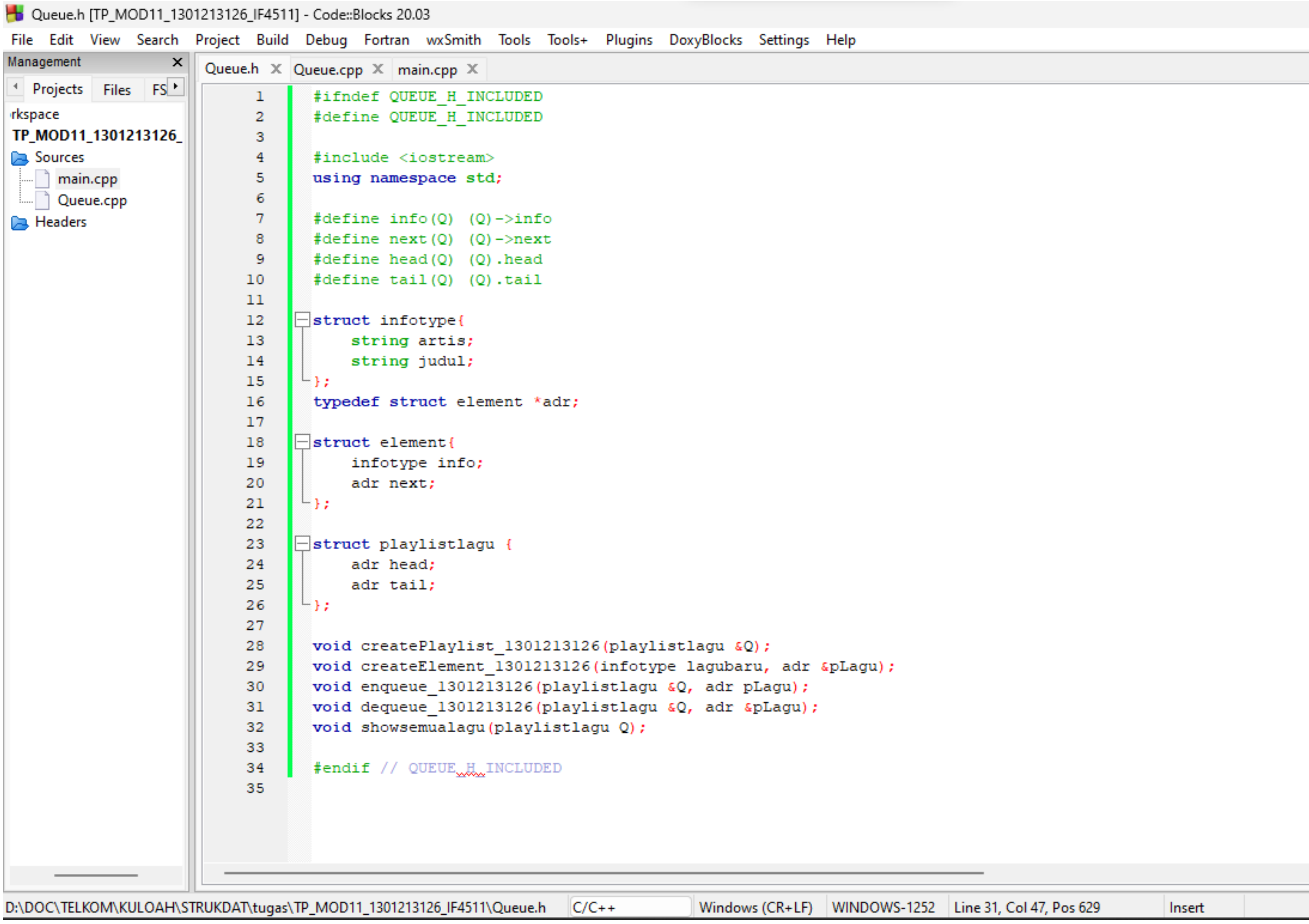
Fadhil Muhamad Pratama 1301213126

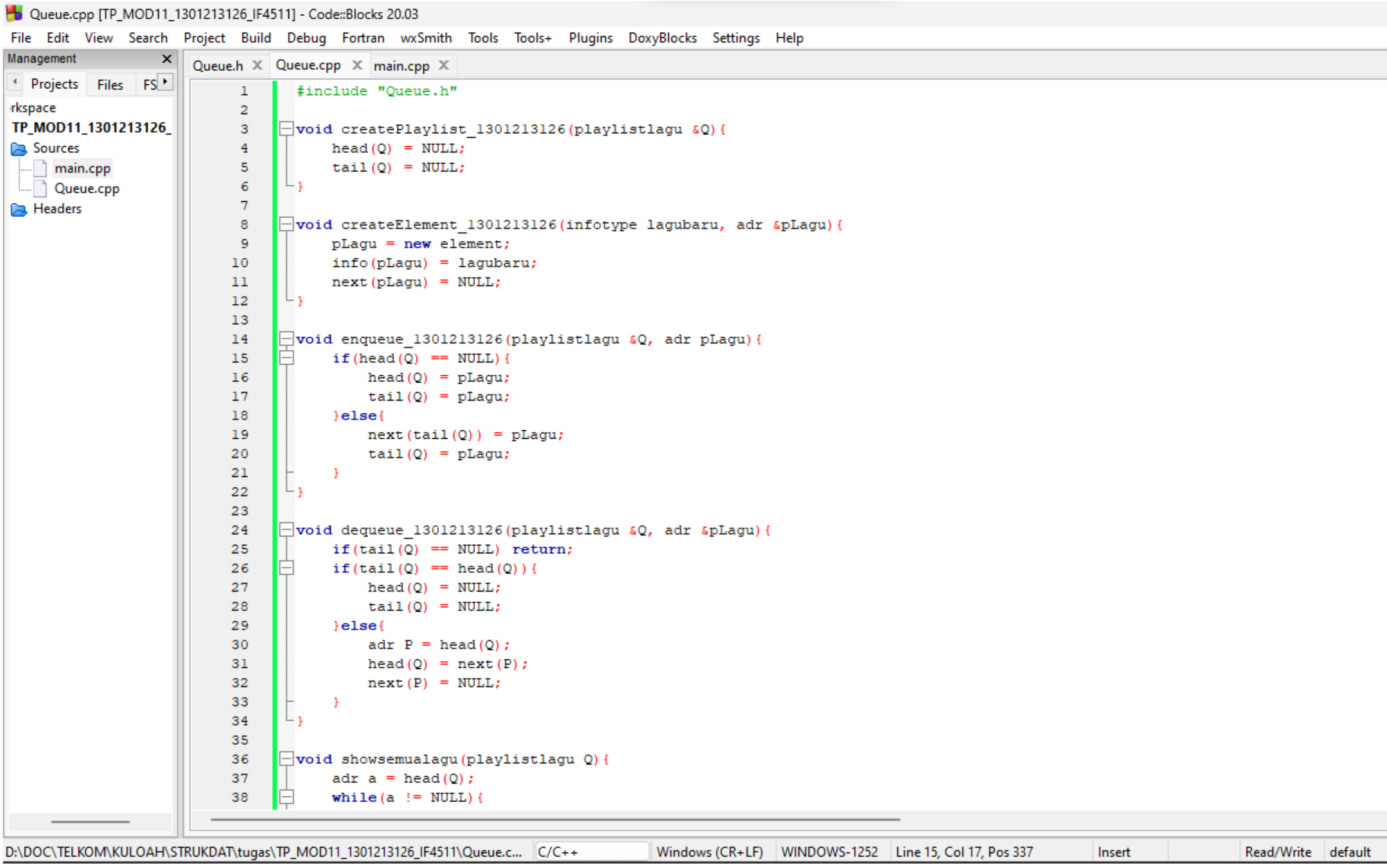
IF4511

Queue.h


Queue.h [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FS
rkspace
TP_MOD11_1301213126_
Sources
main.cpp
Queue.cpp
Headers
Queue.h
Queue.cpp
main.cpp
D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TP_MOD11_1301213126_IF4511\Queue.h
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 31, Col 47, Pos 629
Insert

```cpp
