ListNode

+ Type data;
+ ListNode *next;

+ ListNode();
+ ListNode(Type data);
+ ListNode(ListNode<Type> *node);

CatePair

+ string category;
+ int num;

+ CatePair();
+ CatePair(string cate);

Student

- int _admissionID;
- int _gender;
- int _age;
- string _name;
- string _category;

+ Student();
+ ~Student();
+ int getID();
+ void setID(int id);
+ int getGender();
+ void setGender(int gender);
+ int getAge();
+ void setAge(int age);
+ string getName();
+ void – setName(string name)
+ string getCategory();
+ void setCategory(string category);
+ bool changeInfo(Student &newStudent);
+ friend istream &operator>>(istream &in, Student &s);
+ friend ostream &operator<<(osrteam &out, Student &s);

合成关系

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StudentList

- int listSize;
- int maleNum;
- int femaleNum;
- ListNode<Student> *fisrt;
- ListNode<CatePair> *cateFirst;

+ StudentList(int num);
+ ~StudentList();
+ bool isEmpty();
+ int size();
+ ListNode<Student> *getFirstNode() const;
+ int getElemByID(int admissionID) const;
+ Student &getElem() const;
+ void insertElem(int index);
+ void deleteElem(int index);
+ void summary();
+ friend ostream &operator<<(ostream &out, StudentList &list);