QUIZ SYSTEM

Subject: Computer Organization & Assembly Language

GROUP MEMBERS: Tayyub Naveed (19P-0108) Umar Aslam (19P-0103) Zohaib Khan (19P-0095)

Objective:

The main objective of this project is to design a multiplechoice question paper using the assembly language.

Project Explanation:

- 1. The Quiz system is a game concept.
- 2. In this game, we have set 10 questions.
- 3. One mark will be increased for each right answer, and one mark will be increased and for each wrong answer, 1 mark will be decreased from the total points for each wrong answer.
- 4. At the end of the quiz, the total marks will be shown to the user.

Now, we will discuss some important parts of our project code.

```
msg db ' WELECOME TO YOUR FIRST QUIZ',0x0d, 0x0a, '$'

MSG2 DB 'Rules :',0x0d, 0x0a, '$'

MSG3 DB '*. For Every Correct answer you will get 1 point.',0x0d, 0x0a,'$'

MSG4 DB '*. For Every Wrong answer 1 Point will cut from your total point.',0x0d, 0x0a,'$'

MSG5 DB 'Press Enter to start the quiz :',0x0d, 0x0a,' $'

MSG6 DB 0x0a,'Right Answer....',0x0a,'$'

MSG7 DB 0x0a,'Wrong Answer....',0x0a,'$'

MSG8 DB 'You have successfully completed your quiz.',0x0d,0x0a,'$'

MSG9 DB 'Your Total obtained point is $'

MSG10 DB 'Press 1 to Re-attempt quiz or 0 to Exit.$'

MSG11 DB 0x0a,' **Thank you.! ***
```

```
Q1 DB '1. 2+3=?',0x0d, 0x0a,'$'
QA1 DB ' a) 5
                b) 6 c) 7',0x0d,0x0a,'$'
                                                     we
Q2 DB '2. 5+6=?',0x0d, 0x0a,'$'
QA2 DB ' a) 10 b) 11
                          c) 12',0x0d,0x0a,'$'
Q3 DB '3. 15-12=?',0x0d, 0x0a,'$'
QA3 DB 'a) 5 b) 1
                       c) 3',0x0d,0x0a,'$'
Q4 DB '4. 3*6=?',0x0d, 0x0a,'$'
QA4 DB ' a) 10 b) 18
                           c) 12',0x0d,0x0a,'$'
Q5 DB '5. 6/3=?',0x0d, 0x0a,'$'
QA5 DB 'a) 2
                b) 1
                       c) 12',0x0d,0x0a,'$'
Q6 DB '6. 8-8=?',0x0d, 0x0a,'$'
QA6 DB ' a) -1
                b) -2 c) 0',0x0d,0x0a,'$'
Q7 DB '7. 3*12=?',0x0d, 0x0a,'$'
                          c) 38',0x0d,0x0a,'$'
QA7 DB '
         a) 33 b) 36
Q8 DB '8. 9*9=?',0x0d, 0x0a,'$'
                b) 91
QA8 DB ' a) 72
                           c) 81',0x0d,0x0a,'$'
Q9 DB '9. 11+13=?',0x0d, 0x0a,'$'
QA9 DB ' a) 24 b) 26 c) 19',0x0d,0x0a,'$'
Q10 DB '10. 56/8=?',0x0d, 0x0a,'$'
                          c) 6',0x0d,0x0a,'$'
QA10 DB '
           a) 7
                  b) 9
msgg DB '10. $'
```

have set 11 variables from msg 1 to msg11 for printing our desired strings, and we have used Q1-Q10 and QA1-QA10 for printing our desired questions and their options.

```
Correct:
   add bx,1
   mov dx,MSG6
   mov ah,9
   int 0x21

ret

Wrong:
   add cx,1
   mov dx,MSG7
   mov ah,9
   int 0x21

ret
```

First, we have two Functions named "Correct" and "Wrong". If the answer is correct, the "Correct" function will be called and it will add one point and print the "MSG6" message, which is "Right Answer...". If the answer is wrong, the "Wrong" function will be called, and it will reduce one point in cx and print the "MSG7" message.

```
main:

mov cx,0
mov dx, msq
mov dx,Q1
mov ah,9
int 0x21
mov dx,QA1
int 0x21
mov ah,1
int 0x21
cmp al,'a'
jnz skip
call Correct
jmp alskip
skip:
call Wrong
```

Now we will go to question 1 level and 1 input will be taken and it will be compared to the correct answer. If it is equal then it will go to the "correct" function, otherwise, it will reach the "skip" level and the "wrong" function will be called.

We do the same process till Question 10.

```
mov dx,bx
add dx,48
mov ah,2
int 0x21
```

In the exit level, we have added 48 with dx to convert our ASCII to decimal. So, that the user may easily understand the obtained marks.

OUTPUT:

```
3000 cycles, Frameskip O, Program:
                                                                     OUT -
       DOSBox 0.74-3, Cpu speed:
C:\\nasm bello asm -o out com
       DOSBox 0.74-3, Cpu speed:
                                  3000 cycles, Frameskip 0, Program:
                                                                     OUT -
     DOSBox 0.74-3, Cpu speed:
                              3000 cycles, Frameskip 0, Program: DOSBOX –
Right Answer....
6.8-8=?
  a) -1
            b) -2
                     c) 0
Wrong Answer....
7. 3*12=?
  a) 33
           b) 36
                     c) 38
Right Answer....
8. 9*9=?
  a) 72
           b) 91
                     c) 81
Right Answer....
9. 11+13=?
  a) 24
           b) 26
                     c) 19
Right Answer....
10. 56/8=?
  a) 7
          b) 9
                   c) 6
Right Answer....
You have successfully completed your quiz.
Your Total obtained point is 8
                    ***Thank you.! ***
C:\>_
```