

Hemia Lisa Simbolon

1301210526

IF-45-11

CSLL.h

```

CSLL.h x *CSLL.cpp x main.cpp x
1  #ifndef CSLL_H_INCLUDED
2  #define CSLL_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(L) ((L).first)
10 #define last(L) ((L).last)
11 #define nil NULL
12
13 struct infotype{
14     string artis, judul, genre;
15     int playtime;
16 };
17
18 typedef struct elmlist *adr;
19
20 struct elmlist{
21     infotype info;
22     adr next;
23 };
24
25 struct List{
26     adr first;
27 };
28
29 void createlist_1301210526(List &L);
30 void createElm_1301210526(infotype lagubaru, adr &P);
31 void insertLast_1301210526(List &L, adr P);
32 void deletefirst_1301210526(List &L, adr &P);
33 void show_1301210526(List &L);
34
35 #endif // CSLL_H_INCLUDED
36

```

CSLL.cpp

```
CSLL.h x *CSLL.cpp x main.cpp x
1  #include "csll.h"
2
3  void createlist_1301210526(List &L) {
4      first(L) = nil;
5  }
6
7  void createElm_1301210526(infotype lagubaru, adr &P) {
8      P = new elmlist;
9      info(P) = lagubaru;
10     next(P) = nil;
11 }
12
13 void insertLast_1301210526(List &L, adr P) {
14     if(first(L) == nil) {
15         first(L) = P;
16         next(P) = first(L);
17     } else {
18         adr q = first(L);
19         while(next(q) != first(L)) {
20             q = next(q);
21         }
22         next(q) = P;
23         next(P) = first(L);
24     }
25 }
26
27 void deletefirst_1301210526(List &L, adr &P) {
28     if(first(L) == nil) {
29         cout<<"List Kosong"<<endl;
30     } else {
31         adr q = first(L);
32         while(next(q) != first(L)) {
33             q = next(q);
34         }
35         P = first(L);
36         first(L) = next(first(L));
37         next(q) = first(L);
38         next(P) = nil;
39     }
40 }
41
42 void show_1301210526(List &L) {
43     adr P = first(L);
44     int i = 1;
45     if(first(L) == nil) {
46         cout<<"List Kosong"<<endl;
47     } else {
48         while(next(P) != first(L)) {
49             cout<<i<<".\tArtis:\t"<<info(P).artis<<"\n\tJudul:\t"<<info(P).judul<<"\n\tGenre:\t"<<
50             info(P).genre<<"\n\tPlay:\t"<<info(P).playtime<<endl<<endl;
51             P = next(P);
52             i++;
53         }
54         cout<<i<<".\tArtis:\t"<<info(P).artis<<"\n\tJudul:\t"<<info(P).judul<<"\n\tGenre:\t"<<
55         info(P).genre<<"\n\tPlay:\t"<<info(P).playtime<<endl;
56     }
57     cout<<endl;
58 }
```

