Assignment #1
Course: CSD201

P1. Submitting:

- Submit source codes (only files holding codes)
- Compress all source code files into a zipped named Fullname.zip or Fullname.rar, for example: NguyenVanA.zip or LeVanB.rar
- Last support and discuss: Monday, September 19
- Deadline: 23:59, September 22

P2. Write a Java program to do:

- Implement class Node, holding a float number named gpa_score and Node p_Next. This class also has two constructors:
    - Node()
    - Node(float f_data, Node n_data)

- Implement class Stu_list, holding two Nodes p_Head and p_Tail. The functions in this class include:
    - Stu_list()
    - Stu_list(Node n_head, Node n_tail)
    - boolean isEmpty()
    - void clear()
    - void show()
    - void addHead(Node data)
    - void addTail(Node data)
    - void deleteHead()
    - void deleteTail()
    - void deleteNode(float n) /*delete all Nodes holding this value*/
    - boolean isExisting(float n) /*to check whether a number exist in the list*/

- Implement class Stack, holding one Node p_Head. The functions in this class include:
    - Stack()
    - Stack(Node n_head)
    - boolean isEmpty()
    - void clear()
    - void show()
    - void push(float data)
    - float pop() /*return the top value after deleting it*/
    - float top() /*return the top value*/

- Implement class Queue, holding two Nodes: p_Head and p_Tail. The functions in this class include:
    - Queue()
    - Queue(Node n_Head, Node n_Tail)
    - boolean isEmpty()
    - void clear()

    - void show()
    - void enQueue(float data) /*similar to function addHead() in Stu_list*/
    - float deQueue() /*return the value at p_Tail after deleting this Node*/
    - float front() /*return the value at p_Tail*/
    - int countElement() /*return the number of elements*/

- Implement class Main, holding function public static void main() to demonstrate that your codes run correctly (for example: show(), then addHead(), then show() again to make sure that the function addHead works well)

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