#ifndef QUEUE_H_INCLUDED
#define QUEUE_H_INCLUDED

#include <iostream>
using namespace std;

#define info(Q)  (Q)->info
#define next(Q)  (Q)->next
#define head(Q)  (Q).head
#define tail(Q)  (Q).tail

struct infotype{
    string artis;
    string judul;
};
typedef struct element *adr;

struct element{
    infotype info;
    adr next;
};

struct playlistlagu {
    adr head;
    adr tail;
};

void createPlaylist_1301213126(playlistlagu &Q);
void createElement_1301213126(infotype lagubaru, adr &pLagu);
void enqueue_1301213126(playlistlagu &Q, adr pLagu);
void dequeue_1301213126(playlistlagu &Q, adr &pLagu);
void showsemualagu(playlistlagu Q);

#endif // QUEUE_H_INCLUDED
```

Queue.cpp


Queue.cpp [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
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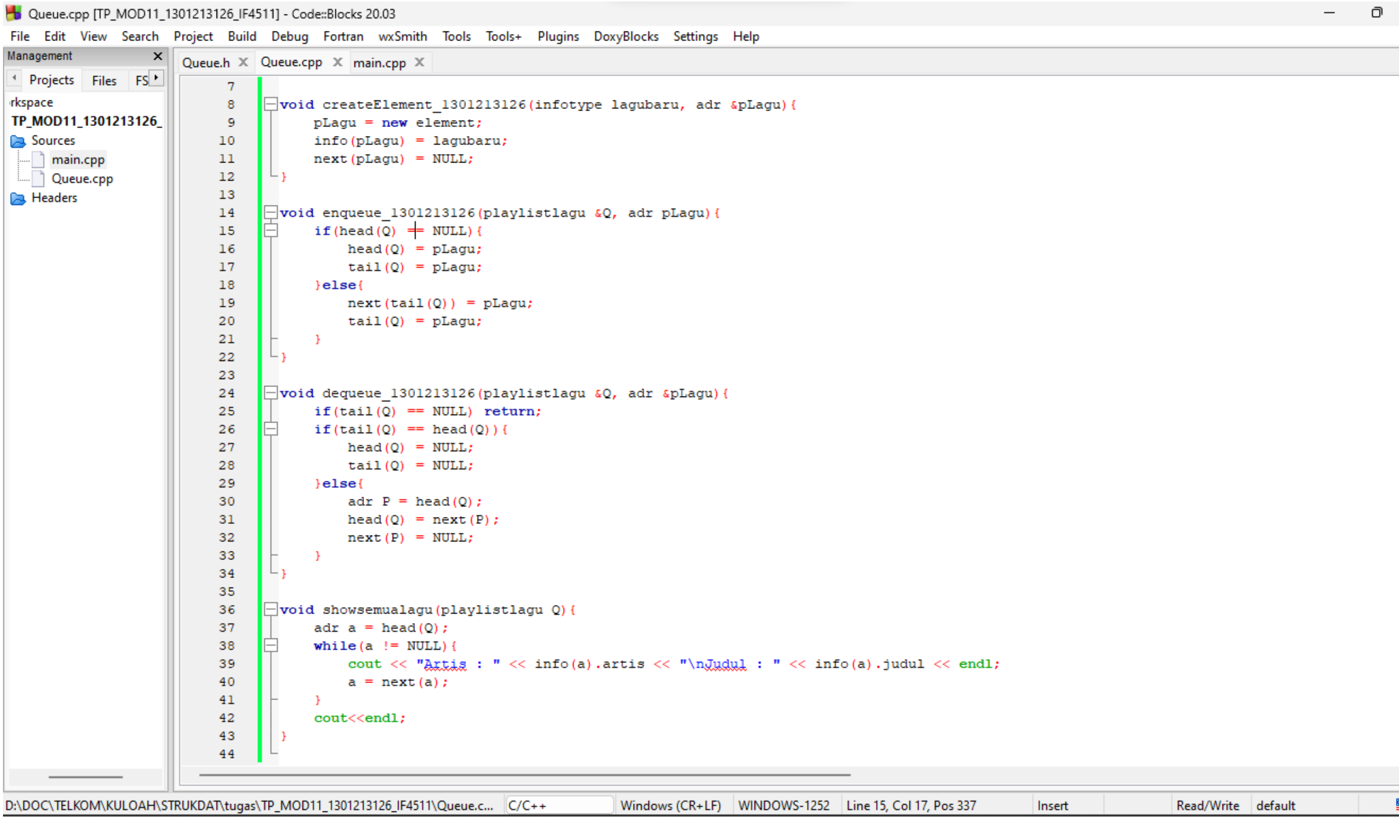
rkspace
TP_MOD11_1301213126_
Sources
main.cpp
Queue.cpp
Headers
Queue.h Queue.cpp main.cpp

