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Prodi : D4 Manajemen Informatika 2019A

Tugas | Double Linked List

1. Double Linked List Non Circular

Perhatikan script code double linked list non Circular berikut ini dan tuliskan urutan langkah Output node nya!

```
#include<iostream>
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

typedef struct node
{
    int data;
    node* prev;
    node* next;
};

int main()
{
    node *head;
    node *tail;
    node *n;

    n= new node;
    n->data = 1;
    n->prev=NULL;
    head = n;
    tail = n;

    n= new node;
    n->data = 2;
    n->prev = tail;
    tail->next = n;
    tail=n;

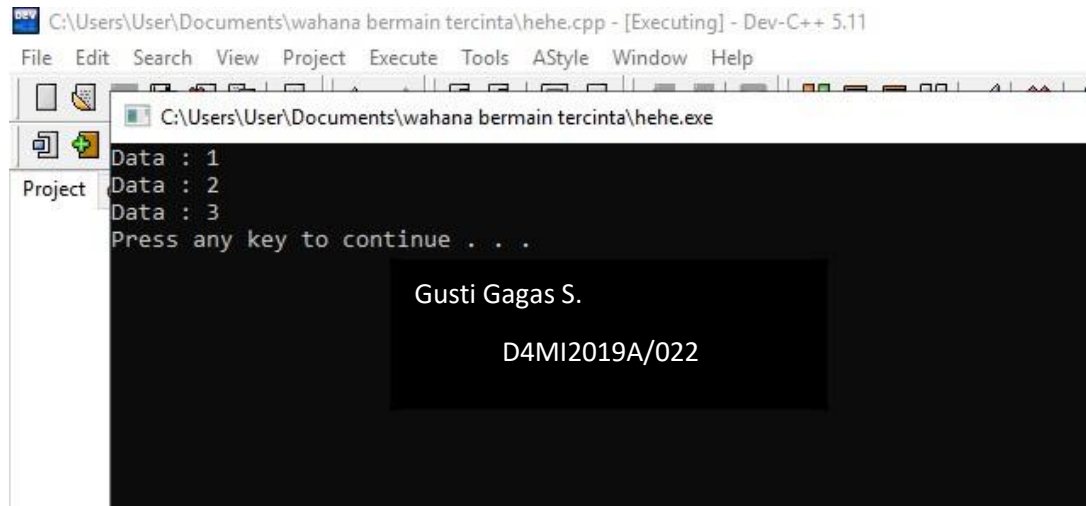
    n=new node;
    n->data = 3;
    n->prev = tail;
    tail->next= n;
    tail=n;

    tail->next=NULL;

    tail = head ;

    while( tail!= NULL ){
        cout << "Data : " << tail->data << endl;
        tail = tail->next;
    }
    system("PAUSE");
    return 0;
}
```

Output :



```
C:\Users\User\Documents\wahana bermain tercinta\hehe.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
C:\Users\User\Documents\wahana bermain tercinta\hehe.exe
Data : 1
Data : 2
Data : 3
Press any key to continue . . .
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```

1) Tulis keluarannya jika ditambahkan statement berikut!

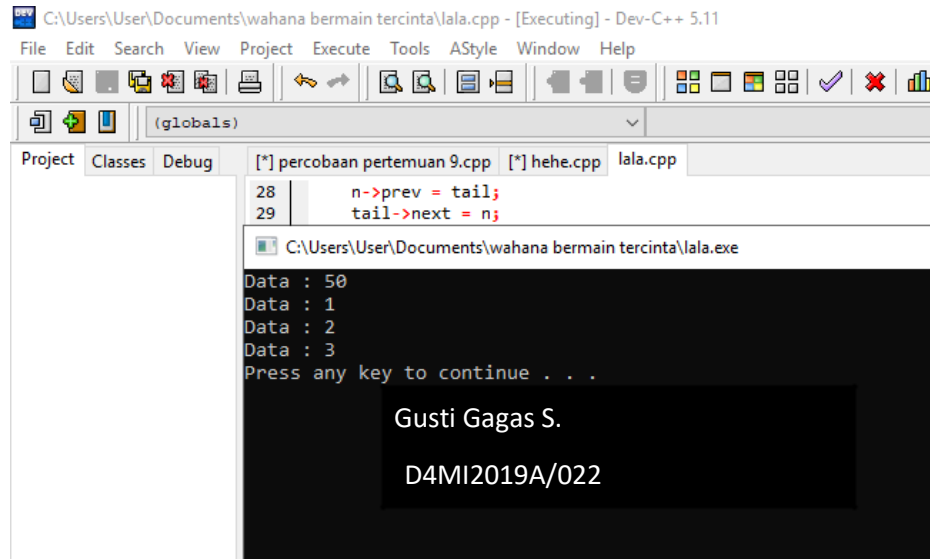
```
n=new node;
n->data=50;
n->prev=NULL;
n->next = head;
head->prev = n;
head = n;

tail->next=NULL;

tail = head ;

while( tail!= NULL ){
    cout << "Data : " << tail->data << endl;
    tail = tail->next;
}
system("PAUSE");
return 0;
}
```

Di dalam script tertulis bahwa data 50 menjadi head sehingga output menjadi:



