

Lab 2 - Linked Lists

Problem 1. We want to manage a list of students. Information of each student consists of the following fields: name, date of birth (day, month, year), math mark, physic mark, language mark. Write a program solving the following requirements using singly linked list (using menu):

Read data of students from a file named StudentList.txt

- a) Input n students' information. //input until name="" "
- b) Print out the student list.
- c) Add a new student to the list.
- d) Count the number of students in a given year of birth.
- e) Check if a student name x exists in the list or not.
- f) Delete a student from the list by a given name x.
- g) Find the student(s) having the biggest average of math, physic and language marks.
- h) Print the list of students whose math mark is less than 5.
- i) Write the student list to a file named StudentList.txt.

Problem 2. A polynomial is represented as follows:

```
struct node{
    int num;
    int coeff;
    struct node *next;
};
```

Write a program to store a polynomial using linked list and the following functions:

- a) Input a polynomial and store it in a linked list.
- b) Print the polynomial.
- c) Perform addition on two polynomials.
- d) Perform subtraction on two polynomials.