**;Write a program that a string from the user and display each word in new line diagonally from upper left towards bottom right in a clear screen. If the string is “Programming in Assembly Language is Fun”, it shoud be displayed as**

**;Programming**

**; in**

**; Assembly**

**; Language**

**; is**

**; Fun**

**.MODEL SMALL**

**.STACK 64**

**.DATA**

**MSG DB "ENTER A STRING: ", 0AH,0DH,"$"**

**STR DB 50, ? , 50 DUP(0)**

**.CODE**

**MOV AX,@DATA;**

**MOV DS,AX**

**MOV AH,09H**

**LEA DX,MSG**

**INT 21H**

**;MAIN PROGRAM**

**MOV CX,00H**

**MOV DX,00H**

**MOV AH,0AH**

**LEA DX,STR**

**INT 21H**

**MOV AX,0003H**

**INT 10H**

**LEA DI,STR**

**AGAIN: MOV AH,02H**

**MOV DL, [DI+2]**

**CMP DL, 20H**

**JE T2**

**T1: MOV DL,[DI+2]**

**INT 21H**

**INC CL**

**JMP T3**

**T2: MOV DL, 0AH**

**INT 21H**

**INC DH**

**MOV BH,00H**

**MOV DL,CL**

**INT 10H**

**T3: INC DI**

**CMP [DI+2],0DH**

**JNE AGAIN**

**MOV AH,4CH**

**INT 21H**

**END**