```
C:\Users\User\Documents\wahana bermain tercinta\lala.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes Debug [*] percobaan pertemuan 9.cpp [*] hehe.cpp lala.cpp
28 n->prev = tail;
29 tail->next = n;
C:\Users\User\Documents\wahana bermain tercinta\lala.exe
Data : 50
Data : 1
Data : 2
Data : 3
Press any key to continue . . .
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```

2) Tulis keluarannya jika ditambahkan statement berikut!

```
node *bantu, *bantu2;

n=new node;
n->data=9;
n->prev=NULL;
n->next=NULL;
bantu = head;

while(bantu->data != 2)
{
    bantu = bantu->next;}

bantu2 = bantu->next;
n->next = bantu2;
bantu2->prev = n;
bantu->next = n;
n->prev = bantu;

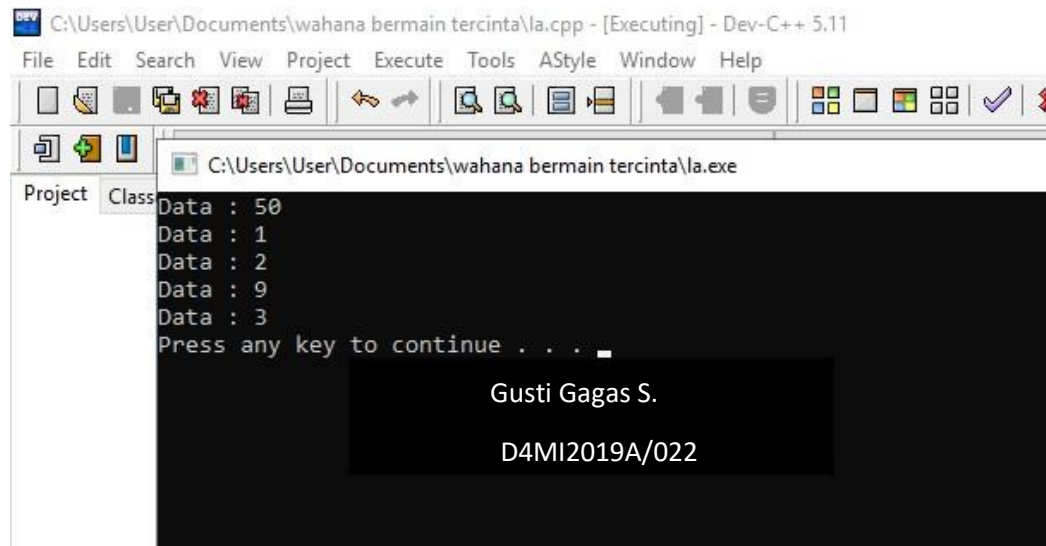
tail->next=NULL;

tail = head ;

while( tail!= NULL ){
    cout << "Data : " << tail->data << endl;
    tail = tail->next;
}

system("PAUSE");
return 0;
```

Di dalam script tertulis bahwa data 9 berada di tengah, sehingga output menjadi:



```
C:\Users\User\Documents\wahana bermain tercinta\la.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
C:\Users\User\Documents\wahana bermain tercinta\la.exe
Project Class
Data : 50
Data : 1
Data : 2
Data : 9
Data : 3
Press any key to continue . . . .
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```

3) Tulis keluarannya jika ditambahkan statement berikut!

```
while(bantu->data != 2)
{
    bantu = bantu->next;
}

bantu2 = bantu->next;
n->next = bantu2;
bantu2->prev = n;
bantu->next = n;
n->prev = bantu;

hapus = head;
head = head->next;
head->prev = NULL;
delete hapus;

tail->next=NULL;

