**Lab 12 Dynamic Arrays**

**Problem 1. dynamic array: simple program**

This program totals and averages the sales figures for any number of days. The figures are stored in a dynamically allocated array.

The steps are:

1. Declare a double pointer Sales which will be used for dynamical array;
2. Declare an int variable numDays.
3. Prompt user to enter the number of days of sales which will be computed;
4. Dynamically allocates an array large enough to hold that many days of sales amount;
5. Prompt users to enter the sales figures for each day.
6. Calculate the total and average sales
7. Print out the result.

**Problem 2. Revise Problem lab 8 (breakfast billing system).**

Modify your program to do the following:

1. Define globally the structure data type ***menuItemType***, with three components: ***menuItem*** of string, ***menuPrice*** of type double, and ***Count*** of type int.
2. **Rewrite** function ***getData***: Prompt the breakfast billing system manager to enter the number of items (***NumOfItems***) in the menu, and then create a dynamic array named ***menuList*** with ***NumOfItems*** elements of type ***menuItemType***, and then enter item name and price respectively. (Do not read the data from the file). At the end of the function, return the pointer which is pointing to the first element.
3. Function ***showMenu***: This function shows the different items offered by the restaurant and tells the user how to select the items.
4. Function ***printCheck***: This function calculates and prints the check. (Note that the billing amount should include a 5% tax.)

Note: when you call function ***showMenu*** and ***printCheck***, pass both the parameter of ***NumOfItems*** and the pointer parameter which is pointing the first element of the array. Traversing the array is same as lab 11 (pointer to struct).