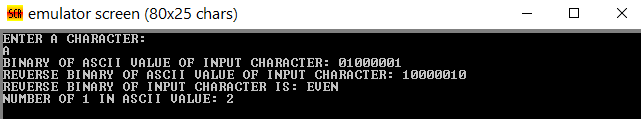
**Problem statement:** Enter a character.Print it’s ASCII code in binary,print It’s reverse binary,check if It’s reverse is even,print number of 1 in binary value.

**Code:**

|  |  |  |
| --- | --- | --- |
| .MODEL **SMALL**  .**STACK** 100H  **.DATA**  MSG1 **DB** 'ENTER A CHARACTER:', 0DH, 0AH, '$'  MSG\_BIN **DB** 0DH,0AH,'BINARY OF ASCII VALUE OF INPUT CHARACTER: $'  MSG\_REV **DB** 0DH,0AH,'REVERSE BINARY OF ASCII VALUE OF INPUT CHARACTER: $'  ODD **DB** 0DH, 0AH,'REVERSE BINARY OF INPUT CHARACTER IS: ODD$'  EVEN **DB** 0DH, 0AH,'REVERSE BINARY OF INPUT CHARACTER IS: EVEN$'  MSG\_CNT1 **DB** 0DH,0AH,'NUMBER OF 1 IN ASCII VALUE: $'  CNT1 **DB** ?  .**CODE**  MAIN PROC  *; initialize DS*  **MOV** **AX**, @**DATA**  **MOV** **DS**, **AX**  **MOV** **AH**, 9  **LEA** **DX**,MSG1*;INPUT PROMT*  **INT** 21H    **MOV** **AH**, 1  **INT** 21H *;READ CHAR IN AL*  **MOV** **BL**,**AL**  **MOV** **BH**,**AL**  **MOV** CNT1,'0'*;INITIALIZE*  *;DISPALY BINARY*  **MOV** **AH**,9  **LEA** **DX**,MSG\_BIN  **INT** 21H  **MOV** **AH**,2  **MOV** **CX**,8 | BINARY\_LOOP:  **ROL** **BL**,1  *;IF CF==1*  **JC** IF    **MOV** **DL**,'0'  **JNC** ENDIF:  IF:  **MOV** **DL**,'1'  ENDIF:  **INT** 21H  **LOOP** BINARY\_LOOP  *;DISPALY BINARY REVERSE*  **MOV** **AH**,9  **LEA** **DX**,MSG\_REV  **INT** 21H    **MOV** **AH**,2  **MOV** **CX**,8  REV\_LOOP:  **ROR** **BH**,1  *;IF CF==1*  **JC** IFR    **MOV** **DL**,'0'  **JNC** ENDIFR:    IFR:  **MOV** **DL**,'1'  **ADD** CNT1,1*;INCREASE NUMBER OF ONE IN ASCII VALUE*  ENDIFR:  **INT** 21H  **LOOP** REV\_LOOP | *;EVEN/ODD?*  **MOV** **AH**,9  **ROL** **AL**,1*;MSB OF MAIN NUM= LSB OF REV-> IF 0: rev is EVEN,ELSE:ODD*  **JNC** D\_EVEN  **LEA** **DX**,ODD  **JC** END\_C  D\_EVEN:  **LEA** **DX**,EVEN  END\_C:  **INT** 21H    *;DISPLAY NUMBER OF ONE IN ASCII VALUE*  **MOV** **AH**,9  **LEA** **DX**,MSG\_CNT1  **INT** 21H  **MOV** **AH**,2  **MOV** **DL**,CNT1  **INT** 21H    EXIT:  **MOV** **AH**, 4CH  **INT** 21H  MAIN ENDP  END MAIN |

**Output:**

****