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PRODI   : D4 MANAJEMEN INFORMATIKA 'A

TUGAS PERTEMUAN 8 – DOUBLE LINKED LIST

Tuliskan Output dari Script berikut :

1.


```cpp
#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 : 1 -> 2 -> 3

```cpp
#include <iostream>
#include <stdio.h>
#include <conio.h>
#include <stdlib.h>
using namespace std;

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;
```

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```
Data : 1
Data : 2
Data : 3
Press any key to continue . . .
```

2.

Tuliskan keluarannya, jika ditambahkan statement berikut !

```cpp
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;
}
```

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Output : 50 -> 1 -> 2 -> 3

```cpp
#include <iostream>
#include <stdio.h>
#include <conio.h>
#include <stdlib.h>
using namespace std;

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;
```

```
E:\Kuliah\TUGAS karena CORONA\Struktur data\DoubleLinked\Output_2_027.exe
Data : 50
Data : 1
Data : 2
Data : 3
Press any key to continue . . .
```

3.

Tuliskan keluarannya, jika ditambahkan statement berikut !

```cpp
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;

}
```

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Output : 50 -> 1 -> 2 -> 9 -> 3

```cpp
1   #include <iostream>
2   #include <stdio.h>
3   #include <conio.h>
4   #include <stdlib.h>
5   using namespace std;
6
7   typedef struct node
8   {
9       int data;
10      node* prev;
11      node* next;
12  };
13
14  int main()
15  {
16      node *head;
17      node *tail;
18      node *n;
19
20      n = new node;
21      n -> data = 1;
22      n -> prev = NULL;
23      head = n;
24      tail = n;
25
26      n = new node;
27      n -> data = 2;
28      n -> prev = tail;
29      tail -> next = n;
30      tail = n;
31
32      n = new node;
33      n -> data = 3;
```

E:\Kuliah\TUGAS karena CORONA\Struktur data\DoubleLinked\Output_3_027.exe

```
Data : 50
Data : 1
Data : 2
Data : 9
Data : 3
Press any key to continue . . .
```

4.

Tuliskan keluarannya, jika ditambahkan statement berikut !

```cpp
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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Output : 1 -> 2 -> 9 -> 3

```cpp
#include <iostream>
#include <stdio.h>
#include <conio.h>
#include <stdlib.h>
using namespace std;

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;
```

Console output (E:\Kuliah\TUGAS karena CORONA\Struktur data\DoubleLinked\Output_4_027.exe):

```
Data : 1
Data : 2
Data : 9
Data : 3
Press any key to continue . . .
```

5.


```cpp
#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;
```

```cpp
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;
```

```cpp
n = new node;
n->next = n;
n->prev = n;
n->data = 9;

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 : 5 -> 8 -> 9

Output_5_Circular_027.cpp

```cpp
1   #include <iostream>
2   #include <stdio.h>
3   #include <conio.h>
4   #include <stdlib.h>
5   using namespace std;
6   // Mendeklarasikan struct
7   typedef struct node
8   {
9       int data;
10      node* prev;
11      node* next;
12  };
13
14  int main()
15  {
16      node* head;
17      node* tail;
18      node* n;
19      node* bantu;
20
21      n = new node;
22      n -> next = n;
23      n -> prev = n;
24      n -> data = 5;
25
26      head = tail = n;
27
28      n = new node;
29      n -> next = n;
30      n -> prev = n;
31      n -> data = 8;
32
33      tail -> next = n;
```

E:\Kuliah\TUGAS karena CORONA\Struktur data\DoubleLinked\Output_5_Circular_027.exe

```
589Press any key to continue . . .
```