

Assignment 3

```
Microsoft Visual Studio Debug Console
Enter element number ( 6 ):
3
Enter element number ( 7 ):
0
Created a linked list using the vector.
Now printing the linked list
The element is: 0
With occurrence: 1
The element is: 3
With occurrence: 1
The element is: 4
With occurrence: 3
The element is: 7
With occurrence: 2

And their sum is: 29
Now removing an element 7
Now printing the linked list
The element is: 0
With occurrence: 1
The element is: 3
With occurrence: 1
The element is: 4
With occurrence: 3

And their sum is: 15
```

Here I created the vector, then sorted it while inserting it into the linked list so that I could calculate the occurrence of each element, then I calculated their sum by the equation that $\text{sum} = \text{sum} + (\text{element} * \text{number of occurrence})$.

Then I proceeded to remove an element and then I printed the elements and the sum again assuring that the element was successfully removed from the linked list.

Youssef Said
900201045

Another example:

```
Microsoft Visual Studio Debug Console
Please enter the number of elements:
10
Please fill the vector
Enter element number ( 1 ):
5
Enter element number ( 2 ):
6
Enter element number ( 3 ):
4
Enter element number ( 4 ):
3
Enter element number ( 5 ):
6
Enter element number ( 6 ):
4
Enter element number ( 7 ):
2
Enter element number ( 8 ):
5
Enter element number ( 9 ):
6
Enter element number ( 10 ):
1
Created a linked list using the vector.
Now printing the linked list
The element is: 1
With occurrence: 1
The element is: 2
With occurrence: 1
The element is: 3
With occurrence: 1
The element is: 4
With occurrence: 2
The element is: 5
With occurrence: 2
The element is: 6
With occurrence: 3

And their sum is: 42
```

Youssef Said

900201045

```
enter the element you wish to remove:
```

```
6
```

```
Now printing the linked list
```

```
The element is: 1
```

```
With occurence: 1
```

```
The element is: 2
```

```
With occurence: 1
```

```
The element is: 3
```

```
With occurence: 1
```

```
The element is: 4
```

```
With occurence: 2
```

```
The element is: 5
```

```
With occurence: 2
```

```
And their sum is: 24
```