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG1
MOV AH,9
F1=Help
Line:1 Col:1
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT
File Edit Search View Options Help
C:\F13(MUL).ASM
INT 21H
MOV AH,1
INT 21H
SUB AL,48
MUL BL
AAM
MOV CH,AH
MOV CL,AL
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG2
MOV AH,9
INT 21H
MOV DL,CH
ADD DL,48
MOV AH,2
INT 21H
MOV DL,CL
ADD DL,48
MOV AH,2
INT 21H
F1=Help
Line:44 Col:1
```

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
C:\>

C:\>EDIT F13(MUL).ASM

C:\>MASM F13(MUL).ASM;
Microsoft (R) Macro Assembler Version 5.00
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51650 + 464894 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>LINK F13(MUL).OBJ;

Microsoft (R) Overlay Linker Version 3.60
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C:\>F13(MUL).EXE
ENTER A NUMBER:4
ENTER A NUMBER:8
MULTIPLICATION:32
C:\>
```

NAME: ZEHRA MOHAMMAD TAQI
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PROGRAM FOR CONDITIONAL JUMP:

```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG DB 'ENTER NUMBER FOR COMPARISON:$'
MSG1 DB 'NUMBER LESS THAN EQUAL TO 5$'
MSG2 DB 'NUMBER NOT LESS THAN EQUAL TO 5$'
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG
MOV AH,9
INT 21H
MOV AH,1                ;INPUT NUMBER
INT 21H
MOV DL,'5'              ;COMPARSION NUMBER
CMP AL,DL               ;COMPARISON CONDITION
JLE L1                  ;JUMP STATEMENT

MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG2
MOV AH,9
INT 21H
MOV AH,4CH
INT 21H

L1:                      ;LOOP FOR JUMP
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG1
MOV AH,9
INT 21H
MOV AH,4CH
INT 21H

MAIN ENDP
END MAIN
```

NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT

File Edit Search View Options Help

C:\F14(JUMP.ASM

DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG DB 'ENTER NUMBER FOR COMPARISON:\$'
MSG1 DB 'NUMBER LESS THAN EQUAL TO 5\$'
MSG2 DB 'NUMBER NOT LESS THAN EQUAL TO 5\$'
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG
MOV AH,9
INT 21H
MOV AH,1
INT 21H
MOV DL,'5'
CMP AL,DL
JLE L1

MOV DX,10
MOV AH,2

F1=Help

Line:1 Col:1

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT

File Edit Search View Options Help

C:\F14(JUMP.ASM

INT 21H
MOV DX,OFFSET MSG2
MOV AH,9
INT 21H
MOV AH,4CH
INT 21H

L1:
MOV DX,10
MOV AH,2
INT 21H
MOV DX,OFFSET MSG1
MOV AH,9
INT 21H
MOV AH,4CH
INT 21H

MAIN ENDP
END MAIN

F1=Help

Line:44 Col:1

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX

C:\>EDIT F14.ASM

C:\>MASM F14.ASM:
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0 Warning Errors
0 Severe Errors

C:\>LINK F14.OBJ;

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C:\>F14.EXE
ENTER NUMBER FOR COMPARISON:5
NUMBER LESS THAN EQUAL TO 5
C:\>F14.EXE
ENTER NUMBER FOR COMPARISON:8
NUMBER NOT LESS THAN EQUAL TO 5

