```
Enter the number of integers: 3
Enter 3 integers:
1
2
3
Enter first value: 1
Enter second value: 2
Modified vector: 1 2 2 3
Linked list:
1 (1)
2 (2)
3 (1)
Enter a n to remove from the linked list: 3
Updated linked list:
1 (1)
2 (2)
Sum of all nodes: 3
```

```
Enter the number of integers: 5
Enter 5 integers:
Enter first value: 2
Enter second value: 4
Modified vector: 1 2 4 3 4 5
Linked list:
1 (1)
2 (1)
4 (2)
3 (1)
5 (1)
Enter a n to remove from the linked list: 1
Updated linked list:
2 (1)
4 (2)
3 (1)
5 (1)
Sum of all nodes: 14
```

The program gets n integer values from the user and stores them in a vector. Then, it finds each occurrence of a firstValue in the vector and inserts secondValue immediately after it. The program is then tested to display the number of occurrences of each element using all its functions and worked properly as seen in the images.