Data structures

Practical lab 7 – Array, ArrayList and LinkedList

Dr. Sophea PRUM
sopheaprum@gmail.com

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If a programmer codes just for fun he has all his skill.
If he codes for score his hand tremble and his breath is uneasy

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Submit your project via moodle at the End of the session

Create a new project in NeatBeans and name it PraticalLab10.

Exercise 1: LinkedList of Integer

Create a java class with main method and name "LinkedListInt".

- In the main method, create a LinkedList of Integer and name it myList. Add 5 elements in the list
- Print the values in myList from the last node to first node (reverse)
- Remove all the elements having the value bellow the average value

Exercise 2: manage the library

Consider that you are the programmer who manages the "books management system" in a library. Every year, they remove books that are no longer used/interesting and bring in some new books.

- What kind of data structure we should use to store the information (list of all the books in library (called it main book list), list of "to be removed" books, list of new books)
- Write the program to remove the books in the list of "to be removed" books from the main book list
- Consider that the main book list stores the book code sorted in ascendent order. Write a program allowing to add all the book in the new book list into the main book list by keeping the main book listed sorted.

The list will store book code. Considering the example bellow:

- Main book list: "ABC0001", "ABD0005", "ABF0007", "BBC0005", "BFC0005", ...
- "To be remove" book list: "ABC0001", "ABF0007", …
- New book list: "ABE0007", "ABC0003", "BBC0007", ...