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IF – 45 – 11 (1301213126)

The screenshot shows the Code::Blocks 20.03 IDE with the SLL.h header file open. The left sidebar shows the project structure for 'TPMOD4' with files 'main.cpp', 'SLL.cpp', and 'SLL.h'. The main editor displays the SLL.h file with the following code:

```
1  #ifndef SLL_H_INCLUDED
2  #define SLL_H_INCLUDED
3
4  #include <iostream>
5  using namespace std;
6
7  #define info(P) (P->info)
8  #define next(P) (P->next)
9  #define first(FA) (((FA)).first)
10
11 typedef char infotype;
12
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 Create_list_1301213126(List &FA);
25 adr newElement_1301213126(infotype x);
26 void insert_first_1301213126(List &FA, adr p);
27 void Show_1301213126(List FA);
28 adr DeleteLast_1301213126(List &FA);
29 adr DeleteFirst_1301213126(List &FA);
30 #endif // SLL_H_INCLUDED
```

The status bar at the bottom indicates the file path 'D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TPMOD4\SLL.h', the language 'C/C++', the window title 'Windows (CR+LF)', the window size 'WINDOWS-1252', the cursor position 'Line 4, Col 20, Pos 69', and the editor mode 'Insert'.

The screenshot shows the Code::Blocks 20.03 IDE with the SLL.cpp source file open. The left sidebar shows the project structure for 'TPMOD4' with files 'main.cpp', 'SLL.cpp', and 'SLL.h'. The main editor displays the SLL.cpp file with the following code:

```
1  #include "SLL.h"
2
3  void Create_list_1301213126(List &FA) {
4      first(FA) = NULL;
5  }
6
7  adr newElement_1301213126(infotype x) {
8      adr P = new element;
9      info(P) = x;
10     next(P) = NULL;
11     return P;
12 }
13
14 void insert_first_1301213126(List &FA, adr p) {
15     if (first(FA) == NULL) {
16         first(FA) = p;
17     } else {
18         next(p) = first(FA);
19         first(FA) = p;
20     }
21 }
22
23 void Show_1301213126(List FA) {
24     if (first(FA) != NULL) {
25         adr p = first(FA);
26         while(p != NULL) {
27             cout << info(p) << " ";
28             p = next(p);
29         }
30         cout << endl;
31     }
32 }
```

The status bar at the bottom indicates the file path 'D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TPMOD4\SLL.cpp', the language 'C/C++', the window title 'Windows (CR+LF)', the window size 'WINDOWS-1252', the cursor position 'Line 62, Col 14, Pos 1238', and the editor mode 'Insert'.

SLLcpp [TPMOD4] - Code::Blocks 20.03

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Debug

<global> DeleteFirst_1301213126(List &FA) : adr

Management

Projects Files FSy

Workspace

TPMOD4

Sources

main.cpp

SLL.cpp

Headers

SLL.h

```
34 }
35
36 adr DeleteLast_1301213126(List &FA) {
37     adr p, q;
38     if (first(FA) == NULL) {
39         p = NULL;
40         cout << "List Kosong" << endl;
41     } else if (next(first(FA)) == NULL) {
42         p = first(FA);
43         first(FA) = NULL;
44     } else {
45         q = first(FA);
46         p = first(FA);
47         while (next(p) != NULL) {
48             q = p;
49             p = next(p);
50         }
51         next(q) = NULL;
52     }
53     return p;
54 }
55
56 adr DeleteFirst_1301213126(List &FA) {
57     adr p;
58     p = first(FA);
59     first(FA) = next(p);
60     next(p) = NULL;
61
62     return p;
63 }
```

main.cpp [TPMOD4] - Code::Blocks 20.03

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

Debug

<global> main() : int

Management

Projects Files FSy

Workspace

TPMOD4

Sources

main.cpp

SLL.cpp

Headers

SLL.h

```
1 #include "SLL.h"
2 using namespace std;
3
4 int main()
5 {
6     List FA;
7     cout << "first(FA) sebelum createList : " << first(FA) << endl;
8
9     Create_list_1301213126(FA);
10    cout << "first(FA) setelah createList : " << first(FA) << endl;
11    cout << endl;
12
13    //newElement
14    adr P;
15    P = newElement_1301213126(100);
16    cout << "Info(P): " << info(P) << endl;
17    cout << "Next(P): " << next(P) << endl;
18    cout << endl;
19
20    //insertFirst
21    cout << "First(FA) sebelum insertFirst : " << first(FA) << endl;
22    insert_first_1301213126(FA, P);
23    cout << "First(FA) setelah insertFirst : " << first(FA) << endl;
24    cout << "info First(FA) : " << info(first(FA)) << endl;
25
26    P = newElement_1301213126(15);
27    insert_first_1301213126(FA, P);
28    cout << "info First(FA): " << info(first(FA)) << endl;
29    cout << endl;
```

D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TPMOD4\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 52, Col 15, Pos 1334 Insert Read/Write default

```
SLL.h x SLL.cpp x main.cpp x
25
26     P = newElement_1301213126(15);
27     insert_first_1301213126(FA, P);
28     cout << "info First(FA): " << info(first(FA)) << endl;
29     cout << endl;
30
31     //show
32     Show_1301213126(FA);
33
34     P = newElement_1301213126(230);
35     insert_first_1301213126(FA, P);
36     Show_1301213126(FA);
37     cout << endl;
38
39     //Delete last
40     P = DeleteLast_1301213126(FA);
41     Show_1301213126(FA);
42     cout << info(P) << endl << endl;
43
44     P = DeleteLast_1301213126(FA);
45     Show_1301213126(FA);
46     cout << info(P) << endl << endl;
47
48     P = DeleteLast_1301213126(FA);
49     Show_1301213126(FA);
50     cout << info(P) << endl << endl;
51
52     //Delete first
53     cout << "First(FA) sebelum DeleteFirst : " << first(FA) << endl;
```

```
38
39 //Delete last
40 P = DeleteLast_1301213126(FA);
41 Show_1301213126(FA);
42 cout << info(P) << endl << endl;
43
44 P = DeleteLast_1301213126(FA);
45 Show_1301213126(FA);
46 cout << info(P) << endl << endl;
47
48 P = DeleteLast_1301213126(FA);
49 Show_1301213126(FA);
50 cout << info(P) << endl << endl;
51
52 //Delete first
53 cout << "First(FA) sebelum DeleteFirst : "<< first(FA) << endl;
54 DeleteFirst_1301213126(FA);
55 cout << "First(FA) setelah DeleteFirst : "<< first(FA) << endl;
56 cout << "info First(FA) : "<< info(first(FA)) << endl;
57
58 P = newElement_1301213126(15);
59 DeleteFirst_1301213126(FA);
60 cout << "info First(FA) : "<< info(first(FA)) << endl;
61 cout << endl;
62
63 return 0;
64 }
65
```

D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TPMOD4\bin\Debug\TPMOD4.exe

first(FA) sebelum createList : 0x10
first(FA) setelah createList : 0

Info(P): d
Next(P): 0

First(FA) sebelum insertFirst : 0
First(FA) setelah inserFirst : 0xf21780
info First(FA) : d
info First(FA): 0

0 d
μ 0 d

μ 0
d

μ
0

List Kosong
μ

First(FA) sebelum DeleteFirst : 0

Process returned -1073741819 (0xC0000005) execution time : 1.106 s
Press any key to continue.