One submission per group (2 students) **SE185: Problem Solving in Software Engineering**

**Quiz # 6 (100 points)**

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Answer the following questions and make a pdf file that includes the **source code, sample inputs, and outputs**. You must submit the **pdf file and all of the .c files** on Canvas for full credit. Do not forget to add your group partner name on the pdf file and the source codes.

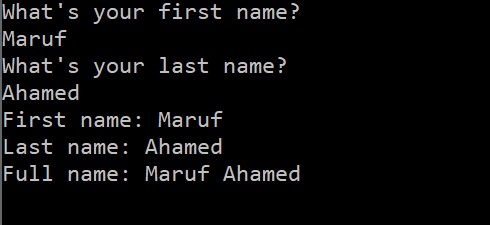
**1. (100 points)** Write a complete C code that scans a **first** and **last name** into **two separate char arrays** whose memory is **statically allocated**. Your program must put the first and last names together, separated by a space, into a single string (not the char arrays used for the first/last names). Your program must **use the strlen() function** to **dynamically allocate memory** to a **char pointer** which will serve as your final string.

Use a loop to iterate through your final string (char pointer) and count only the number of letters (no spaces, null characters, or other symbols). **Use pointer notation** instead of array notation. Your program must use **malloc() and free().**

Begin by creating these variables **(use these variable names)**:

char first\_name[50], last\_name[50]; char \*full\_name = NULL; int num\_letters = 0;

**Inputs and outputs format:**



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Output:

Text

Description automatically generated

Code:

Text

Description automatically generated