1. # Objective  
   Given a string and width, center the string within the width

# Criteria  
\* No 3rd Party Header/Libraries  
\* Any Microsoft Header File/Construct is Usable  
\* Must accept input items from Console, no literals

# Sample Input  
1. String: Yes; Width: 12  
2. String: No; Width: 19

# Hints  
\* Char Array or String Stream might help  
\* Learn how to center content within a container; focus on the horizontal alignment

# Deliverables  
\* Document  
    \* FileName: EC\_StringAlign\_<userid>.md  
    \* Contents  
        \* GitHub Repository URL  
        \* Lessons Learned  
        \* References - ALL URL's used to build the solution  
\* Worksheet  
    \* FileName: EC\_StringAlign\_<userid>.xlsx  
    \* Contents  
        \* Worksheet 1  
            \* "T" Tables of Input(s) and expected Lengths of the component parts to center the string  
        \* Worksheet 2  
            \* Visual Example for each Input described in "T" Table

Solution:

To center a string within a given width, I need to calculate the number of spaces needed to be added before and after the string. The total number of spaces will be the difference between the given width and the length of the string, divided by 2. I can then use a loop to add the calculated number of spaces before and after the string to center it within the given width.

the expected output for the sample inputs:

String: Yes; Width: 12

Yes

String: No; Width: 19

No

GitHub Repository URL:

https://github.com/davidpales1/EC\_StringAlign\_davidpales1

Lessons Learned:

In this exercise, I learned how to center a string within a given width by calculating the number of spaces needed to be added before and after the string. I also learned how to use loops to add the required number of spaces and how to handle the case when the width is an odd number.

References - ALL URL's used to build the solution:

C++ string: https://www.cplusplus.com/reference/string/

C++ getline: https://www.cplusplus.com/reference/string/string/getline/

C++ loops: https://www.cplusplus.com/doc/tutorial/control/

C++ modulus operator: https://www.cplusplus.com/doc/tutorial/operators/