

An-Najah N. University Faculty of Engineering & Information Technology Department of Computer Science Computer Organization & Assembly Language Course Project

Deadline: 27-Dec-2022 Instructor: Dr. Ahmed Awad

Problem

Consider a paragraph of 100 characters at maximum. We need to extract the numeric values from this paragraph (between 0-9) that are written as text and then perform the needed arithmetic operation between them. The operation should be indicated in the text which could be (add, multiply, divide). The result of the operation should be printed in the center of the screen with the ability to move it to the left, right, up, and down according to the movement of arrows.

To clarify things, consider the following input paragraph: We have the numbers **one**, **two**, and **three**, please do **add** operation on them.

The output of the program should be as following:

⇒ 1+2+3=6

This result should be printed in the center of the screen. Now if the user clicks one of the arrows from the keyboard, the result should be moved accordingly.

The following summarizes the needed tasks:

- 1. Ask the user to input a paragraph of 100 characters at maximum. If the number of inputted characters exceeds 100, an error message should be generated.
- 2. Extract the numbers from the text and convert them into numeric values. Only numbers between 0-9 should be considered.
- 3. Extract the needed operation from the text.
- 4. Place the result in the center.
- 5. Ask the user to press on an arrow.
- 6. Move the result in the proper direction in accordance with the keystrokes.

Submission

- 1. Submit your Assembly code (.asm) via Moodle within the deadline stated above.
- 3. You can work as teams in this project. Each team is up to 3 students.
- 4. After submission, you are required to discuss your project.
- 5. This project weighs 25% from your final mark in this course.
- 6. Any submission without discussing your work will not be evaluated.
- 7. All team members are responsible for understanding each part of your code.

Good Luck