NAME: ZEHRA MOHAMMAD TAQI
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PROGRAM FOR MULTIPLICATION AND JUMP:

```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG DB 'ENTER A NUMBER FOR MULTIPLICATION(0-9):$'
NUM DB ?
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG
MOV AH,9
INT 21H

MOV AH,1
INT 21H
SUB AL,'0'
MOV NUM,AL          ;STORE INPUT IN VARIABLE NUM
MOV DX,10
MOV AH,2
INT 21H

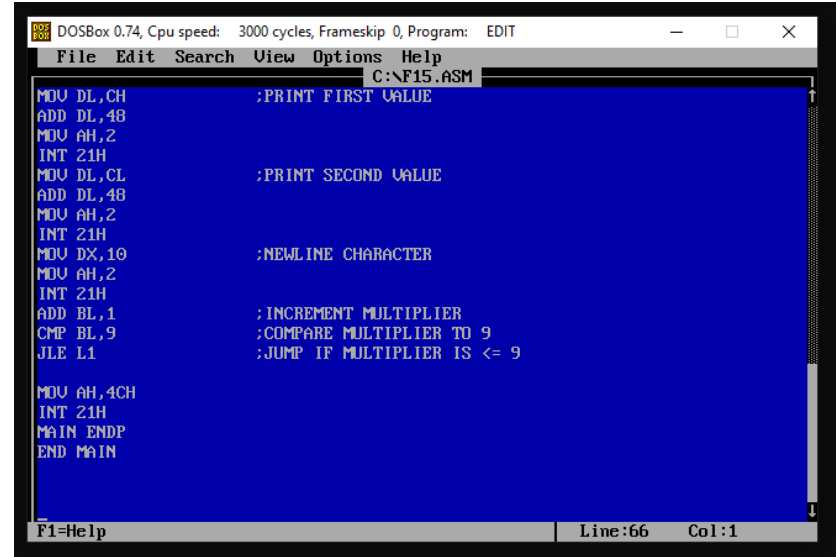
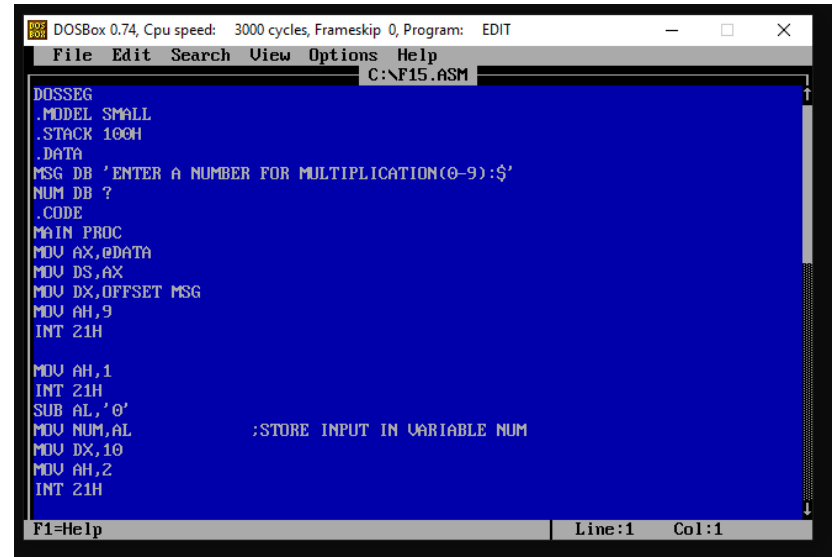
MOV BL,1            ;INITIAL MULTIPLIER BY 1

L1:
MOV AL,NUM
MUL BL              ;MULTIPLY AL BY BL
AAM
MOV CH,AH           ;MOVE VALUE OF AH IN CH
MOV CL,AL           ;MOVE VALUE OF AL IN CL
MOV DL,BL           ;PRINT MULTIPLIER
ADD DL,48
MOV AH,2
INT 21H
MOV DL,'*'
MOV AH,2
INT 21H
MOV DL,NUM          ;PRINT MULTIPLICANT
ADD DL,48
MOV AH,2
INT 21H
MOV DL,'='
MOV AH,2
INT 21H
MOV DL,CH           ;PRINT FIRST VALUE
ADD DL,48
MOV AH,2
INT 21H
MOV DL,CL           ;PRINT SECOND VALUE
ADD DL,48
MOV AH,2
INT 21H
MOV DX,10           ;NEWLINE CHARACTER
MOV AH,2
INT 21H
ADD BL,1            ;INCREMENT MULTIPLIER
```

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```
CMP BL,9           ;COMPARE MULTIPLIER TO 9
JLE L1            ;JUMP IF MULTIPLIER IS <= 9

