

Programming Question 1: Using operator overloading

Specification:

This question will be based on Assignment 3, Question 2 –Customer Maintenance application to test the operator overloading. Open Customer Maintenance Application, In your `CustomerList` class, add the following two methods

```
//Add Customer to the Customer List
public static CustomerList operator + (CustomerList c1, Customer c) {...}

//Remove Customer from the Customer List
public static CustomerList operator - (CustomerList c1, Customer c) {...}
```

Modify the customer maintenance form to use these operators instead of Add() and Remove() methods. Test the application.

Programming Question 2: Using LINQ Queries

Specification:

Create an Inventory class which has the following fields

```
private string itemNo;
private string description;
private int qtyOnHand;
private decimal unitPrice;
```

Add constructor, property and ToString() method into this class.

Create a console application and test the following LINQ queries on an array of Inventory objects and display the results.

1. To sort Inventory objects by **description**.
2. To select **description** and **unitPrice** and sort by **unitPrice**.
3. To select **description** and **total** (qtyOnHand * unitPrice), sort by **total**. (Hint: Use **let** to create **total**.)
4. To display inventory objects that with unitPrice between \$30 and \$90, order by unitPrice in descending order.
5. To display inventory objects that convert the all **description** data to upper case, sort by **description**.

Use the following test data to add into your collection

itemNumber	description	qtyOnHand	unitPrice
A123	Jig saw	15	12.00
B23	Wrench	20	11.00
C112	Hammer	10	8.00
B135	Power saw	8	79.00
C238	Screwdriver	30	9.50

A890	Lawn mower	6	95.00
C290	Electric sander	12	55.00
C100	Sledge Hammer	9	30.50

Zip both solution folders and submit them in Eagle online for grading.