Assignment 4

- Due Feb 26 by 11:59pm
- Points 100
- Submitting a file upload
- Attempts 1
- Allowed Attempts 1
- Available Feb 22 at 8pm - Feb 27 at 11:59pm

This assignment was locked Feb 27 at 11:59pm.

1. Write a C program that calculates the square root of a given positive integer n using the sqrt() function from the math library. Make sure to include the appropriate headers and handle the input.

2. Write a C program that takes a user-input string and counts the number of vowels (both uppercase and lowercase) in it. Display the count of each vowel (A, E, I, O, U). Hint: the counting is not case sensitive i.e. a==A.

3. What will be the output of the program below?

```
#include <stdio.h>
#include <string.h>

int main() {
    char str1[20] = "Programming";
    char str2[] = " is fun!";

      int remaining_space = sizeof(str1) - strlen(str1) - 1; //

    if (remaining_space >= strlen(str2)) {
          int start_index = strlen(str1);

       for (int i = 0; i < strlen(str2); i++) {
          str1[start_index + i] = str2[i];
       }
```

```
        str1[start_index + strlen(str2)] = '\0';
        printf("%s\n", str1);
    } else {
        printf("Not enough space to concatenate.\n");
    }
    return 0;
}
```