

Sekar Dewi Harnum Saputri

1301213114

```

1  #ifndef CSLL_H_INCLUDED
2  #define CSLL_H_INCLUDED
3  #include <iostream>
4
5  #define info(P) (P)->info
6  #define next(P) (P)->next
7  #define first(L) ((L).first)
8
9  using namespace std;
10
11 typedef struct elmList *address;
12 struct infotype{
13     string artis;
14     string judul;
15     string genre;
16     int playtime;
17 };
18
19 struct elmList {
20     infotype info;
21     address next;
22 };
23
24 struct List{
25     address first;
26 };
27
28 void createList_1301213114(List &L);
29 void createElemen_1301213114(infotype lagubaru, address &p);
30 void insertLast_1301213114(List &L, address p);
31 void showAllLagu_1301213114(List L);
32 void deleteFirst_1301213114(List &L, address &p);
33
34
35 #endif // CSLL_H_INCLUDED
36

```

```

1  #include "cs11.h"
2
3  void createList_1301213114(List &L){
4      first(L) = NULL;
5  }
6
7  void createElemen_1301213114(infotype lagubaru, address &p){
8      p = new elmList;
9      info(p) = lagubaru;
10     next(p) = NULL;
11 }
12
13 void insertLast_1301213114(List &L, address p){
14     if (first(L) == NULL){
15         first(L) = p;
16         next(first(L)) = first(L);
17     } else {
18         address Q = first(L);
19         while (next(Q) != first(L)){
20             Q = next(Q);
21         }
22         next(p) = next(Q);
23         next(Q) = p;
24     }
25 }
26
27 void showAllLagu_1301213114(List L){
28     if (first(L) == NULL){
29         cout << "List Kosong" << endl;
30     } else {
31         cout << "Show All Data" << endl;
32         address Q = first(L);
33         int i = 1;
34         cout << i << ". Artis : " << info(Q).artis << endl;
35         cout << "Judul : " << info(Q).judul << endl;
36         cout << "Genre : " << info(Q).genre << endl;
37         cout << "Playtime : " << info(Q).playtime << endl;

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37         cout << "Playtime : " << info(Q).playtime << endl;
38         Q = next(Q);
39         while (Q != first(L)){
40             i++;
41             cout << i << ". Artis : " << info(Q).artis << endl;
42             cout << "Judul : " << info(Q).judul << endl;
43             cout << "Genre : " << info(Q).genre << endl;
44             cout << "Playtime : " << info(Q).playtime << endl;
45             Q = next(Q);
46         }
47         cout << endl;
48     }
49 }
50
51 void deleteFirst_l30l2l3l1l4(List &L, address &p){
52     p = first(L);
53     if (first(L) == NULL){
54         cout << "List Kosong" << endl;
55     } else if (next(first(L)) == first(L)) {
56         next(p) = NULL;
57         first(L) = NULL;
58     } else {
59         address Q = first(L);
60         while (next(Q) != first(L)){
61             Q = next(Q);
62         }
63
64         first(L) = next(first(L));
65         next(Q) = first(L);
66         next(p) = NULL;
67     }
68 }
69

```

```

1  #include "cs11.h"
2
3  int main()
4  {
5      List L;
6      address p;
7      infotype lagu1, lagu2, lagu3, lagu4, lagu5;
8
9      createList_1301213114(L);
10     lagu1.artis = "Tulus";
11     lagu1.genre = "Mellow";
12     lagu1.judul = "Hati hati di jalan";
13     lagu1.playtime = 50;
14
15     lagu2.artis = "Gangga";
16     lagu2.genre = "Mellow";
17     lagu2.judul = "Blue Jeans";
18     lagu2.playtime = 10;
19
20     lagu3.artis = "BTS";
21     lagu3.genre = "Kpop";
22     lagu3.judul = "Dynamite";
23     lagu3.playtime = 15;
24
25     lagu4.artis = "One Ok Rock";
26     lagu4.genre = "Rock";
27     lagu4.judul = "The Beginning";
28     lagu4.playtime = 18;
29
30     lagu5.artis = "Le Sserafim";
31     lagu5.genre = "Kpop";
32     lagu5.judul = "Anti Fragile";
33     lagu5.playtime = 100;
34
35     createElemen_1301213114(lagu1, p);
36     insertLast_1301213114(L, p);
37     createElemen_1301213114(lagu2, p);
38     insertLast_1301213114(L, p);
39     createElemen_1301213114(lagu3, p);
40     insertLast_1301213114(L, p);
41     createElemen_1301213114(lagu4, p);
42     insertLast_1301213114(L, p);
43     createElemen_1301213114(lagu5, p);
44     insertLast_1301213114(L, p);
45     showAllLagu_1301213114(L);
46     cout << "Delete first" << endl;
47     deleteFirst_1301213114(L, p);
48     showAllLagu_1301213114(L);
49     return 0;
50 }
51

```

Show All Data

1. Artis : Tulus

Judul : Hati hati di jalan

Genre : Mellow

Playtime : 50

2. Artis : Gangga

Judul : Blue Jeans

Genre : Mellow

Playtime : 10

3. Artis : BTS

Judul : Dynamite

Genre : Kpop

Playtime : 15

4. Artis : One Ok Rock

Judul : The Beginning

Genre : Rock

Playtime : 18

5. Artis : Le Sserafim

Judul : Anti Fragile

Genre : Kpop

Playtime : 100

Delete first

Show All Data

1. Artis : Gangga

Judul : Blue Jeans

Genre : Mellow

Playtime : 10

2. Artis : BTS

Judul : Dynamite

Genre : Kpop

Playtime : 15

3. Artis : One Ok Rock

Judul : The Beginning

Genre : Rock

Playtime : 18

4. Artis : Le Sserafim

Judul : Anti Fragile

Genre : Kpop

Playtime : 100