

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

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

```
struct node
```

```
{
```

```
    int data;
```

```
    struct node* next;
```

```
} *head = NULL, *tail = NULL;
```

```
void create()
```

```
{
```

```
    int n;
```

```
    int i = 1;
```

```
    printf("Enter the Size= ");
```

```
    scanf("%d", &n);
```

```
    while (i <= n)
```

```
    {
```

```
        int value;
```

```
printf("Enter the value= ");
scanf("%d", &value);
struct node* newnode;
newnode = (struct node*)malloc(sizeof(struct node));
newnode->data = value;
newnode->next = NULL;
if (head == NULL)
{
    head = newnode;
    tail = newnode;
}
else
{
    tail->next = newnode;
    tail = newnode;
}
i++;
}
}

void insertAtfirst()
```

```
{  
    int value;  
    printf("Enter the value do you insert= \n");  
    scanf("%d", &value);  
    struct node* newnode;  
    newnode = (struct node*)malloc(sizeof(struct node));  
    newnode->data = value;  
    newnode->next = head;  
    head=newnode;  
}
```

```
void insertAtlast()
```

```
{  
  
    int value;  
    printf("Enter the value do you insert= \n");  
    scanf("%d", &value);  
    struct node* newnode;  
    newnode = (struct node*)malloc(sizeof(struct node));  
    newnode->data = value;  
    newnode->next=NULL;
```

```
if (head == NULL)
{
    head = newnode;
    tail = newnode;
}
else
{
    tail->next = newnode;
    tail = newnode;
}
```

```
}
```

```
void insertAtspecificpos()
```

```
{
    int i=1;
    int n;
    struct node *ptr;
    ptr=head;
    printf("Enter your position= ");
```

```
scanf("%d",&n);
while(i<n-1)
{
    ptr=ptr->next;
    i++;

}
int value;
printf("Enter the value do you insert= \n");
scanf("%d", &value);
struct node* newnode;
newnode = (struct node*)malloc(sizeof(struct node));
newnode->data = value;
newnode->next=ptr->next;
ptr->next=newnode;
}
void deleteAtfirst(){
struct node*temp;
temp=head;
head=head->next;
```

```
free(temp);  
}  
void deleteAtlast(){  
    int i=1;  
    struct node *ptr;  
    ptr=head;  
    while(ptr->next!=tail){  
        ptr=ptr->next;  
        i++;  
  
    }  
    ptr->next=NULL;  
    tail=ptr;  
  
}  
void deleteAtspic(){  
    int n;  
    int i=1;  
    struct node*temp;
```

```
temp=head;
printf("Enter the positon = ");
scanf("%d",&n);
while(i<n-1){
temp=temp->next;
    i++;
}
temp->next=temp->next->next;

}
```

```
void traverse()
{
    struct node* ptr;
    ptr = head;
    while (ptr != NULL)
    {
        printf("%d->", ptr->data);
        ptr = ptr->next;
    }
```

```
    printf("NULL");  
}
```

```
int main()  
{  
    create();  
    //insertAtlast();  
    // insertAtspecificpos();  
    deleteAtspic();  
    traverse();  
  
    return 0;  
}
```