MOV AH,4CH
INT 21H
MAIN ENDP
```



NAME: ZEHRA MOHAMMAD TAQI

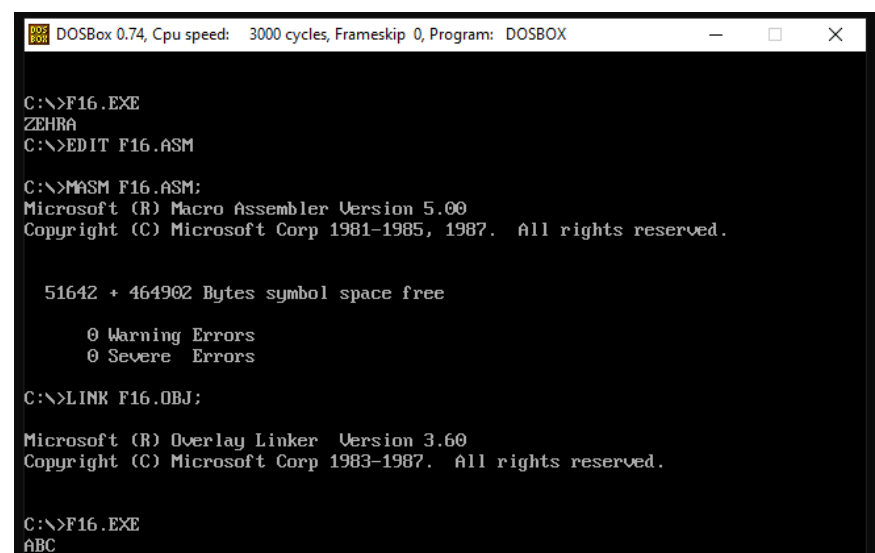
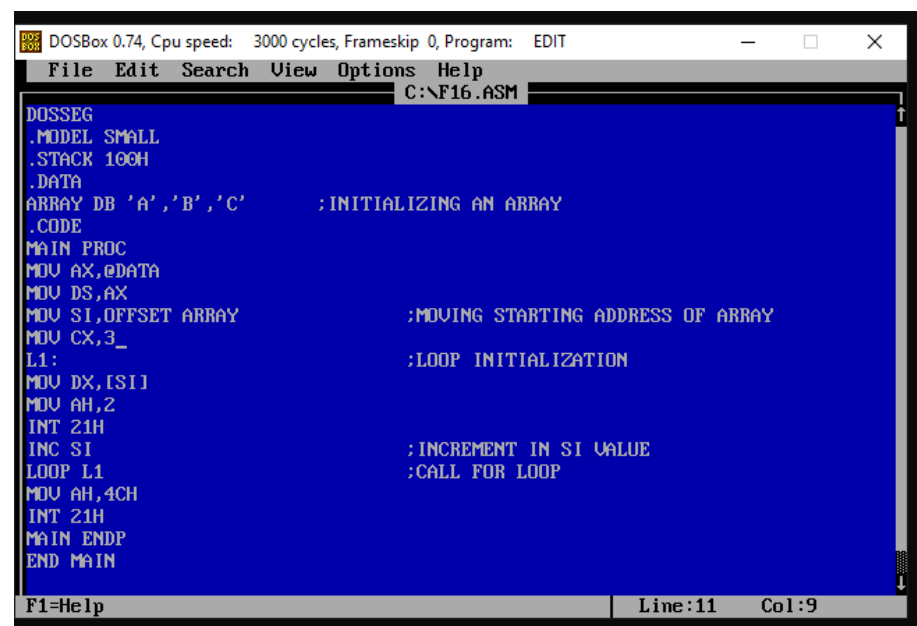
SEAT NO: B21110006167

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
51680 + 464864 Bytes symbol space free
0 Warning Errors
0 Severe Errors
C:\>LINK F15.OBJ;
Microsoft (R) Overlay Linker Version 3.60
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C:\>F15.EXE
ENTER A NUMBER FOR MULTIPLICATION(0-9):7
1*7=07
2*7=14
3*7=21
4*7=28
5*7=35
6*7=42
7*7=49
8*7=56
9*7=63
```

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PROGRAM TO PRINT ARRAY USING LOOP:

