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TP week 4.h X TP week 4.cpp X main.cpp X
1 #include "TP week 4.h"
2
3 void createList(List &D){
4     first(D) = NULL;
5 }
6
7 adr newElement(infotype x){
8     adr P = new element;
9     info(P) = x;
10    next(P) = NULL;
11    return P;
12 }
13
14 void insertFirst(List &D, adr P){
15     if (first(D) == NULL){
16         first(D) = P;
17     }
18     next(P) = first(D);
19     first(D) = P;
20 }
21
22 void show(List D){
23     if (first(D) != NULL){
24         adr P = first(D);
25         while (P != NULL){
26             cout << (info(P)) << " ";
27             P = next(P);
28         }
29         cout << endl;
30     }
}

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TP week 4.h X TP week 4.cpp X main.cpp X
40     P = NULL;
41     cout << "List Kosong" << endl;
42 } else if (next(first(D)) == NULL){
43     P = first(D);
44     first(D) = NULL;
45 } else{
46     Q = first(D);
47     P = first(D);
48     while (next(P) != NULL){
49         Q = P;
50         P = next(P);
51     }
52     next(Q) = NULL;
53     return P;
54 }
55 }
56
57 void insertLast(List &D, adr P){
58     if (next(first(D)) == NULL){
59         next(first(D)) = P;
60     }
61     else{
62         adr Q = first(D);
63         while (next(Q) != NULL){
64             Q = next(Q);
65         }
66         next(Q) = P;
67     }
68 }

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TP week 4.h X TP week 4.cpp X main.cpp X
C:\Users\inta\OneDrive\Documents\COLLEGE\33\1 STD \TP\TP week 4\TP week 4.h
Project: TP week 4
4 #include <iostream>
5 using namespace std;
6
7 #define info(P) (P)->info
8 #define next(P) (P)->next
9 #define first(D) ((D).first)
10
11
12 typedef char infotype;
13 typedef struct element *adr;
14
15 struct element{
16     infotype info;
17     adr next;
18 };
19
20 struct List{
21     adr first;
22 };
23
24 void createList(List &D);
25 adr newElement(infotype x);
26 void insertFirst(List &D, adr P);
27 void show(List D);
28 adr deleteLast(List &D);
29 void insertLast(List &D, adr P);
30
31 #endif // TP_WEEK_4_H_INCLUDED
32

```

```
TP week 4.h x TP week 4.cpp x main.cpp x
1 #include "TP week 4.h"
2
3 int main()
4 {
5     cout << "Create List" << endl;
6
7     List D;
8     cout << "first(D) sebelum createList : " << first(D) << endl;
9
10    createList(D);
11    cout << "first(D) setelah createList : " << first(D) << endl;
12    cout << endl << endl;
13
14    // newElement
15    cout << "New Element" << endl;
16
17    adr p;
18    p = newElement('1');
19    cout << "Info(p) : " << info(p) << endl;
20    cout << "Next(p) : " << next(p) << endl;
21    cout << endl << endl;
22
23    // insertFirst
24    cout << "Insert First" << endl;
25
26    cout << "first(D) sebelum insertFirst : " << first(D) << endl;
27    insertFirst(D, p);
28    cout << "first(D) setelah insertFirst : " << first(D) << endl;
29
30    p = newElement('5');
31    insertFirst(D, p);
32    cout << "Info first(D) : " << info(first(D)) << endl;
33    cout << endl << endl;
34
35    // show
36    cout << "Show" << endl;
37
38    next(P) : 0
39
40    Insert First
41    first(D) sebelum insertFirst : 0
42    first(D) setelah insertFirst : 0xda1a20
43    Info first(D) : 5
44
45    Show
46    5 1
47    / 5 1
48
49    Delete Last
50    / 5
51    1
52    /
53    5
54
55    List Kosong
56    /
57
58    Insert Last
59
60    Process returned -1073741819 (0xC0000005)   execution time : 0.751 s
61    Press any key to continue.
```