Programming Fundamentals – Spring 2013
(BS-SE-F12 Morning & Afternoon)

Lab # 13

Instructions:

- Indent your code properly.
- Use meaningful variable and function names. Follow the naming conventions.
- Use meaningful prompt lines/labels for all input/output that is done by your programs.
- Make sure that there are no **dangling pointers** or **memory leaks** in your program.

Task # 1

Write a C++ program containing the structure declarations and implementation of all functionalities mentioned in **Exercise # 23 to 28** from Chapter 11 (Page 639) of your textbook.

The user should be asked to enter the *Wind Speed*, *Humidity*, and *Celsius temperature* only. The Fahrenheit temperature should be calculated by using the formula:

$$F = C \times \frac{9}{5} + 32$$

Task # 2

Write a C++ program for solving **Programming Challenge # 6** (*Soccer Scores*) from Chapter 11 (Page 644) of your textbook.

Task # 3

Write a C++ program for solving **Programming Challenge # 12** (*Course Grade*) from Chapter 11 (Page 646-647) of your textbook.

Task # 4

Write a C++ program for solving **Programming Challenges # 1 and 2** (*Movie Data and Movie Profit*) from Chapter 11 (Page 643) of your textbook.

Task # 5

Write a C++ program for solving **Programming Challenge # 4** (*Weather Statistics*) from Chapter 11 (Page 644) of your textbook.

Task # 6

Write a C++ program for solving **Programming Challenge # 7** (*Customer Accounts*) from Chapter 11 (Page 645) of your textbook.

Task # 7

Write a C++ program for solving **Programming Challenge # 8** (*Search Function for Customer Accounts Program*) from Chapter 11 (Page 645) of your textbook.

Task # 8

Write a C++ program for solving **Programming Challenge # 13** (*Drink Machine Simulator*) from Chapter 11 (Page 647) of your textbook.

Task # 9

Write a C++ program for solving **Programming Challenge # 14** (*Inventory Bins*) from Chapter 11 (Page 647-648) of your textbook.