### Address list design Experiment Report

Class:计科201 Student ID 1:20401010114 Name 1:余亚宁 Experiment Date:2021/11/6

Student ID 2:20401010101 Name 2:沈梦越

Student ID 3:20401010106 Name 3:杨婧菡

1. **Experimental purpose**

Design a classmate's address list ang use

1. **Experimental environment**

VS2019

1. **Experimental content**

requested as follows:

* Each student in the address list contains the following information: student id、name、telephone number. If you need more fields, please add them yourself.
* The program has a main menu containing the following functions:

1. Add a record: Add a student record from the input.
2. Delete a record: Delete a student record according to the student id from the input.
3. Output all records: Display all the records in the address list.
4. Search by name: Input the student name and then output the whole information of the student.
5. Save records: Save all the records in the address list to a certain file.
6. Clear records: Delete all the records in the address list and then delete the file.
7. Quit
8. **Important data structures**

struct student

{

int id;//ID作为key，不存在重复ID

string name;

string telephone;

};

struct nodeOfStudent

{

student data;

nodeOfStudent\* next=NULL;

};

typedef nodeOfStudent\* studentList;

1. **Implementation analysis**

Firstly,the code need a menu for function lookup,so I built a function for menu.

Secondly,when user need to find,add or delete a information,the key point is needed,so I regarded student’s id as key point.

Thirdly,I choose the head insert to add information.

1. **Debugging problem analysis**

The problem I met is when I use function to insert or delete, I didn’t use another pointer to record ,it became a Wild Pointer.

1. **Summary**

I can use link to do list  adroitly.

1. **Crew Division**

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| --- | --- | --- |
| **Group division** | | |
| **Member name** | **Work done** | **Completion situation** |
| **余亚宁** | **代码和报告** | **100%** |
| **沈梦越** | **代码** | **100%** |
| **杨婧菡** | **代码** | **60%** |