**Q1.    (Linked List)**

  Create a folder to save given projects, e.g. CSD\_given (1). Down load given materials from CMS to (1) and extract.

2.       Open NetBeans, open the given A1 project, then change the project name to your RollNumber edit the MyList.java file according to the requirements of the exam

3.       Before submission: Run the function **"Clean and Build Project"** (Shift+F11), to ensure BUILD SUCCESSFUL (if not, the project will get 0 mark).

4.       **Submission**: to submit the project A1, at first you must ARCHIVE all project to 1 ZIP file then **Submit** to CMS on ther folder of your class.

5.       **Do not use accented Vietnamese** when writing comments in programs.

6.       **Do not add** new **import** statement(s) to given files.

7.       Software tools must be used: **NetBeans IDE 8.x** and **Java JDK 1.8**.

**If at least one of the above requirements is not followed, the exam will get ZERO.**

**Trouble shooting:**

If the given project (e.g. Q1) runs with error, you need to run  "Clean and Build Project"  (Shift+F11). If still error, try to rename or copy  the project to other one, e.g. from Q1 to Q1X or Q1Y,...

**Question of Assignment 1:**

(Do not pay attention to real meaning of objects, variables and their values in the questions below).

In this question you should complete some things in Bird.java **MyList.java** file.

The class Bird with 3 data members: owner color and price is given and you do not need to edit it but you can add methods if need. The MyList class is a linked list of Bird objects.  The following methods should be completed:

* void addLast(String xName, int xPrice, int xColor) - check if xName.charAt(0) == 'B' or xPrice>7 then do nothing, otherwise add new node with xname, xprice, xcolor to the end of the list. (price and color can get arbitrary, even negative values).

* void **f1()** – This method is used to test the addLast methode above. You do not need to edit this function. Output in the file **f1.txt** must be the following:

(C,6,5) (D,2,4) (E,7,9) (F,4,7)

* void **f2()** – There are 2 given Bird objects x, y in this function. Suppose the list contains at least 5 elements. Write statements to insert x and y to the list so that x will be the 1st (head), y will be the 2nd element in the list. Output in the file f2.txt must be the following:

(C,9,8) (D,6,3) (E,8,5) (F,5,4) (I,4,9)

(X,1,2) (Y,3,4) (C,9,8) (D,6,3) (E,8,5) (F,5,4) (I,4,9)

* void **f3()** – Suppose the list is not empty. Remove the second node having price < 9 and xName. charAt(0) not in form A to F. Output in the file f3.txt must be the following:

 (C,8,6) (D,6,7) (E,9,2) (F,5,8) (G,9,7) (H,5,8) (I,7,3)

 (C,8,6) (D,6,7) (E,9,2) (F,5,8) (G,9,7) (I,7,3)

* void **f4()** – Suppose the list contains at least 4 elements. Sort the first 4 elements    ascendingly by price. The content of the output file f4.txt must be the following:

 (C,7,9) (D,16,7) (E,6,16) (F,5,6) (I,4,5) (J,3,4) (K,2,3)

 (F,5,6) (E,6,16) (C,7,9) (D,16,7) (I,4,5) (J,3,4) (K,2,3)