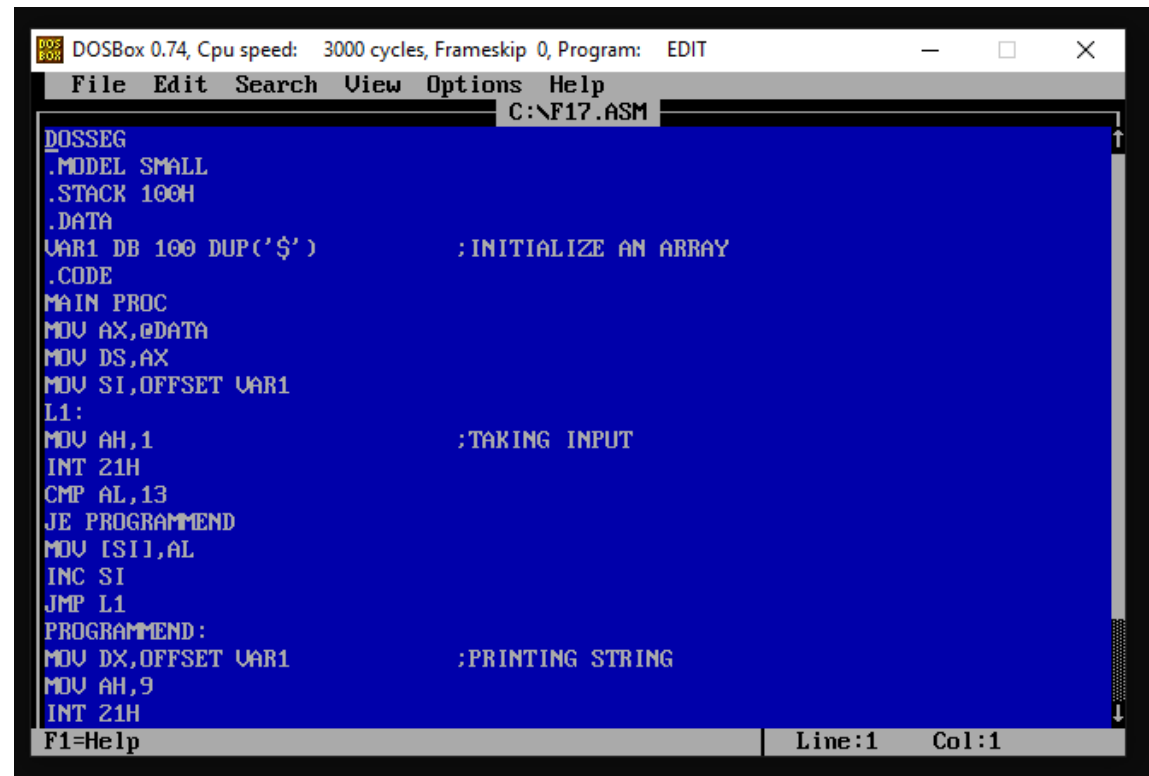
```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
ARRAY DB 'A','B','C'           ;INITIALIZING AN ARRAY
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV SI,OFFSET ARRAY           ;MOVING STARTING ADDRESS OF ARRAY
MOV CX,3
L1:                             ;LOOP INITIALIZATION
MOV DX,[SI]
MOV AH,2
INT 21H
INC SI                         ;INCREMENT IN SI VALUE
LOOP L1                        ;CALL FOR LOOP
MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```



NAME: ZEHRA MOHAMMAD TAQI
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PROGRAM TO INPUT STRING AND PRINT IT:

```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
VAR1 DB 100 DUP('$')           ;INITIALIZE AN ARRAY
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV SI,OFFSET VAR1
L1:
MOV AH,1                      ;TAKING INPUT
INT 21H
CMP AL,13
JE PROGRAMMEND
MOV [SI],AL
INC SI
JMP L1
PROGRAMMEND:
MOV DX,OFFSET VAR1           ;PRINTING STRING
MOV AH,9
INT 21H
MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```



NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
0 Warning Errors
2 Severe Errors

C:\>EDIT F17.ASM

C:\>MASM F17.ASM;
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0 Warning Errors
0 Severe Errors

C:\>LINK F17.OBJ;

