



## Computer Programming (B) - FALL 2018 Assignment 1

Deadline – Monday 24<sup>th</sup> Sep 2018, 5:00 p.m

### Submission Folder:

\\sandata\Xeon\Fall 2018\Bismillah Jan\Computer Programming \Assignment 1

### Submission Instructions:

- Submit your running files carefully. After deadline no updated files will be accepted.
- Do not submit compressed files (.zip or .rar etc.)

**Note: Use only Pointers and Dynamic Arrays in both questions**

### Question 1:

Write a program that outputs inflation rates for two successive years and whether the inflation is increasing or decreasing. Ask the user to input the current price of an item and its price one year and two years ago. To calculate the inflation rate for a year, subtract the price of the item for that year from the price of the item one year ago and then divide the result by the price a year ago.

Your program must contain at least the following functions:

1. Function to get the input
2. Function to calculate the results, and
3. Function to output the results.

Use appropriate parameters to pass the information in and out of the function. Use Pointers and Dynamic arrays

### Sample Output:

Enter the Current Price:	70
Enter Previous Year Price:	50
Inflation rate is:	40%

### Question 2:

The cost to become a member of a fitness center is as follows:

- a) Senior citizens discount is 30%,
- b) If membership is bought and paid for 12 or more months, the discount is 15%,
- c) If more than five personal training sessions are bought and paid for, the discount on each session is 20%.

Write a menu-driven program that determines the cost of a new membership. Your program must contain a function that displays the general information about the fitness center and its charges; A function to get all of the necessary information to determine the membership cost; and a function to determine the membership cost. Use appropriate parameters to pass information in and out of a function.

### **Sample Output:**

```
Enter the cost of one Session:      1000
Enter number of Session(s):        3
(Note: Senior citizens have 30% discount, while those who paid
for 12 month have 15% discount and those who paid for five
session have 20% discount)

If you want to find the cost of fitness center:
For Senior citizens:                <Press 1>
For those who paid for 12 months:    <Press 2>
For those who paid for five sessions: <Press 3>

Your   Input: 3

You have discount of:               20%
Cost of one session for you is:     800
```