Main.cpp

```
CSLL.h X *CSLL.cpp X main.cpp X
1  #include <iostream>
2  #include "csll.h"
3
4  using namespace std;
5
6  int main()
7  {
8      List L;
9      adr P;
10     infotype lagubaru;
11
12     createlist_1301210526(L);
13
14     lagubaru.artis = "Ella Fitzgerald";
15     lagubaru.judul = "Summertime";
16     lagubaru.genre = "Jazz";
17     lagubaru.playtime = 182;
18     createElm_1301210526(lagubaru, P);
19     insertLast_1301210526(L, P);
20
21     lagubaru.artis = "Iwan Fals";
22     lagubaru.judul = "Pesawat Tempur";
23     lagubaru.genre = "Rock";
24     lagubaru.playtime = 144;
25     createElm_1301210526(lagubaru, P);
26     insertLast_1301210526(L, P);
27
28     lagubaru.artis = "Coldplay";
29     lagubaru.judul = "Up & Up";
30     lagubaru.genre = "POP";
31     lagubaru.playtime = 200;
```

```
CSLL.h x *CSLL.cpp x main.cpp x
32     createElm_1301210526(lagubaru,P);
33     insertLast_1301210526(L,P);
34
35     lagubaru.artis = "Cigarette after sx";
36     lagubaru.judul = "Sweet";
37     lagubaru.genre = "Indie";
38     lagubaru.playtime = 235;
39     createElm_1301210526(lagubaru,P);
40     insertLast_1301210526(L,P);
41
42     lagubaru.artis = "Masdo";
43     lagubaru.judul = "Janji Manis";
44     lagubaru.genre = "POP";
45     lagubaru.playtime = 123;
46     createElm_1301210526(lagubaru,P);
47     insertLast_1301210526(L,P);
48
49     lagubaru.artis = "A7x";
50     lagubaru.judul = "Dear God";
51     lagubaru.genre = "Rock";
52     lagubaru.playtime = 366;
53     createElm_1301210526(lagubaru,P);
54     insertLast_1301210526(L,P);
55
56     lagubaru.artis = "Lyodra Ginting";
57     lagubaru.judul = "Pesan Terakhir";
58     lagubaru.genre = "POP";
59     lagubaru.playtime = 88;
60     createElm_1301210526(lagubaru,P);
61     insertLast_1301210526(L,P);
62
```

```
CSLL.h x *CSLL.cpp x main.cpp x
62
63     lagubaru.artis = "Andra and the Backbone";
64     lagubaru.judul = "Surrender";
65     lagubaru.genre = "Rock";
66     lagubaru.playtime = 99;
67     createElm_1301210526(lagubaru,P);
68     insertLast_1301210526(L,P);
69
70     lagubaru.artis = "Raisa";
71     lagubaru.judul = "Could It Be";
72     lagubaru.genre = "Jazz";
73     lagubaru.playtime = 112;
74     createElm_1301210526(lagubaru,P);
75     insertLast_1301210526(L,P);
76
77     lagubaru.artis = "Glenn Fredly";
78     lagubaru.judul = "Kasih Putih";
79     lagubaru.genre = "R&B";
80     lagubaru.playtime = 103;
81     createElm_1301210526(lagubaru,P);
82     insertLast_1301210526(L,P);
83
84     lagubaru.artis = "Siti Badriah";
85     lagubaru.judul = "Lagi Syantik";
86     lagubaru.genre = "Dangdut";
87     lagubaru.playtime = 279;
88     createElm_1301210526(lagubaru,P);
89     insertLast_1301210526(L,P);
90
91     lagubaru.artis = "Nadin Amizah";
92     lagubaru.judul = "Bertaut";
```

```
CSLL.h x *CSLL.cpp x main.cpp x
92     lagubaru.judul = "Bertaut";
93     lagubaru.genre = "POP";
94     lagubaru.playtime = 189;
95     createElm_1301210526(lagubaru, P);
96     insertLast_1301210526(L, P);
97
98     lagubaru.artis = "J-Rocks";
99     lagubaru.judul = "Fallin' In Love";
100    lagubaru.genre = "Rock";
101    lagubaru.playtime = 167;
102    createElm_1301210526(lagubaru, P);
103    insertLast_1301210526(L, P);
104
105    lagubaru.artis = "Alicia Keys";
106    lagubaru.judul = "If I Ain't Got You";
107    lagubaru.genre = "R&B";
108    lagubaru.playtime = 155;
109    createElm_1301210526(lagubaru, P);
110    insertLast_1301210526(L, P);
111
112    lagubaru.artis = "Queen";
113    lagubaru.judul = "Bohemian Rhapsody";
114    lagubaru.genre = "Rock";
115    lagubaru.playtime = 134;
116    createElm_1301210526(lagubaru, P);
117    insertLast_1301210526(L, P);
118
119    lagubaru.artis = "Tulus";
120    lagubaru.judul = "Sepatu";
121    lagubaru.genre = "Jazz";
122    lagubaru.playtime = 187;
123    createElm_1301210526(lagubaru, P);
124    insertLast_1301210526(L, P);
125
126    lagubaru.artis = "Yura Yunita";
127    lagubaru.judul = "Tenang";
128    lagubaru.genre = "POP";
129    lagubaru.playtime = 98;
130    createElm_1301210526(lagubaru, P);
131    insertLast_1301210526(L, P);
132
133    cout<<"===== "<<endl;
134    cout<<"=====  List Awal  ===== "<<endl;
135    cout<<"===== "<<endl;
136    show_1301210526(L);
137
138    cout<<"===== "<<endl;
139    cout<<"===== List Setelah Delete First ===== "<<endl;
140    cout<<"===== "<<endl;
141    deletefirst_1301210526(L, P);
142    show_1301210526(L);
143 }
144
```

Output

"C:\Users\User\Documents\TP Struktur Data\TP08\TP_MOD8_1301210526_HAR\bin\Debug\TP_MOD8_1301210526_HAR.exe"

```
=====
===== List Awal =====
=====
```