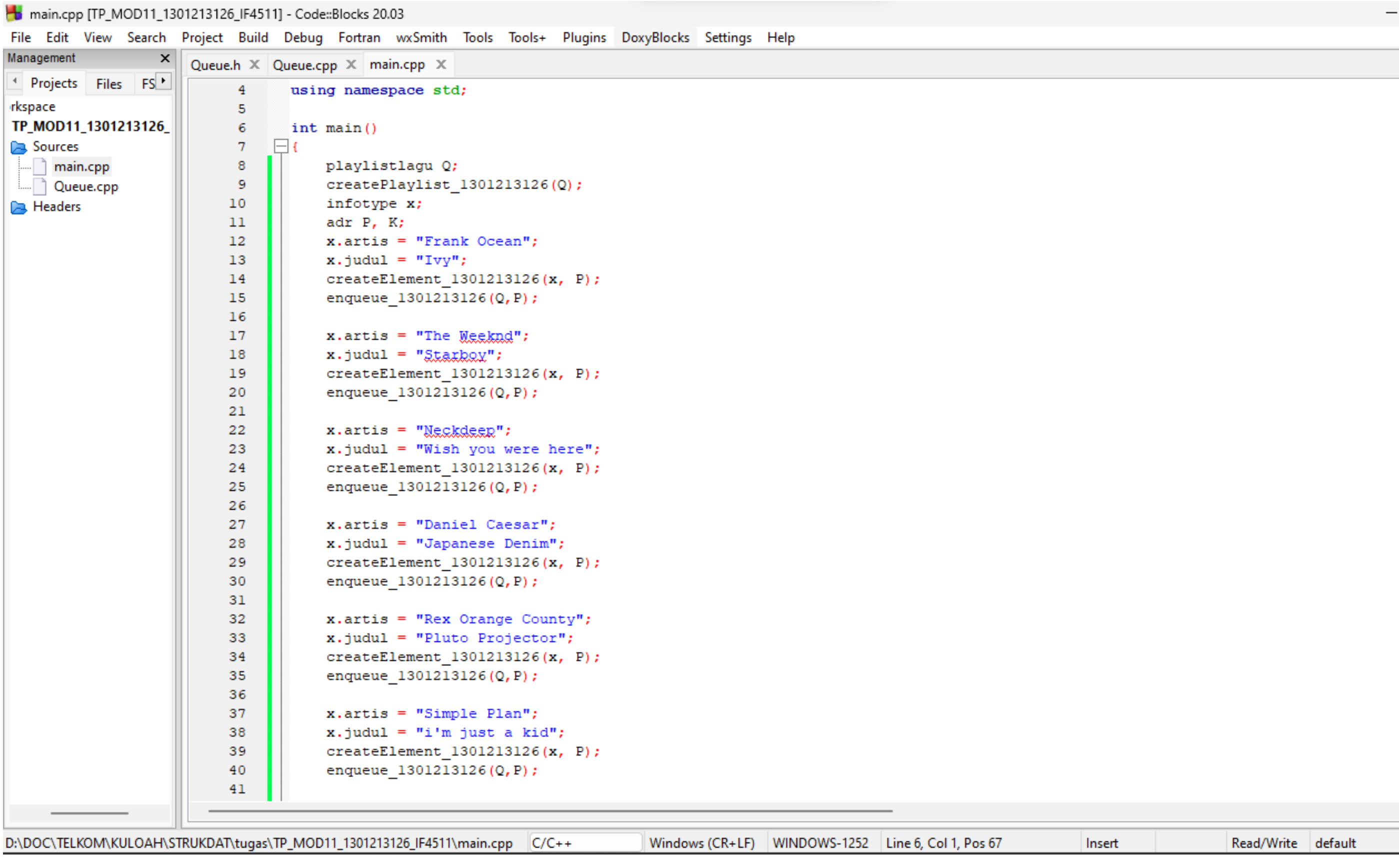
```cpp
#include "Queue.h"

void createPlaylist_1301213126(playlistlagu &Q){
    head(Q) = NULL;
    tail(Q) = NULL;
}

void createElement_1301213126(infotype lagubaru, adr &pLagu){
    pLagu = new element;
    info(pLagu) = lagubaru;
    next(pLagu) = NULL;
}

void enqueue_1301213126(playlistlagu &Q, adr pLagu){
    if(head(Q) == NULL){
        head(Q) = pLagu;
        tail(Q) = pLagu;
    }else{
        next(tail(Q)) = pLagu;
        tail(Q) = pLagu;
    }
}

void dequeue_1301213126(playlistlagu &Q, adr &pLagu){
    if(tail(Q) == NULL) return;
    if(tail(Q) == head(Q)){
        head(Q) = NULL;
        tail(Q) = NULL;
    }else{
        adr P = head(Q);
        head(Q) = next(P);
        next(P) = NULL;
    }
}

void showsemualagu(playlistlagu Q){
    adr a = head(Q);
    while(a != NULL){
```

