

Lab 6

P1: Write a program to create a file and write text data into it using DOS interrupts

```

P1. MODEL SMALL
STACK 20
PRINT MACRO MSG
    MOV AH, 09H
    LEA DX, MSG
    INT 21H
ENDM

READ MACRO STR
    LEA DX, STR
    MOV AH, 0AH
    INT 21H
ENDM

.DATA
MSG1 DB 0DH, 0AH, 'Enter a filename: $'
MSG2 DB 0DH, 0AH, 'File is created $'
MSG3 DB 0DH, 0AH, 'Error in File creation $'
MSG4 DB 0DH, 0AH, 'Enter a Text: $'
MSG5 DB 0DH, 0AH, 'Error in File opening $'
MSG6 DB 0DH, 0AH, 'Error in writing $'
MSG7 DB 0DH, 0AH, 'Creating & writing successful $'

FNAME DB 80
       DB ?
       DB 80 DUP(0)

TEXT   DB 80
       DB ?
       DB 80 DUP(?)
  
```

```

SUCC2:
MOV BX, AX
MOV AH, 40H
MOV CH, 00H
MOV CL, TEXT+1
LEA DX, TEXT+2
INT 21H
JNC SUCC3
PRINT MSG6
MOV AH, 3EH
INT 21H
JMP EXIT

SUCC3:
PRINT MSG7
EXIT:
MOV AH, 4CH
INT 21H
END START
  
```

```

.CODE
START:
MOV AX, @DATA
MOV DS, AX
MOV ES, AX
PRINT MSG1
READ FNAME
LEA SI, FNAME+2
MOV CL, FNAME+1
MOV CH, 00
ADD SI, CX
MOV BYTE PTR [SI], 00
LEA DX, FNAME+2
MOV AH, 3CH
MOV CX, 0000H
INT 21H
JNC SUCC1
PRINT MSG3
JMP EXIT

SUCC1:
PRINT MSG2
PRINT MSG4
READ TEXT
MOV AH, 3DH
MOV AL, 02H
LEA DX, FNAME+2
INT 21H
JNC SUCC2
PRINT MSG5
JMP EXIT
  
```

C:\TASM>lab6_1.exe

```

Enter a filename:2019A7PS0020U
File is created:
Enter a text:My name is Dhruv
Creating and writing successful
  
```

File 2019A7PS0020U is created and "My name is Dhruv" written into file.

P2: Write a program to read system time and display at the center of the screen.

```

P2. MODEL SMALL
STACK 20
DATA
MS DB "PRESENT TIME IS: $"
CODE
START:
MOV AX, @DATA
MOV DS, AX
MOV AH, 00
MOV AL, 03H
INT 10H
MOV AH, 02
MOV BH, 0
MOV DH, 12
MOV DL, 30
INT 10H
LEA DX, MS
MOV AH, 09
INT 21H
MOV AH, 2CH
INT 21H
MOV AL, CH
CALL DISP
MOV DL, ':'
MOV AH, 02
INT 21H
MOV AL, CL
CALL DISP
MOV DL, ':'
MOV AH, 02
INT 21H
MOV AL, DH
CALL DISP
MOV AH, 02
INT 21H
MOV BH, 0
MOV DH, 24
MOV DL, 00
INT 10H
MOV AH, 4CH
INT 21H
DISP PROC NEAR
AAM
ADD AX, 3030H
MOV BX, AX
MOV DL, BH
MOV AH, 02
INT 21H
MOV DL, BL
MOV AH, 02
INT 21H
RET
ENDP
END START

```



Displays time

P3: Write a program to read system date and display in this format DD-MM-YEAR.

```

P3. .MODEL SMALL
STACK 20
PRINT MACRO MSG
MOV AH, 09H
MOV DX, OFFSET MSG
INT 21H
ENDM

DATA
DAY DB '?', '?', '-'
MONTH DB '?', '?', '-'
YEAR DB '?', '?', '?', '?'

CODE
START:
MOV AX, @DATA
MOV DS, AX
MOV ES, AX
MOV AH, 2AH
INT 21H
PUSH CX
PUSH DX
MOV AL, DL
LEA SI, DAY
MOV AH, 00H
CALL CONV
POP DX
MOV AL, DH
LEA SI, MONTH
MOV AH, 00H
CALL CONV
POP AX
LEA SI, YEAR
CALL CONV
PRINT DAY
MOV AH, 4CH
INT 21H
CONV PROC NEAR
MOV CX, 0000H
MOV BX, 000AH
NEXT:
MOV DX, 0000
DIV BX
ADD DL, 30H
PUSH DX
INC CX
CMP AX, 000AH
JGE NEXT
ADD AL, 30H
MOV [SI], AL
UP:
POP AX
INC SI
MOV [SI], AL
LOOP UP
RET
CONV ENDP
END START

