## ☐ Ittzz / Course-Design

Branch: master ▼ Course-Design / T2 / 2.cpp

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                              2.cpp
  3
           > File Category: Course Design
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     6
    //注: 此程序以整形存储数字,故当字符串中的数字串过长时不可避免的会溢出
  8
    //fdf907 089fa4899f 79fd80 7997fjdls6869
  9
    //fdf907 089fa4899f 79fd80 7997fjdls
 10
    //有数字串6个, 分别是
    //907 89 79 80 7997 6869
    #include <iostream>
    #include <cstdio>
 14
 15
    using namespace std;
 16
    const int MAXN = 1000+5;
 18
    char tmp[MAXN];
 19
     int cnt, n;
    bool flag;
    struct Node
    {
 24
           int num;
           struct Node *next;
 26
     };
     struct Node *head = NULL, *p;
 28
 30
    void init();
 31
    void addNode(int n);
 32
    void initStatus();
    void readNumString();
 34
    void showNum();
 35
 36
     int main(void)
 38
 39
        //freopen("./in.txt", "r", stdin);
 40
        init();
 41
        readNumString();
        showNum();
 42
 43
        return 0;
 44
     }
 45
 46
 47
     * 初始化状态值
 48
     */
 49
    void init()
        cnt = 0, n = 0;
                               //标记是否找到数字
        flag = false;
     }
 54
     * 增加数据域为n的节点
 56
     * @param n 新增加节点的数据域
 57
 59
     void addNode(int n)
 60
     {
 61
           if (head == NULL)
 62
```

```
63
            p = new struct Node;
64
            head = p;
         }
65
66
         else
67
         {
             p->next = new struct Node;
68
69
            p = p->next;
70
         }
         p - > num = n;
         p->next = NULL;
     }
 74
 75
     * 重置状态值
76
78
     void initStatus()
 79
     {
80
            flag = false;
         n = 0;
81
82
     }
83
84
      * 读取字符串,当是数字串时将其插到链表尾
85
86
87
     void readNumString()
88
     {
         cout << "Enter a long string: ";</pre>
89
90
         cin.getline(tmp, 1000, '\n');
91
         for(int i = 0; tmp[i]; i++)
92
         {
             if ('0' <= tmp[i] && tmp[i] <= '9')</pre>
93
94
             {
95
                      flag = true;
                n = n * 10 + tmp[i] - '0'; //计算数字串的值(行首零自动过滤掉)
96
             }
97
             else if (flag)
99
100
                      addNode(n);
                      initStatus();
                                      //统计数字串个数
                 cnt++;
            }
104
         }
                                       //当字符串以数字结尾的时候,进这儿的if里,添加节点
105
         if (flag)
               addNode(n);
108
             cnt++;
109
         }
     }
     * 输出链表内容,顺便释放内存
114
     void showNum()
116
             cout << "有数字串" << cnt << "个, 分别是: " << endl;
118
            while (head)
119
         {
            cout << head->num << endl;</pre>
             p = head;
            head = head->next;
             delete p;
124
         }
125
     }
126
```