D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TP_MOD11_1301213126_IF4511\Queue.c...
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 15, Col 17, Pos 337
Insert
Read/Write
default


Queue.cpp [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FS
rkspace
TP_MOD11_1301213126_
Sources
main.cpp
Queue.cpp
Headers
Queue.h Queue.cpp main.cpp

```cpp

void createElement_1301213126(infotype lagubaru, adr &pLagu){
    pLagu = new element;
    info(pLagu) = lagubaru;
    next(pLagu) = NULL;
}

void enqueue_1301213126(playlistlagu &Q, adr pLagu){
    if(head(Q) == NULL){
        head(Q) = pLagu;
        tail(Q) = pLagu;
    }else{
        next(tail(Q)) = pLagu;
        tail(Q) = pLagu;
    }
}

void dequeue_1301213126(playlistlagu &Q, adr &pLagu){
    if(tail(Q) == NULL) return;
    if(tail(Q) == head(Q)){
        head(Q) = NULL;
        tail(Q) = NULL;
    }else{
        adr P = head(Q);
        head(Q) = next(P);
        next(P) = NULL;
    }
}

void showsemualagu(playlistlagu Q){
    adr a = head(Q);
    while(a != NULL){
        cout << "Artis : " << info(a).artis << "\nJudul : " << info(a).judul << endl;
        a = next(a);
    }
    cout<<endl;
}

```

Main.cpp



main.cpp [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FS
rkspace
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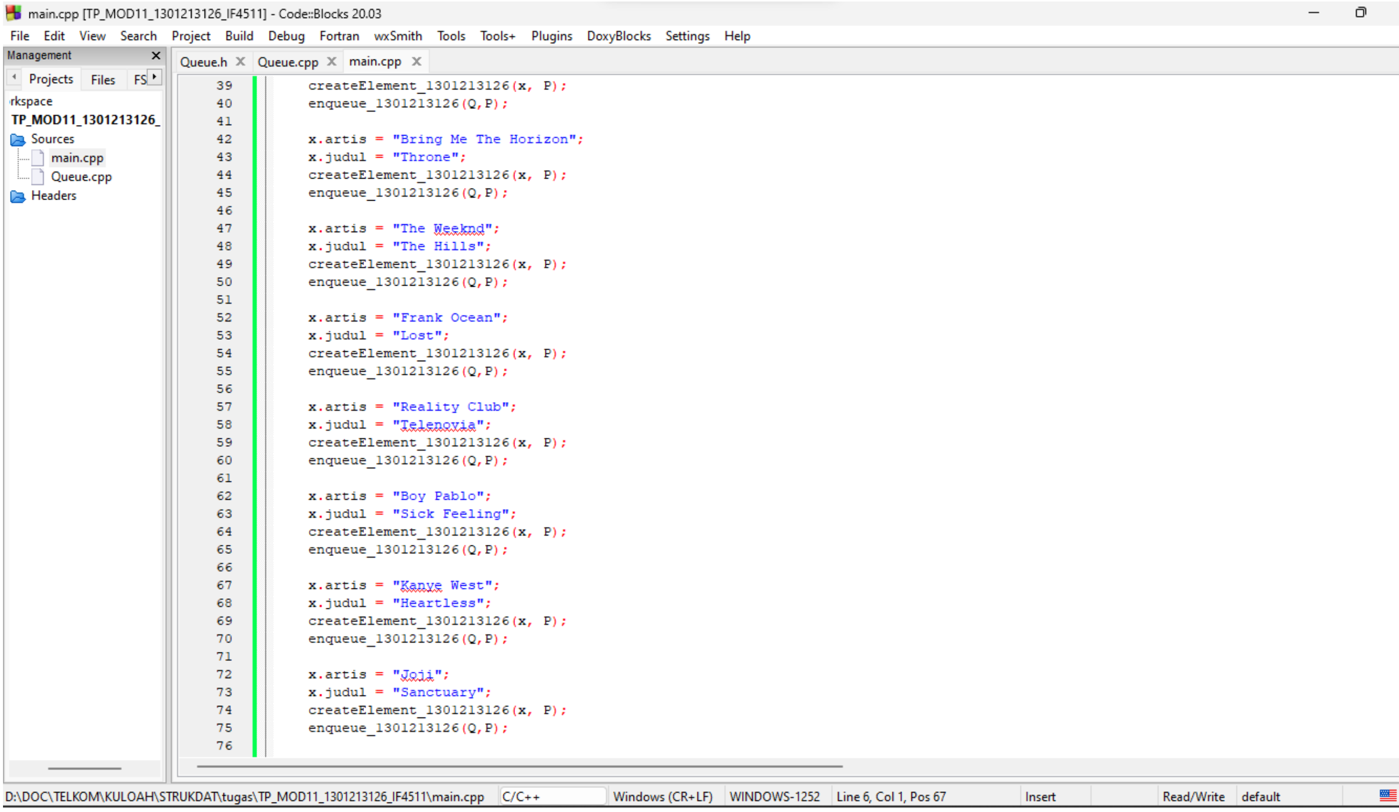
Sources
main.cpp
Queue.cpp
Headers
Queue.h Queue.cpp main.cpp
D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TP_MOD11_1301213126_IF4511\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 6, Col 1, Pos 67 Insert Read/Write default

```cpp
using namespace std;

int main()
{
    playlistlagu Q;
    createPlaylist_1301213126(Q);
    infotype x;
    adr P, K;
    x.artis = "Frank Ocean";
    x.judul = "Ivy";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "The Weeknd";
    x.judul = "Starboy";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Neckdeep";
    x.judul = "Wish you were here";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Daniel Caesar";
    x.judul = "Japanese Denim";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Rex Orange County";
    x.judul = "Pluto Projector";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Simple Plan";
    x.judul = "i'm just a kid";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

