.MODEL SMALL   
.DATA   
 MS DB "THE ROW NO. IS"   
 ROW DB?   
 DB "...THE COL NO. IS..."   
 COL DB?"$"   
 MSG DB 'KEY CODE IS: $'   
 TABLE DB 'ABCDEFGHIJKLM'   
 KEYCODE DB?   
 RANGE DB?   
 TEMP DB?   
 PA EQU 24A0H   
 PB EQU 24A1H   
 PC EQU 24A2H   
 CR EQU 24A3H   
.CODE   
 MOV AX,@DATA   
 MOV DS, AX   
 MOV DX, CR   
 MOV AL, 90H   
 OUT DX, AL   
 AGAIN: MOV DX, PC   
 MOV AL, 01H   
 OUT DX, AL   
 MOV BL, 31H   
 MOV RANGE, 00H   
 MOV DX, PA   
 IN AL, DX   
 CMP AL, 00   
 JNE KP   
 MOV DX, PC   
 MOV AL, 02H   
 OUT DX, AL   
 MOV BL, 32H   
 MOV RANGE, 08H   
 MOV DX, PA   
 IN AL, DX   
 CMP AL, 00   
 JNE KP   
 MOV DX, PC   
 MOV AL, 04H   
 OUT DX, AL   
 MOV BL, 33H   
 MOV RANGE, 10H   
 MOV DX, PA   
 IN AL, DX   
 CMP AL, 00   
 JNE KP   
 JMP AGAIN   
 KP: MOV TEMP, AL   
 MOV ROW, BL   
 MOV BH, 31H   
 L1: ROR AL, 1   
 JC CF   
 INC BH   
 JMP L1   
 CF: MOV COL, BH   
 LEA DX, MS   
 MOV AH, 09   
 INT 21H   
 LEA DX, MSG   
 MOV AH, 09   
 INT 21H   
 L2: ROR TEMP, 1   
 JC CF2   
 INC RANGE   
 JMP L2   
 CF2: MOV AL, RANGE   
 LEA BX, TABLE   
 XLAT   
 MOV KEYCODE, AL   
 SUB KEYCODE, 41H   
 MOV AH, 00H   
 MOV AL, KEYCODE   
 AAM   
 MOV BX, AX   
 ADD BX, 3030H   
 MOV DL, BH   
 MOV AH, 2 I  
 NT 21H   
 MOV DL, BL   
 MOV AH, 2   
 INT 21H   
 MOV AH, 4CH   
 INT 21H   
 END