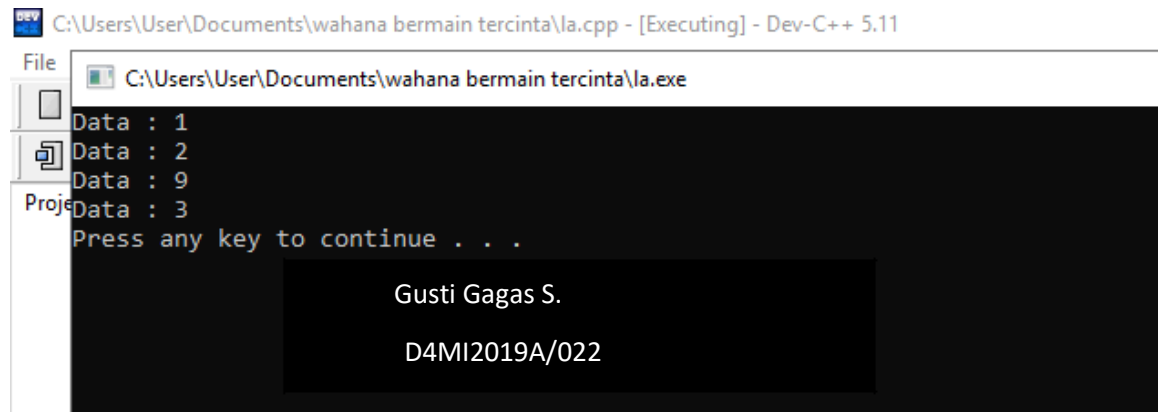
tail = head ;

while( tail!= NULL ){
    cout << "Data : " << tail->data << endl;
    tail = tail->next;
}

}
```

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Di dalam script tertulis bahwa head dihapus, sehingga output menjadi:



The screenshot shows a Dev-C++ 5.11 console window. The title bar reads "C:\Users\User\Documents\wahana bermain tercinta\la.cpp - [Executing] - Dev-C++ 5.11". The console output is as follows:




```
File C:\Users\User\Documents\wahana bermain tercinta\la.exe
Data : 1
Data : 2
Data : 9
Data : 3
Press any key to continue . . .
```

Below the console output, there is a black rectangular box containing the text:

```
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```

2. Double Linked List Circular

Perhatikan script code double linked list Circular sederhana berikut ini dan tuliskan urutan langkah Output node nya!



```
#include<iostream>
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>

//linked list circular
typedef struct node{
    int data;
    node* prev;
    node* next;
};

int main()
{
    node* head;
    node* tail;
    node* n;
    node* bantu;

    n = new node;
    n->next = n;
    n->prev = n;
    n->data = 5;

    head = tail = n;

    n = new node;
    n->next = n;
    n->prev = n;
    n->data = 8;

    tail->next = n;
    n->prev = tail;
    tail = n;

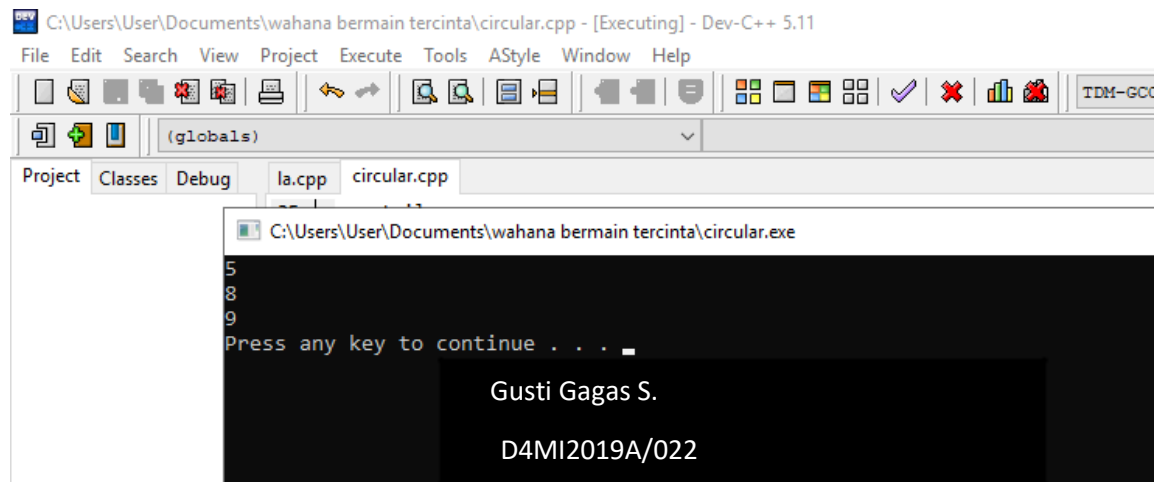
    tail->next = head;
    head->prev = tail;

    bantu = head;
    do
    {
        cout<<bantu->data;
        bantu = bantu->next;
    } while(bantu!=head);

    system("PAUSE");
    return 0;
}
```

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Output :



```
C:\Users\User\Documents\wahana bermain tercinta\circular.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes Debug la.cpp circular.cpp
C:\Users\User\Documents\wahana bermain tercinta\circular.exe
5
8
9
Press any key to continue . . .
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```