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Grocery list

Data Structures and Algorithms I

Grocery list Test

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Project Discussion

The goal of this program is to create a grocery list. The program takes a file which has the items that are offered to the user. The user then goes and adds items to their list. At the end of the code, a receipt is printed on a spate text file. This code shows off the uses and advantages for using the linked list. Instead of arrays, a list will have an infinite amount of space to store as much info as needed. This code also utilizes the big three, which are the copy constructor, the destructor, and the = overloaded operator. The final project for this code will be a receipt that the customer would receive as if they went to a supermarket.

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Test for Grocery List

This code is fairly straightforward for testing. The key aspects to test is how the code will handle inputs that are not correct. For example, if the amount of the item that is getting purchased is over 100 or under 0. Also if the item actually exists in the list. But first, let us test to see if we can put an item into the list.

The first product will be with the product number 16000 which is chocolate

Expected output:

Enter the product number: 16000

Enter how much you want: 1

1 Product number is 16000 description is chocolate cost 1.34 taxable 1

Next would be to try to enter a wrong value. Trying a random number like 67345.

Expected output:

Enter the product number: 67345

Enter how much you want: 0

This is not a valid option please enter again.

Again the next step would be to try to enter an outrageous amount like 5000.

Expected output:

Enter the product number: 10000

Enter how much you want: 5000

This is not a valid input!

Ok so now that we know that all of the generic tests work, let’s start to enter actual values to add to the list a bit.

Expected output:

Enter the product number: 20000

Enter how much you want: 3

3 Product number is 20000 description is Nuts cost 3.88 taxable 0

Enter the product number: 19000

Enter how much you want: 4

4 Product number is 19000 description is Wheaties cost 2.01 taxable 0

Enter the product number: 12345

Enter how much you want: 2

2 Product number is 12345 description is Turkey cost 9.99 taxable 1

Enter the product number: 14000

Enter how much you want: 1

1 Product number is 14000 description is Bread cost 1.52 taxable 1

Now when entering a 0 for the product number will stop the code and then put the receipt on the text file. The expected output on that text file should be as follows:

Receipt:

You have orderd:

1 items were bought with the Product number of 16000, description is chocolate, cost $1.34, taxable 1

67345 was not a valid choice.

3 items were bought with the Product number of 20000, description is Nuts, cost $3.88, taxable 0

4 items were bought with the Product number of 19000, description is Wheaties, cost $2.01, taxable 0

2 items were bought with the Product number of 12345, description is Turkey, cost $9.99, taxable 1

1 items were bought with the Product number of 14000, description is Bread, cost $1.52, taxable 1

The amount before tax is: $42.52

Tax: $3.43

The total: $45.95

Sample Output:

