

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

Struct node
{
    int data;
    Struct node* prev;
    Struct node* next;
};

Struct node* insertatbeg (Struct node* head,
int val)
{
    Struct node* temp;
    temp = (Struct node*) malloc (sizeof(Struct node));
    temp->next = NULL;
    temp->prev = NULL;
    temp->data = val;
    If (head == NULL)
    {
        head = temp;
        return head;
    }
    else
    {
        temp->next = head;
        head->prev = temp;
        head = temp;
        return head;
    }
}
```

struct node \* insertatend ( struct node \* head,  
int value ) {

struct node \* temp;

\*temp = ( struct node \* ) malloc( sizeof( struct  
node ) );

temp->prev = NULL;

temp->data = value;

temp->next = NULL;

if ( head == NULL ) {

head = temp;

}

else {

struct node \* ptr = head;

while ( ( ptr->next ) != NULL )

{

ptr = ptr->next;

}

temp->prev = ptr;

ptr->next = temp;

}

return head;

}

void printdata ( struct node \* head )

{

struct node \* ptr = head;

while (ptr != NULL)

{

printf ("%d\n", ptr->data);

ptr = ptr->next;

}

printf ("-----");

}

struct node \* temp;

~~temp = (struct node\*) malloc (size of (struct node));~~

~~temp->prev = NULL;~~

~~temp->data = value;~~

~~temp->next = NULL;~~

struct node \* p1, \* p2;

p1 = head;

pos--;

while (pos != 0) {

p2 = p1->next;

pos--;

}

ptr2 = p1->next;

temp->prev = p1;

temp->next = p1->next;

p1->next = temp;

p1->prev = temp;

return head;

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```
void deval (Struct node* head, int value)
{
```

```
    If (head == NULL)
```

```
{
```

```
    printf ("empty\n");
```

```
}
```

```
else
```

```
{
```

```
Struct node* pnode = head;
```

```
while (pnode != NULL & & pnode->data != value)
```

```
{
```

```
    pnode = pnode->next;
```

```
}
```

```
If (pnode == NULL)
```

```
{
```

~~```
Struct node* pnode2 = pnode->next;
```~~~~```
pnode2->prev = pnode->prev;
```~~~~```
pnode->prev->next = pnode2;
```~~~~```
free (pnode);
```~~~~```
{
```~~

```
else
```

```
{
```

```
printf ("not found");
```

```
}
```

```
}
```

```
int main()
```

{

```
struct node * head = NULL;
```

```
head = insertatbeg (head, 30);
```

```
head = insertatbeg (head, 45);
```

```
Printdata (head);
```

```
head = insertatbeg (head, 56);
```

```
head = insertatend (head, 75);
```

```
Printdata (head);
```

```
head = insertbefore (head, 11, 2);
```

```
Printdata (head);
```

~~```
delet (head, 45);
```~~~~```
Printdata (head);
```~~

}

45

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56

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56

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11

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75

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56

11

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75

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