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**COURSE: COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE**

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**SECTION: IV-B**

**ASSEMBLY PROJECT**

**(table generator)**

**SOURCE CODE**

**.model small**

**.stack 100h**

**.data**

**intro db 9,9,"\*\*\*\*\*\*\*MULTIPLICATION TABLE GENERATOR\*\*\*\*\*\*\*$"**

**msg db 10,"ENTER A NUMBER: $"**

**tab db 9**

**num db ?**

**num1 db ?**

**mul1 db 42**

**equal1 db 61**

**array db '01','02','03','04','05','06','07','08','09','10','11','12'**

**errormsg db 10,"THE INPUT IS NOT A NUMBER$"**

**.code**

**start:**

**mov ah,09H**

**mov bl,9**

**mov cx,1000**

**int 10h**

**xor cx,cx**

**mov ax,@data**

**mov ds,ax**

**mov si,offset array**

**mov ah,09**

**lea dx,intro**

**int 21h**

**lea dx,msg**

**int 21h**

**mov ah,01**

**int 21h**

**mov num,al**

**mov cl,10**

**mov bl,'0'**

**testinput:**

**cmp al,bl**

**je nextt**

**inc bl**

**loop testinput**

**jne error1**

**next:**

**sub al,48**

**mov num1,al**

**mov cl,1**

**mov al,0**

**mov bl,1**

**l1:**

**mov ah,02**

**mov dl,10**

**int 21h**

**mov ah,02**

**mov dl,tab**

**int 21h**

**int 21h**

**int 21h**

**int 21h**

**int 21h**

**mov dl,num**

**int 21h**

**mov dl,mul1**

**int 21h**

**mov dx,[si]**

**add si,2**

**mov ah,02**

**int 21h**

**mov dl,dh**

**int 21h**

**mov dl,equal1**

**int 21h**

**mov al,num1**

**MUL cl**

**AAM**

**ADD AH,30H**

**ADD AL,30H**

**MOV BX,AX**

**mov ah,02**

**mov dl,bh**

**int 21h**

**mov dl,bl**

**int 21h**

**inc cl**

**cmp cl,13**

**jne l1**

**jmp exit**

**error1:**

**mov ah,09**

**lea dx,errormsg**

**int 21h**

**exit:**

**mov ah,4ch**

**int 21h**

**end start**

**SCREENSHOT**

