## COM S 213 – Fall 2002

| ASSIGNMENT #10: | Simple Shopping System |
|-----------------|------------------------|
| DATE GIVEN:     | 11/14/02               |
| DATE DUE:       | 11/21/02—              |

## **PURPOSE:**

To apply what we've learned about the Standard Template Library

## **ASSIGNMENT:**

THIS is the LAST assignment of the semester. As such, I've decided to make it good!

You will writing a very simple command line system. The following commands will be implemented:

Load Add Remove Checkout Showcart Showstore

The commands will need to be implemented as follows:

| COMMAND | DESCRIPTION   |
|---------|---|
| Load    | Prompts user for a file name which contains a list of all item  |
|         | numbers, descriptions and prices. The file has an unknown       |
|         | number of records. Each record is in the following format:      |
|         | ITEM#   |
|         | DESCRIPTION   |
|         | PRICE   |
|         | The item number is always a 6 digit integer. The description is |
|         | never longer than one line and the price should be treated as a |
|         | float.  |
|         |   |
|         | When loading the file, a data structure should be created to    |
|         | store the description and price, and that structure should be   |

|           | stored in a map with the key being the item number. This map<br>is used for future queries involving the stock in the store.   |
|-----------|--|
| Add       | Prompts the user for an item number to add to the user's<br>"basket". The basket can be a dynamic array of item numbers.<br>Assume the user can only have 1 of any one item in their<br>basket at a time (you do not need to deal with the user wanting<br>two or more of a particular item) |
| Remove    | Prompts the user for an item number to be removed from the user's basket   |
| Checkout  | Prints out item number, description and amount followed by a grand total. Program then ends.   |
| ShowCart  | Shows all items in the cart, with their prices and item numbers.   |
| ShowStore | Shows all items for sale in the store.   |

I will provide a file named "store.dat" containing a listing of all items in the store. You should show adding and removing items from the basket, and a checkout with at least four items in the basket.

## SUGGESTIONS

The due date for this assignment is, technically, next Thursday, 11/21. Since this assignment is a little harder than others, I will allow late turn ins (with no penalty) up until noon on Sunday, 11/24.

Please email me with questions.