```

```

C:\TASM>lab6_3.exe
15-03-2021
C:\TASM>

```

Displays the date

Ex: Write a program to copy content of one file to another

```

Ex .MODEL SMALL
    .STACK 20

PRINT MACRO MSG
    LEA DX, MSG
    MOV AH, 09H
    INT 21H
ENDM

.DATA
FILE1 DB 20 DUP(0)
FILE2 DB 20 DUP(0)
F1 DW ?
F2 DW ?
COUNT DW ?
BUFF DB 100, 0, 100 DUP('0')

MSG1 DB 0AH, 0DH, "File names read $"
MSG2 DB 0AH, 0DH, "File opened successfully"
MSG3 DB 0AH, 0DH, "File closed $"
MSG4 DB 0AH, 0DH, "File copied $"
MSG5 DB 0AH, 0DH, "Could not open file $"
MSG6 DB 0AH, 0DH, "Could not close file $"
MSG7 DB 0AH, 0DH, "Could not read file $"

```

```

OPEN1:
    MOV AH, 3DH
    MOV AL, 00
    LEA DX, FILE1
    INT 21H
    JNC OPEN-SUC
    PRINT MSG5
    JMP EXIT

OPEN-SUC:
    MOV FI, AX
    PRINT MSG2
    MOV AH, 3DH
    MOV AL, 01
    LEA DX, FILE2
    INT 21H
    JNC OPEN-SUC2
    PRINT MSG5
    JMP EXIT

OPEN-SUC2:
    MOV F2, AX
    PRINT MSG2

```

```

.CODE
START:
    MOV AX, @DATA
    MOV DS, AX
    MOV SI, 82H
    LEA DI, FILE1

READ1:
    MOV AL, [SI]
    CMP AL, " "
    JE NEXT
    MOV [DI], AL
    INC DI
    INC SI
    JMP READ1

NEXT: INC SI
    LEA DI, FILE2

READ2:
    MOV AL, [SI]
    CMP AL, 0DH
    JE READCOMP
    MOV [DI], AL
    LOOP READ2

READCOMP:
    PRINT MSG1

```

```

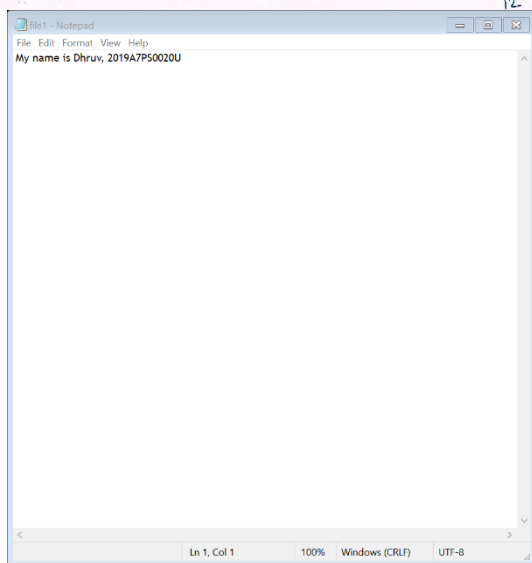
FREAD:
    MOV AH, 3FH
    MOV BX, FI
    MOV CX, 100
    LEA DX, BUFF
    INT 21H
    JC ERROR
    CMP AX, 0000
    JE CLOSE
    MOV COUNT, AX
    MOV AH, 40H
    MOV BX, F2
    MOV CX, COUNT
    LEA DX, BUFF
    INT 21H
    JMP FREAD

ERROR:
    PRINT MSG7
    JMP EXIT

CLOSE:
    MOV BX, FI
    MOV AH, 3FH
    INT 21H
    JC ERROR

```

```
MOV BX, F2
MOV AH, 3EH
INT 21H
JC CERROR
PRINT MSG3
JMP EXIT
CERROR:
PRINT MSG6
EXIT:
MOV AH, 4CH
INT 21H
END START
END
```



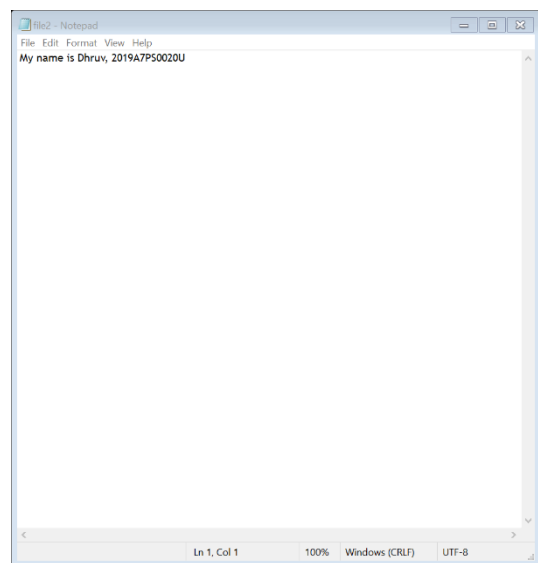
```
C:\TASM>LAB6_EX.EXE

File names read
Could not open file
C:\TASM>EDIT FILE1.TXT

C:\TASM>EDIT FILE2.TXT

C:\TASM>LAB6_EX FILE1.TXT FILE2.TXT

File names read
File opened successfully
File opened successfully
File closed
C:\TASM>
```



Copied contents of File1.txt to File2.txt