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**Project Name: Online Quiz**

**Subject: Assembly Language**

**Introduction to Assembly Language:**

This is a brief introduction to assembly language. Assembly language is the most basic programming language available for any processor. With assembly language, a programmer works only with operations implemented directly on the physical CPU. Assembly language lacks high-level conveniences such as variables and functions, and it is not portable between various families of processors. Nevertheless, assembly language is the most powerful computer programming language available, and it gives programmers the insight required to write effective code in high-level languages. Learning assembly language is well worth the time and effort of every serious programmer.

**Source Code:**

.model small

.stack 100h

.data

msg0 db 0ah,0dh,' $'

msg02 db 0ah,0dh, ' $'

msg1 db ' .....welcome to your first quiz.....$'

space1 db 0ah,0dh,' ','$'

space2 db 0ah,0dh, ' ','$'

msg5 db 'press enter to start the quiz : $'

msg6 db 'right answer....$'

msg7 db 'wrong answer....$'

msg8 db 'you have successfully completed your quiz.$'

msg9 db 'your total obtained point is : $'

msg10 db 'press 1 to re-attempt quiz or 0 to exit.$'

msg11 db ' \*\*\*thank you.! \*\*\*$'

q1 db '1. 2+3=?$'

qa1 db ' a) 5 b) 6 c) 7$'

q2 db '2. 5+6=?$'

qa2 db ' a) 10 b) 11 c) 12$'

q3 db '3. 15-12=?$'

qa3 db ' a) 5 b) 1 c) 3$'

q4 db '4. 30/15=?$'

qa4 db ' a) 5 b) 1 c) 2$'

q5 db '5. 25-5=?$'

qa5 db ' a) 20 b) 30 c) 15$'

.code

main proc

mov ax,@data

mov ds,ax

lea dx,msg0

mov ah,9

int 21h

lea dx,msg02

mov ah,9

int 21h

lea dx,msg1

mov ah,9

int 21h

lea dx,space1

mov ah,9

int 21h

lea dx,space2

mov ah,9

int 21h

start:

mov bl, 0

call nl

lea dx,msg5

mov ah,9

int 21h

mov ah, 1

int 21h

cmp al, 0dh

je qsn1

jne start

qsn1:

call nl

lea dx,q1

mov ah,9

int 21h

call nl

lea dx,qa1

mov ah,9

int 21h

call nl

mov ah, 1

int 21h

cmp al, 'a'

je qsn2

jne qsnw2

qsn2:

call nl

lea dx,msg6

mov ah,9

int 21h

inc bl

call nl

call qn2

call input

cmp al, 'b'

je qsn3

jne qsnw3

qsnw2:

call nl

lea dx,msg7

mov ah,9

int 21h

dec bl

call nl

call qn2

call input

cmp al, 'b'

je qsn3

jne qsnw3

qsn3:

call nl

lea dx,msg6

mov ah,9

int 21h

inc bl

call nl

call qn3

call input

cmp al, 'c'

je qsn4

jne qsnw4

qsnw3:

call nl

lea dx,msg7

mov ah,9

int 21h

dec bl

call nl

call qn3

call input

cmp al, 'c'

je qsn4

jne qsnw4

qsn4:

call nl

lea dx,msg6

mov ah,9

int 21h

inc bl

call nl

call qn4

call input

cmp al, 'c'

je qsn5

jne qsnw5

qsnw4:

call nl

lea dx,msg7

mov ah,9

int 21h

dec bl

call nl

call qn4

call input

cmp al, 'c'

je qsn5

jne qsnw5

qsn5:

call nl

lea dx,msg6

mov ah,9

int 21h

inc bl

call nl

call qn5

call input

cmp al, 'a'

je exit

jne exitw

qsnw5:

call nl

lea dx,msg7

mov ah,9

int 21h

dec bl

call nl

call qn5

call input

cmp al, 'a'

je exit

jne exitw

exit:

call nl

lea dx,msg6

mov ah,9

int 21h

inc bl

call nl

call nl

lea dx,msg8

mov ah,9

int 21h

call nl

lea dx,msg9

mov ah,9

int 21h

add bl, 48

cmp bl,57

jg ten

mov ah, 2

mov dl, bl

int 21h

jmp exit1

exitw:

call nl

lea dx,msg7

mov ah,9

int 21h

dec bl

call nl

call nl

lea dx,msg8

mov ah,9

int 21h

call nl

call nl

lea dx,msg9

mov ah,9

int 21h

mov ah,2

mov dl, bl

int 21h

jmp exit1

ten:

mov ah,2

mov dl,"1"

int 21h

mov dl,"0"

int 21h

jmp exit1

nl:

mov ah,2

mov dl, 0ah

int 21h

mov dl, 0dh

int 21h

ret

qn2:

lea dx,q2

mov ah,9

int 21h

call nl

lea dx,qa2

mov ah,9

int 21h

ret

qn3:

lea dx,q3

mov ah,9

int 21h

call nl

lea dx,qa3

mov ah,9

int 21h

ret

qn4:

lea dx,q4

mov ah,9

int 21h

call nl

lea dx,qa4

mov ah,9

int 21h

ret

qn5:

lea dx,q5

mov ah,9

int 21h

call nl

lea dx,qa5

mov ah,9

int 21h

ret

input:

call nl

mov ah, 1

int 21h

ret

exit1:

call nl

call nl

lea dx,msg11

mov ah,9

int 21h

mov ah, 4ch

int 21h

main endp

end main

**Output:**

