**LEBANESE AMERICAN UNIVERSITY**

**School of Arts and Sciences**

**Department of Computer Science and Mathematics**

Fall 2012

CSC 243

**Assignment 4**

Due on Tuesday November 20, 2012 (1 pm)

**ExerciseI:**

Develop a Java application that will determine whether any of several department-store customers has exceeded the credit limit on a charge account. For each customer, the following facts are available:

a) account number

b) balance at the beginning of the month

c) total of all items charged by the customer this month

d) total of all credits applied to the customer’s account this month

e) allowed credit limit.

The program should input all these facts as integers, calculate the new balance (*= beginning balance + charges – credits*), display the new balance and determine whether the new balance exceeds the customer’s credit limit. For those customers whose credit limit is exceeded, the program should display the message "Credit limit exceeded".

**ExerciseII:**

Write an application that displays the following patterns separately, one below the other. Use for loops to generate the patterns. All asterisks (\*) should be printed by a single statement of the form System.out.print( '\*' ); which causes the asterisks to print side by side. A statement of the form System.out.println(); can be used to move to the next line. A statement of the form System.out.print( ' ' ); can be used to display a space for the last two patterns. There should be no other output statements in the program. [*Hint:* The last two patterns require that each line begin with an appropriate number of blank spaces.]

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**Deliverables:**

You must submit an electronic copy of this assignment (zip files containing only the .java files) to your lab instructor through blackboard. You have also to do a demo during the first lab on or after the due date. The lab instructors are M. Ghenwa Al Jurdi (ghenwa.aljurdi@lau.edu.lb) and M. Hiba Sanadiki (hiba.sanadiki@lau.edu).

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Plagiarism on assignments and project work is a serious offense. If plagiarism is detected, a student will be subject to penalty, which ranges from receiving a zero on the assignment concerned to an “F” in the course.