PROG 111 Project #6
50 points Chapter 6 Material

General Instructions:

This is an open book project. You may receive assistance or help from anyone, including me, regarding the ***concepts only***. Therefore, you must do your own work on the program solution and not utilize anyone else with your code development. If you are approached by another student to supply him or her with your solution, you must decline their request. When you have finished, you must zip your solution into a Zip folder that includes the files described below and upload the folder via the Canvas upload feature.

You have nine (9) days to complete this assignment. This is the largest project so far. Do not wait until the last day to start your work! You are also being given additional time that extends until Tuesday of next week for this project because of the Exam that is due this week.

Write a complete C++ program that helps a local restaurant automate its beverage system.

a. Define a *struct* that will have 2 members: *menuItem* and *menuPrice*
b. Show the customer the different beverage items offered by the restaurant. Clear the screen before displaying the menu (each time through the loop).
c. Allow the customer to select only one item from the menu. Do not use numbers to represent the menu items. Allow an option for the user to select "No Beverage".
   Hint: We have covered enumerations.
d. Calculate and display the bill. If the user quits your program, without selecting any beverage, do not show a bill. If the user selects no beverage item, and continues running your program, then no bill should be displayed. The bill is to be displayed on its own "page".
e. Repeat the program until the user enters a sentinel value of your choice. The sentinel value cannot be 'y' or 'n'. In other words, do **not** ask the user "Do you want to continue? (y or n):"
f. Be sure to follow the Programming Standards (naming conventions) and documentation.

Beverage Selection: Milk, Coffee, Tea

Menu Item	**Menu Price**
Milk	$1.25
Coffee	$1.50
Tea	$1.35
No Beverage	

Include the following functions:

- **intro:** shows a short introductory message with your name displayed on the screen.
- **displayMenu**: Shows the menu, allows selection and validates selection. This function returns the selected item.
- **printCheck**: Calculates and displays the check. (Note that the billing amount shows 8.8% tax and the total amount due. This function must accept the structure as one of its parameters. Remember to protect the data when passing variables to functions.
- **setData**: Loads the data into the structure. One of the parameters must be the structure, do not pass members individually.
- **endingMessage:** Tells the user the program has completed. A one line statement is fine.

A sample "check" output:

```
Klingon Kafé bill for today:

Milk                $1.25
Tax                 $0.11
Amount Due          $1.36

Please pay the server.
```

Format the output with two decimal places, as shown above.

Submit in a Zip folder named ***Lastname*Project6.zip** the following files using the Canvas Assignment upload feature:

- **Source Code file (menu.cpp) and Executable file (menu.exe).** You do **not** need to include any additional project files.
- A **text file or word document containing of sample runs**. This should convince me that your program works even before I run it. **Annotate** to explain what the different cases you show are illustrating. Do **not** upload screenshots of the command windows. Instead, copy the output from the command window and paste in to a document file, see instructions, below.
- A **short summary of your work**
    1. What does or doesn't work and why
    2. Any additional functionality reasons or excuses for missing functionality.
    3. What you learned and what you found difficult or unclear about the problem.
- Please combine all summaries and samples into a single document.