1. Artis: Ella Fitzgerald
 Judul: Summertime
 Genre: Jazz
 Play: 182
2. Artis: Iwan Fals
 Judul: Pesawat Tempur
 Genre: Rock
 Play: 144
3. Artis: Coldplay
 Judul: Up & Up
 Genre: POP
 Play: 200
4. Artis: Cigarette after sx
 Judul: Sweet
 Genre: Indie
 Play: 235
5. Artis: Masdo
 Judul: Janji Manis
 Genre: POP
 Play: 123
6. Artis: A7x
 Judul: Dear God
 Genre: Rock
 Play: 366
7. Artis: Lyodra Ginting
 Judul: Pesan Terakhir
 Genre: POP
 Play: 88
8. Artis: Andra and the Backbone
 Judul: Surrender

"C:\Users\User\Documents\TP Struktur Data\TP08\TP_MOD8_1301210526_HAR\bin\Debug\TP_MOD8_1301210526_HAR.exe"

8.	Artis: Andra and the Backbone
	Judul: Surrender
	Genre: Rock
	Play: 99
9.	Artis: Raisa
	Judul: Could It Be
	Genre: Jazz
	Play: 112
10.	Artis: Glenn Fredly
	Judul: Kasih Putih
	Genre: R&B
	Play: 103
11.	Artis: Siti Badriah
	Judul: Lagi Syantik
	Genre: Dangdut
	Play: 279
12.	Artis: Nadin Amizah
	Judul: Bertaut
	Genre: POP
	Play: 189
13.	Artis: J-Rocks
	Judul: Fallin' In Love
	Genre: Rock
	Play: 167
14.	Artis: Alicia Keys
	Judul: If I Ain't Got You
	Genre: R&B
	Play: 155
15.	Artis: Queen
	Judul: Bohemian Rhapsody
	Genre: Rock
	Play: 134

"C:\Users\User\Documents\TP Struktur Data\TP08\TP_MOD8_1301210526_HAR\bin\Debug\TP_MOD8_1301210526_HAR.exe"

16. Artis: Tulus
 Judul: Sepatu
 Genre: Jazz
 Play: 187

17. Artis: Yura Yunita
 Judul: Tenang
 Genre: POP
 Play: 98

=====
===== List Setelah Delete First =====
=====

1. Artis: Iwan Fals
 Judul: Pesawat Tempur
 Genre: Rock
 Play: 144

2. Artis: Coldplay
 Judul: Up & Up
 Genre: POP
 Play: 200

3. Artis: Cigarette after sx
 Judul: Sweet
 Genre: Indie
 Play: 235

4. Artis: Masdo
 Judul: Janji Manis
 Genre: POP
 Play: 123

5. Artis: A7x
 Judul: Dear God
 Genre: Rock
 Play: 366

6. Artis: Lyodra Ginting
 Judul: Pesan Terakhir

"C:\Users\User\Documents\TP Struktur Data\TP08\TP_MOD8_1301210526_HAR\bin\Debug\TP_MOD8_1301210526_HAR.exe"

	Genre:	POP
	Play:	88
7.	Artis:	Andra and the Backbone
	Judul:	Surrender
	Genre:	Rock
	Play:	99
8.	Artis:	Raisa
	Judul:	Could It Be
	Genre:	Jazz
	Play:	112
9.	Artis:	Glenn Fredly
	Judul:	Kasih Putih
	Genre:	R&B
	Play:	103
10.	Artis:	Siti Badriah
	Judul:	Lagi Syantik
	Genre:	Dangdut
	Play:	279
11.	Artis:	Nadin Amizah
	Judul:	Bertaut
	Genre:	POP
	Play:	189
12.	Artis:	J-Rocks
	Judul:	Fallin' In Love
	Genre:	Rock
	Play:	167
13.	Artis:	Alicia Keys
	Judul:	If I Ain't Got You
	Genre:	R&B
	Play:	155
14.	Artis:	Queen
	Judul:	Bohemian Rhapsody

"C:\Users\User\Documents\TP Struktur Data\TP08\TP_MOD8_1301210526_HAR\bin\Debug\TP_MOD8_1301210526_HAR.exe"

Genre: Rock
Play: 134

15. Artis: Tulus
Judul: Sepatu
Genre: Jazz
Play: 187

16. Artis: Yura Yunita
Judul: Tenang
Genre: POP
Play: 98

Process returned 0 (0x0) execution time : 0.127 s
Press any key to continue.