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C:\>F17.EXE
ABCDEF
ABCDEF
```

NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

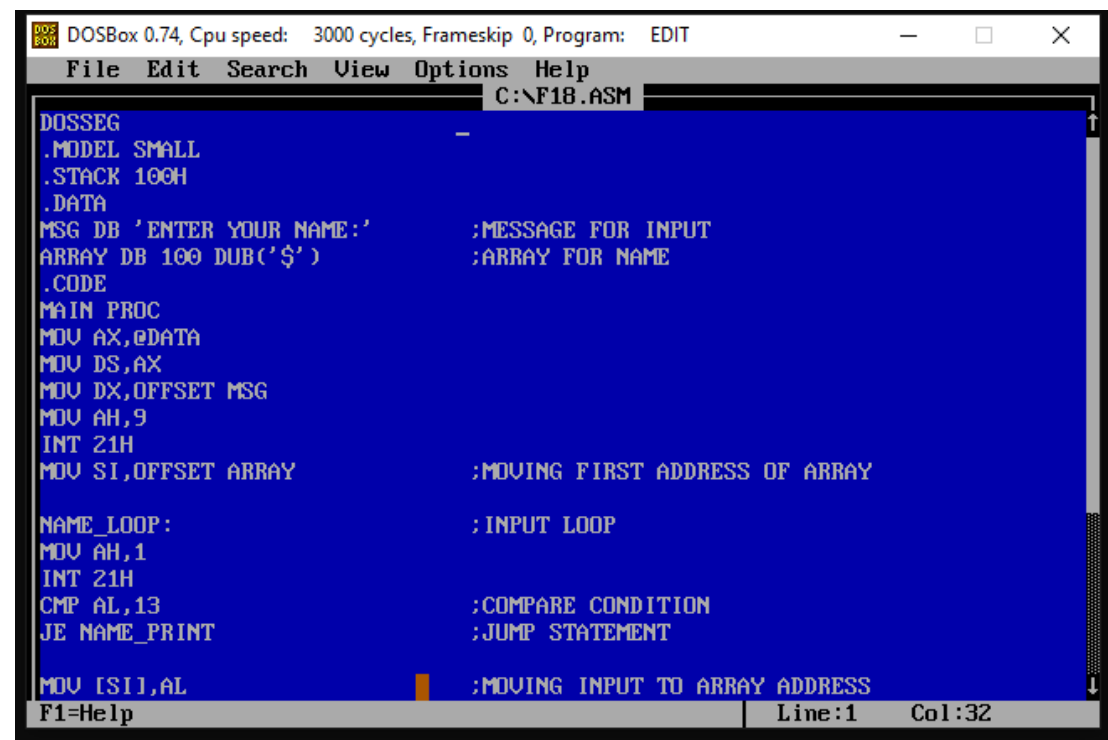
YOUR CODE USING ARRAY AND STRING:

```
DOSSEG
.MODEL SMALL
.STACK 100H
.DATA
MSG DB 'ENTER YOUR NAME:'      ;MESSAGE FOR INPUT
ARRAY DB 100 DUP('$')          ;ARRAY FOR NAME
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV DX,OFFSET MSG
MOV AH,9
INT 21H
MOV SI,OFFSET ARRAY            ;MOVING FIRST ADDRESS OF ARRAY

NAME_LOOP:                     ;INPUT LOOP
MOV AH,1
INT 21H
CMP AL,13                     ;COMPARE CONDITION
JE NAME_PRINT                  ;JUMP STATEMENT

MOV [SI],AL                    ;MOVING INPUT TO ARRAY ADDRESS
INC SI
JMP NAME_LOOP

NAME_PRINT:                     ;CONDITIONAL JUMP
MOV DX,OFFSET ARRAY
MOV AH,9
INT 21H
MAIN ENDP
END MAIN
```



NAME: ZEHRA MOHAMMAD TAQI
SEAT NO: B21110006167

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT

File Edit Search View Options Help

C:\F18.ASM

```
INC SI
JMP NAME_LOOP

NAME_PRINT:                                ;CONDITIONAL JUMP
MOV DX,OFFSET ARRAY
MOV AH,9
INT 21H
MAIN ENDP
END MAIN
```

F1=Help | Line:44 Col:32

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: F18

C:\>

C:\>

C:\>EDIT F18.ASM

C:\>MASM F18.ASM;

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0 Warning Errors

0 Severe Errors

C:\>LINK F18.OBJ;

Microsoft (R) Overlay Linker Version 3.60

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C:\>F18.EXE

ENTER YOUR NAME:ZEHRA

ZEHRA