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BATCH: A1

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TITLE: Simulation of DOS COPY Command

CODE :

.model small

;macro for printing messages to the terminal

print macro m

lea dx,m

mov ah,09h

int 21h

endm

;data segement

.data

file1 db 20 dup(0) ;stores name of file1(file from which data is to be copied)

file2 db 20 dup(0) ;stores name of file2(new file to which data is to be copied)

fhandle1 dw ? ;stores handle of file1

fhandle2 dw ? ;stores handle of file2

count dw ?

buff db 100,0,100 dup('0') ;buffer for storing data temporarily

;message indicating status and errors

namesread db 10,13, "File names read$"

fileopen db 10,13, "File opened successfully$"

fileclose db 10,13, "File closed$"

filecopy db 10,13, "File copied successfully$"

filecreated db 10,13, "File created successfully$"

FileOpenError db 10,13, "Could not open file$"

FileCloseError db 10,13, "Could not close file$"

FileReadError db 10,13, "Could not read file$"

FileCreateError db 10,13, "Could not create file$"

;code segment

.code

start:

mov ax,@data

mov ds,ax

; reading file name (file1)

mov si,82h

lea di,file1

read1: mov al,es:[si]

cmp al," " ; compare with space

je next ; unless space character is found,continue saving characters

mov [di],al ; to file1

inc di

inc si

jmp read1 ;continue untill space character is found

next: inc si ;skip space character

lea di,file2

;reading name of second file

read2: mov al,es:[si]

cmp al,0dh ;jump on enter

je readcomplete

mov [di],al

inc di

inc si

jmp read2

readcomplete:

;file names successfully read upto this point

print namesread

; opening file 1 for reading content

open1: mov ah,3dh ;int 21 function for opening file

mov al,00 ;read only mode

lea dx,file1 ; pointer to file1

int 21h

jnc open\_success ;if file opened successfully,no carry is generated.jmp on success

print FileOpenError ;print error message and exit the program

jmp exit

open\_success: mov fhandle1,ax ;save file handle

print fileopen ;print success message

;creating file 2

mov ah,3ch ;int 21h function for creating new file

xor cx,cx

lea dx,file2

int 21h

jnc create\_success ;if file created,no carry is generated.jmp on success

print FileCreateError ;if file not created,print error message and exit

jmp exit

;if file created successfully

create\_success: print filecreated

;open new file in write mode

mov ah,3dh ;int 21h function for opening a file

mov al,01h ;write only mode

lea dx,file2 ;data to be written to file2

Int 21h

open\_success2 ;if file opened,jmp to label mentioned

print FileOpenError ; exit on error

jmp exit

open\_success2: mov fhandle2,ax ;save the file handle

print fileopen

;both files opened at this point in correct modes

;now we need to read data in buffer and write it to new file

;reading data from file 1

fread: mov ah,3fh ;int 21h function for reading data from a file

mov bx,fhandle1 ;read from file1

mov cx,100

lea dx,buff

int 21h

jc read\_error ; if read error occurs,carry is set. jmp on error

cmp ax,0000 ;if end of file reached

je close ;will close both files and exit

; now write the bytes to another file

mov count,ax ;number of bytes read

mov ah,40h ;int 21h function for writing to a file

mov bx,fhandle2 ;write in file2

mov cx,count ;number of bytes to write

lea dx,buff ;buffer from which data is written to file

int 21h

jmp fread ;continue reading and writing untill end of file1 is reached

read\_error: print FileReadError ;print read error message

jmp exit

; closing the files

close:

mov bx,fhandle1

mov ah,3eh ;int 21h function for closing the file

int 21h

jc close\_error ;jump if error closing the file

mov bx,fhandle2 ;close file2

mov ah,3eh ;function for closing the file

int 21h

jc close\_error

print fileclose

jmp exit ;exit the program

close\_error: print FilecloseError

jmp exit ;exit the program

exit:

mov ah,4ch ;exit from the program

int 21h

end start

end

**output :**

