2019-2020 Spring Semester

BLM2512 Data Structures and Algorithm First Assignment

Subject: Cache Buffer design.

Method to be used: Double Linked List in C programming Language

Assignment consists of 4 main parts:

- All nodes must to keep given website information, its counter and pointer to previous and next nodes.
- User can give inputs from file or console by him/her decision. Every new node that inserted into list, firstly become head of the list.
- While above statement processing you should control if the list size reaches maximum length or the given node reaches threshold value.
- Program must take list's size and threshold value from user and based on this if list size reaches maximum length and a new website arrives program should delete last node. And, program should check if the given website already in the list; if it is, program should increment its counter. And if it arrives the threshold value it should become the head node of the list.

Also, we are expecting as a user, it would be nice to ask if the user stop/exit the program and it would be nice to ask if the user wants to start over. In that case buffer must be cleaned and ready to exit or starting over.

Take screenshots for that case and attach to the report.

(Input.txt)	Output
T=2 , L=3 AB BA CY AB CY XYZ BA XYZ BA	AB,1 BA,1⇆AB,1 CY,1⇆BA,1⇆AB,1 CY,1⇆BA,1⇆AB,2 CY,2⇆BA,1⇆AB,2 XYZ,1⇆CY,2⇆BA,1 XYZ,1⇆CY,2⇆BA,2 XYZ,2⇆CY,2⇆BA,2 BA,3⇆XYZ,2⇆CY,2
T=3, L=4 A B A AA BBB B A AB A B A BB	?