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Queue.h

```
queue.h X queue.cpp X main.cpp X
1  #ifndef QUEUE_H_INCLUDED
2  #define QUEUE_H_INCLUDED
3  #include <iostream>
4
5  using namespace std;
6
7  #define head(Q) (Q).head
8  #define tail(Q) (Q).tail
9  #define info(P) (P)->info
10 #define next(P) (P)->next
11
12 struct infotype{
13     string artis, judul;
14 };
15
16 typedef struct element *adr;
17
18 struct element{
19     infotype info;
20     adr next;
21 };
22
23 struct playlistLagu{
24     adr head, tail;
25 };
26
27 void createPlaylist_1301210336(playlistLagu &Q);
28 void createElement_1301210336(infotype laguBaru, adr &pLagu);
29 void enqueue_1301210336(playlistLagu &Q, adr pLagu);
30 void dequeue_1301210336(playlistLagu &Q, adr &pLagu);
31 void showSemuaLagu_1301210336(playlistLagu Q);
32
33 #endif // QUEUE_H_INCLUDED
34
```

Queue.cpp

```
queue.h X queue.cpp X main.cpp X
1  #include "queue.h"
2
3  void createPlaylist_1301210336(playlistLagu &Q) {
4      head(Q) = NULL;
5      tail(Q) = NULL;
6  }
7  void createElement_1301210336(infotype laguBaru, adr &pLagu) {
8      pLagu = new element;
9      info(pLagu) = laguBaru;
10     next(pLagu) = NULL;
11 }
12 void enqueue_1301210336(playlistLagu &Q, adr pLagu) {
13     if(head(Q) == NULL) {
14         head(Q) = pLagu;
15         tail(Q) = pLagu;
16     } else {
17         next(tail(Q)) = pLagu;
18         tail(Q) = pLagu;
19     }
20 }
21 void dequeue_1301210336(playlistLagu &Q, adr &pLagu) {
22     adr P;
23     if(head(Q) == NULL) {
24         cout<<"tidak ada lagu !"<<endl;
25     } else {
26         P = head(Q);
27         head(Q) = next(head(Q));
28         next(P) = NULL;
29     }
30 }
31 void showSemuaLagu_1301210336(playlistLagu Q) {
32     adr P = head(Q);
33     if(head(Q) == NULL) {
34         cout<<"tidak ada lagu !"<< endl;
35     } else {
36         while(next(P) != NULL) {
37             cout<<"judul lagu : "<<info(P).judul<<endl;
38             cout<<"judul lagu : "<<info(P).judul<<endl;
39             cout<<"artis : "<<info(P).artis<<endl;
40             cout<<endl;
41             P = next(P);
42         }
43         cout<<"judul lagu : "<<info(P).judul<<endl;
44         cout<<"artis : "<<info(P).artis<<endl;
45         cout<<endl;
46     }
47 }
```

Main.cpp

queue.h X queue.cpp X main.cpp X

```
1  #include <iostream>
2  #include "queue.h"
3
4  using namespace std;
5
6  int main()
7  {
8      playlistLagu Q;
9      infotype laguBaru;
10     adr pLagu;
11
12     createPlaylist_1301210336(Q);
13
14     laguBaru.artis = "Letto";
15     laguBaru.judul = "ruang rindu";
16     createElement_1301210336(laguBaru, pLagu);
17     enqueue_1301210336(Q, pLagu);
18
19     laguBaru.artis = "ari lasso";
20     laguBaru.judul = "hampa";
21     createElement_1301210336(laguBaru, pLagu);
22     enqueue_1301210336(Q, pLagu);
23
24     laguBaru.artis = "ungu";
25     laguBaru.judul = "cinta dalam hati";
26     createElement_1301210336(laguBaru, pLagu);
27     enqueue_1301210336(Q, pLagu);
28
29     laguBaru.artis = "dewa 19";
30     laguBaru.judul = "pupus";
31     createElement_1301210336(laguBaru, pLagu);
32     enqueue_1301210336(Q, pLagu);
33
34     laguBaru.artis = "ada band";
35     laguBaru.judul = "manusia bodoh";
36     createElement_1301210336(laguBaru, pLagu);
37     enqueue_1301210336(Q, pLagu);
```

