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CSCE Assignment 3 Report

```
C:\Users\Ali\Documents\Visual Studio 2022\CSCE 1011 Assignment 3.1\x64\Debug\CSCE
Enter the size: 5_
```

- The Program starts by asking the user for the size of the vector and stores it in vector size

```
C:\Users\Ali\Documents\Visual Studio 2022\CSCE 1011 Assignment
Enter the size: 5
Enter Value #0: 1
Enter Value #1: 1
Enter Value #2: 1
Enter Value #3: 4
Enter Value #4: 5
Enter First #:
```

- Next, the program loops as many times as i< the vector's size and stores the input in the vector using a vessel variable (input)
- Then the program asks the user to input the number to search for in the vector (first) and the number that it will place after it (second)

```
Microsoft Visual Studio Debug Console
Enter the size: 5
Enter Value #0: 1
Enter Value #1: 1
Enter Value #2: 1
Enter Value #3: 4
Enter Value #4: 5
Enter First #: 1
Enter Second #: 2
val: 1
num of occ: 3
val: 2
num of occ: 3
val: 4
num of occ: 1
val: 5
num of occ: 1
```

- The numbers first, second, and the vector (vector passed by reference) are then passed to the InsertAfter function.
- The function loops through the vector, and if the first number is found, it inserts the second number after using the standard [.insert()] function.
- After the vector has been changed, we pass it to the function List and equate that to the main object created.
- The list takes all repeated numbers and piles them into num of occ and prints the rest normally without repeating any numbers

Linked List Reference:

https://www.codesdope.com/blog/article/c-linked-lists-in-c-singly-linked-list/#:~:text=The%20implementation%20of%20a%20linked,which%20are%20connected%20in%20nature.