# chapter 11

## 实验11

### code

assume cs:code,ds:data  
  
data segment  
 db "Beginner's All-purpose Symbolic Instruction Code.",0  
data ends  
  
  
code segment  
start:  
 mov ax,data  
 mov ds,ax  
 mov si,0  
 mov di,160\*10+2\*5  
  
 call show\_letter  
 call letterc  
 add di,160  
 call show\_letter  
  
 mov ax,4c00h  
 int 21h  
  
 letterc:  
 push ax  
 push bx  
 push cx  
 push dx  
 push si  
 push di  
 push ds  
 push es  
  
 mov si,0  
  
 letterc\_bg:  
 mov al,ds:[si]  
  
 cmp al,0  
 je letterc\_end  
  
 cmp al,'a'  
 jb next  
 cmp al,'z'  
 ja next  
 ;and al,11011111b  
 sub al,20h  
 mov ds:[si],al  
  
 next:  
 inc si  
 jmp letterc\_bg  
 letterc\_end:  
 pop es  
 pop ds  
 pop di  
 pop si  
 pop dx  
 pop cx  
 pop bx  
 pop ax  
 ret  
  
 show\_letter:  
 push ax  
 push bx  
 push cx  
 push dx  
 push si  
 push di  
 push ds  
 push es  
 show\_letter\_bg:  
 mov ax,0b800h  
 mov es,ax  
 ; mov di,160\*10+2\*5  
  
 mov cx,0  
  
 show:  
 mov al,ds:[si]  
  
 mov cl,al  
 jcxz show\_letter\_end  
   
 mov ah,2  
 mov es:[di],ax  
 inc si  
 inc di  
 inc di  
 jmp show  
  
 show\_letter\_end:  
 pop es  
 pop ds  
 pop di  
 pop si  
 pop dx  
 pop cx  
 pop bx  
 pop ax  
 ret  
code ends  
end start

### Screenshot

