KÜBRA YILDIZ

151180070

MICROPROCESSORS

ÖDEV-MİTTERM

.MODEL SMALL

.STACK

.DATA

MASSAGE1 DB 'Welcome to the Grid Program':'$'

MASSAGE2 DB CR,LF,'Please input the number of your horizontal lines? (0-99)':'$'

BUFFER1 DB 3,?,3 DUP(0)

MASSAGE3 DB CR,LF,'Please İnput the number of your vertical lines? (0-99)':'$'

BUFFER2 DB 3,?,3 DUP(0)

MASSAGE4 DB CR,LF,'Thank you :)Please wait patiently while I draw your grid 8 x8 .':'$'

MASSAGE5 DB CR,LF,'Now I am going to clean the screen and start drawing your Grid.':'$'

MASSAGE6 DB CR,LF,'Please press any key to start the drawing operation!':'$'

CR EQU 10D

LF EQU 08

ALINANr DW 0

ALINANc DW 0

w DW ?

h DW ?

.CODE

MAIN PROC FAR

MOV AX,@DATA

MOV DS,AX

CALL clear

MOV AH,09

MOV DX,OFFSET MASSAGE1

INT 21H

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

MOV AH,09

MOV DX,OFFSET MASSAGE2

INT 21H

MOV AH,0AH

MOV DX,OFFSET BUFFER2

INT 21H

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

MOV AH,09

MOV DX,OFFSET MASSAGE3

INT 21H

MOV AH,0AH

MOV DX,OFFSET BUFFER1

INT 21H

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

CALL M5EK ; kaca kac grid yazdırıran massage4 de düzenleme yapar

MOV AH,09

MOV DX,OFFSET MASSAGE4

INT 21H

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

MOV AH,09

MOV DX,OFFSET MASSAGE5

INT 21H

MOV dl, 10

MOV ah, 02h

INT 21h

MOV dl, 13

MOV ah, 02h

INT 21h

INT 21H

MOV AH,09

MOV DX,OFFSET MASSAGE6

INT 21H

MOV AH, 0

INT 16H

CALL clear ; clear screen

CALL roww

CALL columm

CALL kacc

CALL kacr

MOV AX,0012H ;Set mode 12h,

INT 10H

SUB CX,CX

cmp ALINANc,0

jz son1 ;eger alinan dikey değer 0 kullanicidan son 2 ye gidiyor cizim için girmiyor döngüye

MOV Cx,ALINANc

sub dx,dx

mov dx,20h

b1:

push cx

sub cx,cx

mov cx,20h

CALL cizcolum

add dx,h

pop cx

loop b1

son1:

cmp ALINANr,0

jz son2 ;eger alinan yatay değer 0 kullanicidan son 2 ye gidiyor cizim için girmiyor döngüye

SUB CX,CX

MOV ax,ALINANr

sub dx,dx

mov cx,20h

b2:

push ax

mov dx,20h

sub ax,ax

CALL cizrow

add cx,w

pop ax

dec ax

cmp ax,0h

jnz b2

son2:

MOV AH,4CH

INT 21H

MAIN ENDP

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;ekrana kaca kaclik grid cizecek bastiran fonksiyon

M5EK PROC

SUB CX,CX

mov bx, OFFSET BUFFER2

MOV CL,[BX+1]

PUSH CX

mov cl,[bx+2]

or CL,30h

MOV MASSAGE4+58 ,CL

POP CX

INC BX

DEC CX

CMP CL,0

JZ C

mov cl,[bx+2]

or CL,30h

MOV MASSAGE4+59 ,CL

INC BX

C:

SUB CX,CX

mov bx, OFFSET BUFFER1

MOV CL,[BX+1]

PUSH CX

mov cl,[bx+2]

or CL,30h

MOV MASSAGE4+61 ,CL

POP CX

INC BX

DEC CX

CMP CL,0

JZ D

mov cl,[bx+2]

or CL,30h

MOV MASSAGE4+62 ,CL

INC BX

D:

RET ; and return

M5EK ENDP

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;dikey cizme fonksiyonu

cizrow PROC

backk: mov ah,0ch

mov al,1

int 10h

inc dx

cmp dx,180h

JB backk

RET ; and return

cizrow ENDP

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;yatay çizme fonsiyonu

cizcolum PROC

back: mov ah,0ch

mov al,1

int 10h

inc cx

cmp cx,250h

JB back

RET ; and return

cizcolum ENDP

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;yatay cizgiler arasindaki bosluk

kacc PROC

SUB AX,AX

SUB DX,DX

MOV AX,160h

cmp ALINANc,1

Jz e

sub ALINANc,1

DIV ALINANc

MOV h,AX

add ALINANc,1

jmp next:

e:DIV ALINANc

MOV h,AX

next:

RET

kacc ENDP

;---------------------------------------

;dikey cizgiler arasindaki bosluk

kacr PROC

SUB AX,AX

SUB DX,DX

MOV AX,230H

cmp ALINANr,1

Jz f

sub ALINANr,1

DIV ALINANr

MOV w,AX

add ALINANr,1

jmp nextt:

f:DIV ALINANr

MOV w,AX

nextt:

RET

kacr ENDP

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;kac yatay cizgi kullanıcıdan alindi

roww PROC

MOV BX, OFFSET BUFFER1

SUB CX,CX

MOV CL,[BX]+1

MOV DI,CX

SUB DX,DX

MOV DX,10D

AGAIN: SUB AX,AX

MOV AL,[BX]+2

AND AX,0F0FH

CMP CX,1H

JLE a

MUL DL

a:

ADD ALINANr, AX

INC BX

LOOP AGAIN

RET

roww ENDP

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;kac dikey cizgi kullanicidan alindi

columm PROC

MOV BX, OFFSET BUFFER2

SUB CX,CX

MOV CL,[BX]+1

MOV DI,CX

;MOV BYTE PTR[BX+DI],20H

SUB DX,DX

MOV DX,10D

AGAINn: SUB AX,AX

MOV AL,[BX]+2

AND AX,0F0FH

CMP CX,1H

JLE aa

MUL DL

aa:

ADD ALINANc,AX

INC BX

LOOP AGAINn

RET

columm ENDP

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;ekran temizleme fonksiyonu

clear PROC

MOV AX,0600H

MOV BH,07

MOV CX,0000

MOV DX,184FH

INT 10H

RET

clear ENDP

END MAIN



