Faculty of Engineering, Science and Technology (FEST)
Department of Computing and Technology
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Depeartment of Computing
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Computer Organization & Assembly Language (0+1)

Semester Project Report
Fall 2021

("Character Count")

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Table of Contents

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ABSTRACT :

To Understand Input Environment of a User and Give the Exact Count Whatever Entered be the user.

Introduction :

The Program Focuses on The Characters In simple means anything entered by the user it just Counts And give its ascii in return(As Output).

Problem Statement :

We don't know the exact length of how it is going in the program flow whatever entered by the user in the program or how much memory/processes or tasks Operated by the program.

Methodology :

We are using specific Registers to Work on Character count for example we may require a register with user input then we apply a loop depend on the length of words until termination defined button hitted by the user from keyboard when termination done it will give control to the jmp function here one specific jmp required which is je. Then we define a label when jmp condition works then operation of count under the label performes by the inc function and gives the result into ascii defined as initially from 01.

Screenshots :

```
001  org 100h
002  .model small
003  .data
004
005
006
007  F db ' * * **** * **** **** * * **** $'
008  G db ' * * * ** * * * * * * * ** $'
009  H db ' * * * **** **** **** **** * * **** $'
010  D db ' PROJECT: CHARACTER COUNT$'
011  A db 10,13, 'Enter Characters(Alphabets or Numbers) : $'
012  C db 10,13, 'your number of characters are : $'
013  E db ' Enter First Capital letter of your name to Count$'
014  .code
015
016
017
018  main proc
019
020
021
022
023  mov dx,offset F
024  mov ah,09h
025  int 21h
026
027
028
029
030  mov dx,offset G
031  mov ah,09h
032  int 21h
```
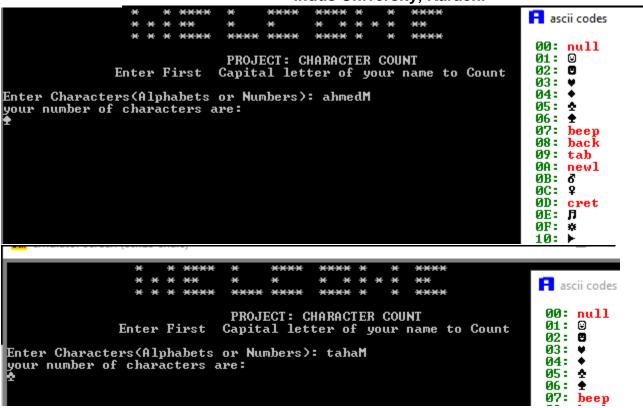
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```
032   int   21h
033
034
035
036   mov  dx,offset  H
037   mov  ah,09h
038   int  21h
039
040   mov  dx,10
041   mov  ah,2
042   int  21h
043   mov  dx,13
044   mov  ah,2
045   int  21h
046
047
048
049
050
051   mov  dx,offset  D
052   mov  ah,09h
053   int  21h
054
055   mov  dx,10
056   mov  ah,2
057   int  21h
058   mov  dx,13
059   mov  ah,2
060   int  21h
061
062
063
065   mov  dx,offset  E
066   mov  ah,09h
067   int  21h
068
069
070
071   mov  dx,10
072   mov  ah,2
073   int  21h
074
075
076
077   lea  dx,A
078   mov  ah,09h
079   int  21h
080
081
082
083
084   mov  bl,00 ;counting starts from ascii 00
085
086
087
088   k:
089   mov  ah,01
090   int  21h
091   inc  bl
092   cmp  al,4dh
093   je  b
094
095
096
```

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```
097  loop k
098
099
100
101
102  b:
103
104
105
106  mov dx, offset C
107  mov ah,09h
108  int 21h
109
110
111
112  mov dx,10
113  mov ah,2
114  int 21h
115  mov dx,13
116  mov ah,2
117  int 21h
118
119
120
121  mov dl,bl
122
123
124
125  mov ah,02h
126  int 21h
127
128
```

```
121  mov dl,bl
122
123
124
125  mov ah,02h
126  int 21h
127
128
129
130  mov ah,4ch
131  int 21h
132
133
134
135
136
137  ret
```

Testing :

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Conclusion :

With the use of this program the user may have advantage to know the exact amount of length inputed or user defined in the program also wherever the count program used by the user at wherever he or she wants to use in the software.

Future :

It will be useful where a user wants to know the realtime evaluation in the form of character count of a program or any project or software to assess further his or her working in their project.

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Reference:

We have complete this project only by sir mushtahir guidance and with the help of sir's given cheat sheet.