CSC 1103 Section 1 & 6 OOP

Lab Test 2

28th February & 1st March 2018

Time Allocation: 1 hour 20 minutes

Exercise

1. Write a program that can do the following tasks:
    a. Create an array List1 and initialize the array with integer/ double datatype.
    b. Create an array List2 and initialize the array with integer/ double datatype.
    c. Merge List1 and List2.
    d. Create a method to sort the merged list in ascending order.
    e. Create a method to sort the merged list in descending order.
    f. Create a method to find the biggest number in the merged list.
    g. Create a method to find the smallest number in the merged list.

Lab Test

1. **(*Menu and price*)** Write a program that can display the available menu and price. The program also must be able to find the expensive menu.
   Here is a sample run:

```
Menu                  Price (RM)
---------------------------------
Fried rice             RM 5.0
Chicken rice           RM 5.5
Spaghetti              RM 8.0
Beef Lasagna           RM 12.0
Laksa Penang           RM 3.5

The expensive menu is: Beef Lasagna  RM 12.0
```

2. ***(Sorted*)** Write the following method that returns true if the list is already sorted in increasing order. Write a test program that prompts the user to enter a list and displays whether the list is sorted or not.

   public static boolean isSorted(**int**[] list)

   Here is a sample run.

   Enter list: 9 3 4 1 5 6 7 10
   The list is not sorted

   Enter list: 1 4 7 8 10 12 14
   The list is already sorted

3. **(*Student's score*)** Write a program that able to receive input for student's score. Write a method to classify the student's score based on the below grade and able to count number of student based on their grade. Write a method that can calculate the percentage of the student's grade.

Score	Grade
80 – 100	A
65 - 79	B
50 - 64	C
40 - 49	D
0 - 39	F

   Here is a sample run.

   Enter number of student: 50
   Enter student's score for Student 1: 80
   Enter student's score for Student 2: 70
   ….
   ….
   Number of student obtained grade A: 10 (10 %)
   Number of student obtained grade B: 30 (20 %)
   ….
   ….