```



main.cpp [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
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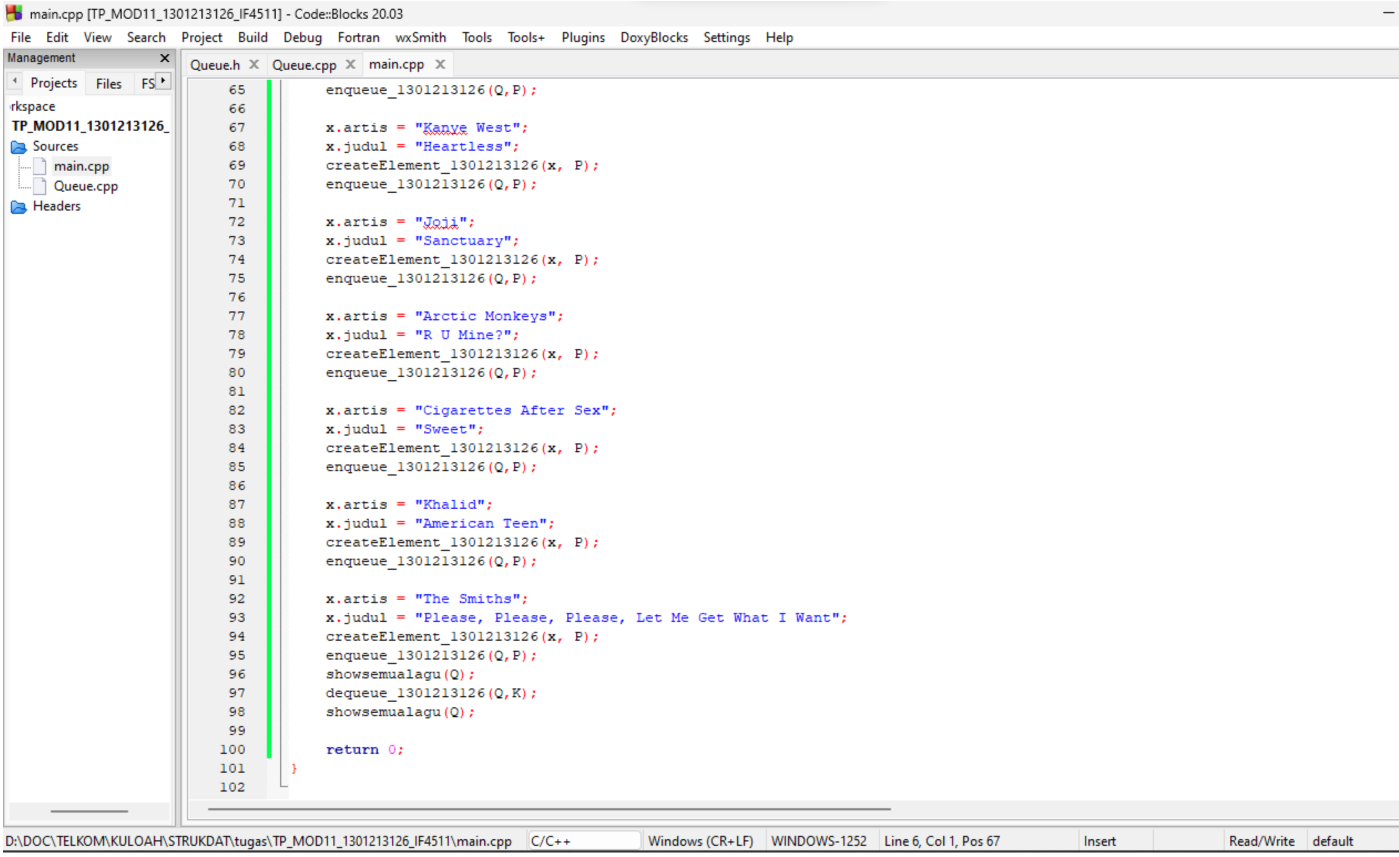
D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TP_MOD11_1301213126_IF4511\main.cpp C/C++ Windows (CR+LF) WINDOWS-1252 Line 6, Col 1, Pos 67 Insert Read/Write default

```cpp
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Bring Me The Horizon";
    x.judul = "Throne";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "The Weeknd";
    x.judul = "The Hills";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Frank Ocean";
    x.judul = "Lost";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Reality Club";
    x.judul = "Telenovia";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Boy Pablo";
    x.judul = "Sick Feeling";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Kanye West";
    x.judul = "Heartless";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Joji";
    x.judul = "Sanctuary";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