queue.h X queue.cpp X main.cpp X

```
37     enqueue_1301210336(Q, pLagu);
38
39     laguBaru.artis = "slank";
40     laguBaru.judul = "ku tak bisa";
41     createElement_1301210336(laguBaru, pLagu);
42     enqueue_1301210336(Q, pLagu);
43
44     laguBaru.artis = "iamrud";
45     laguBaru.judul = "pelangi di matamu";
46     createElement_1301210336(laguBaru, pLagu);
47     enqueue_1301210336(Q, pLagu);
48
49     laguBaru.artis = "naff";
50     laguBaru.judul = "izinkan aku";
51     createElement_1301210336(laguBaru, pLagu);
52     enqueue_1301210336(Q, pLagu);
53
54     laguBaru.artis = "rossa";
55     laguBaru.judul = "pudar";
56     createElement_1301210336(laguBaru, pLagu);
57     enqueue_1301210336(Q, pLagu);
58
59     laguBaru.artis = "vegatoz";
60     laguBaru.judul = "kehadiranmu";
61     createElement_1301210336(laguBaru, pLagu);
62     enqueue_1301210336(Q, pLagu);
63
64     laguBaru.artis = "dewa 19";
65     laguBaru.judul = "roman picisan";
66     createElement_1301210336(laguBaru, pLagu);
67     enqueue_1301210336(Q, pLagu);
68
69     laguBaru.artis = "dewa 19";
70     laguBaru.judul = "risalah hati";
71     createElement_1301210336(laguBaru, pLagu);
72     enqueue_1301210336(Q, pLagu);
73
74     laguBaru.artis = "dewa 19";
```

```
queue.h X queue.cpp X main.cpp X
74 laguBaru.artis = "tipe x";
75 laguBaru.judul = "salam rindu";
76 createElement_1301210336(laguBaru, pLagu);
77 enqueue_1301210336(Q, pLagu);
78
79 laguBaru.artis = "cokelat";
80 laguBaru.judul = "karma";
81 createElement_1301210336(laguBaru, pLagu);
82 enqueue_1301210336(Q, pLagu);
83
84 laguBaru.artis = "naff";
85 laguBaru.judul = "kenanglah aku";
86 createElement_1301210336(laguBaru, pLagu);
87 enqueue_1301210336(Q, pLagu);
88
89 laguBaru.artis = "drive";
90 laguBaru.judul = "bersama bintang";
91 createElement_1301210336(laguBaru, pLagu);
92 enqueue_1301210336(Q, pLagu);
93
94 laguBaru.artis = "noah";
95 laguBaru.judul = "mungkin nanti";
96 createElement_1301210336(laguBaru, pLagu);
97 enqueue_1301210336(Q, pLagu);
98
99 cout<<"----- playlist lagu -----"<<endl;
100 showSemuaLagu_1301210336(Q);
101
102 cout<<endl;
103
104 cout<<"----- playlist lagu setelah 10 lagu dihapus -----"<<endl;
105 dequeue_1301210336(Q, pLagu);
106 dequeue_1301210336(Q, pLagu);
107 dequeue_1301210336(Q, pLagu);
108 dequeue_1301210336(Q, pLagu);
109 dequeue_1301210336(Q, pLagu);
110 dequeue_1301210336(Q, pLagu);
111 dequeue_1301210336(Q, pLagu);
112 dequeue_1301210336(Q, pLagu);
113 dequeue_1301210336(Q, pLagu);
114 dequeue_1301210336(Q, pLagu);
115
116 showSemuaLagu_1301210336(Q);
117 return 0;
118 }
119
```

Output

 "C:\Users\T U F\Documents\MY CPP\queue\bin\Debug\queue.exe"

----- playlist lagu -----

judul lagu : ruang rindu

artis : Letto

judul lagu : hampa

artis : ari lasso

judul lagu : cinta dalam hati

artis : ungu

judul lagu : pupus

artis : dewa 19

judul lagu : manusia bodoh

artis : ada band

judul lagu : ku tak bisa

artis : slank

judul lagu : pelangi di matamu

artis : jamrud

judul lagu : izinkan aku

artis : naff

judul lagu : pudar

artis : rossa

judul lagu : kehadiranmu

artis : vegatoz

judul lagu : roman picisan

artis : dewa 19

judul lagu : risalah hati

artis : dewa 19

judul lagu : salam rindu

artis : tipe x

judul lagu : karma

artis : cokelat

judul lagu : kenanglah aku

artis : naff

judul lagu : bersama bintang

artis : drive

judul lagu : mungkin nanti
artis : noah

----- playlist lagu setelah 10 lagu dihapus -----

judul lagu : roman picisan
artis : dewa 19

judul lagu : risalah hati
artis : dewa 19

judul lagu : salam rindu
artis : tipe x

judul lagu : karma
artis : cokelat

judul lagu : kenanglah aku
artis : naff

judul lagu : bersama bintang
artis : drive

judul lagu : mungkin nanti
artis : noah

Process returned 0 (0x0) execution time : 0.080 s
Press any key to continue.