**BCS 345 Lab – Array - YearlySales**

***Overview***

Write a class that contains an array to keep track of yearly sales.

***Part 1***

***YearlySales Class***

Create a class called YearlySales. The class should have one member variable that is an array. The array should be defined such that it can hold sales figures for each month.

Member Variables: An array of double to hold each month’s sales.

*Methods:*

* double average() – Returns the average monthly sales.
* double get(int monthNum) – Returns the sales for the given month number. Month numbers are 1-Jan, 2-Feb, etc…
* void set(int monthNum, double amount) – Sets the sales amount for a given month number.

***Questions***

*1. How big should the array be?*

*2. What is the range of indices?*

*3. Might there be any problems relating month numbers to array indices?*

***Part 2***

Update the YearlySales class.

**Method ShowReport():** Add a method called ShowReport() that will print a report. The report should show a detail line for each month. It should also show the average sales for the year and the total sales for the year. For example:  
Jan 100.00

Feb 130.00

…

Dec 120.00

Avg 105.00

Total 1300.00

***Part 3***

Update the YearlySales class.

**Method ShowReportToFile:** Add a method called ShowReportToFile(). The method should print the exact same data as the ShowReport() method does but write it to a file instead. The name of the file to write to should be passed in as a parameter. The ShowReportToFile() method should have the following signature:

**public void ShowReportToFile(String fileName)**

***Part 4***

***CompanySales Class***

Create a class called CompanySales. This class should be used for storing sales for multiple years of data. It should have an array member variable that holds YearlySales objects (at least 3 elements). Write a method that shows a report for the total sales for the company. Show detail lines for each year. You may need to change the YearlySales class. You can hard code the data in.