```


main.cpp [TP_MOD11_1301213126_IF4511] - Code::Blocks 20.03
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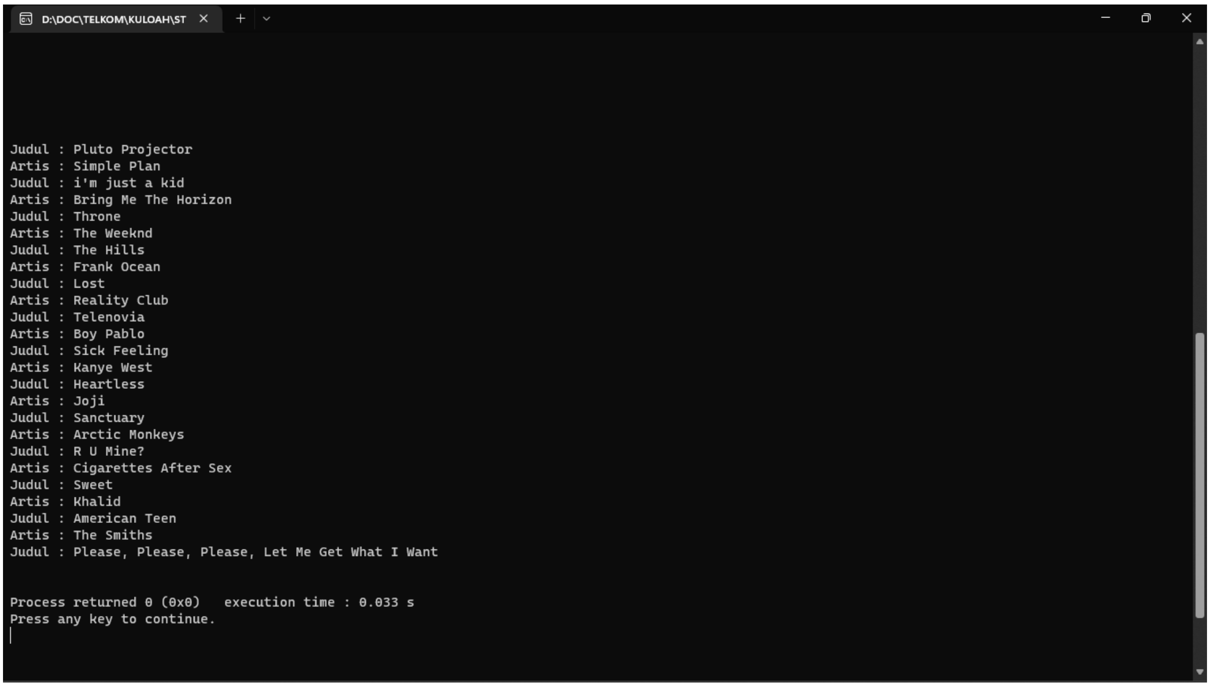
D:\DOC\TELKOM\KULOAH\STRUKDAT\tugas\TP_MOD11_1301213126_IF4511\main.cpp
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 6, Col 1, Pos 67
Insert
Read/Write
default

```
    enqueue_1301213126(Q,P);

    x.artis = "Kanye West";
    x.judul = "Heartless";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Joji";
    x.judul = "Sanctuary";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Arctic Monkeys";
    x.judul = "R U Mine?";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Cigarettes After Sex";
    x.judul = "Sweet";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "Khalid";
    x.judul = "American Teen";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);

    x.artis = "The Smiths";
    x.judul = "Please, Please, Please, Let Me Get What I Want";
    createElement_1301213126(x, P);
    enqueue_1301213126(Q,P);
    showsemualagu(Q);
    dequeue_1301213126(Q,K);
    showsemualagu(Q);

    return 0;
}
```

Output



```
Judul : Pluto Projector
Artis : Simple Plan
Judul : i'm just a kid
Artis : Bring Me The Horizon
Judul : Throne
Artis : The Weeknd
Judul : The Hills
Artis : Frank Ocean
Judul : Lost
Artis : Reality Club
Judul : Telenovia
Artis : Boy Pablo
Judul : Sick Feeling
Artis : Kanye West
Judul : Heartless
Artis : Joji
Judul : Sanctuary
Artis : Arctic Monkeys
Judul : R U Mine?
Artis : Cigarettes After Sex
Judul : Sweet
Artis : Khalid
Judul : American Teen
Artis : The Smiths
Judul : Please, Please, Please, Let Me Get What I Want


Process returned 0 (0x0)   execution time : 0.033 s
Press any key to continue.
```