

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

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IBM19CS043

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```
struct node
{
    int data;
    struct node *next;
};

struct node *head = NULL;

void display();
void delFun();
void insert();

int main()
{
    int ch, c;
    do
    {
        printf("\n 1. Create & insert \n 2. Display \n 3. Delete \n 4. Exit\n");
        printf("\n Enter your choice :");
        scanf("%d", &c);
        switch (c)
        {
            case 1: insert(); break;
            case 2: display(); break;
            case 3: delFun(); break;
            default: if (c != 4)
                printf("invalid option");
        }
    } while (c != 5);
}
```

Rathod

void display()

{ struct node *ptr = NULL;

ptr = head;

if (ptr == NULL)

{ printf("Nothing to print\n");

return;

{

while (ptr != NULL)

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

ptr = ptr->next;

}

void delFun()

{ struct node *temp, *del = NULL;

if (head == NULL)

{ printf("Empty List. Can't delete\n");

return;

temp = head;

int ch, ele;

printf("Delete at \n1. Front \n2. Back \n3. Desired element

\n Enter choice: ");

scanf("%d", &ch);

switch (ch)

{ case 1 : del = head;

head = head->next;

printf("Node deleted\n");

break;

case 2: while (temp->next->next != NULL)

{ temp = temp->next; y

del = temp->next;

temp->next = NULL;

printf("Node Deleted\n");

break;

case 3: printf("Enter the element to delete\n");

scanf("%d", &ele);

if (head->data == ele)

{ head = head->next; y

else

while (temp->next != NULL)

{ if (temp->next->data == ele)

{ del = temp->next;

if (del->next == NULL)

temp->next = NULL;

else

temp->next = del->next;

y y

if (del == NULL)

{ printf("Element not found in the list\n");

return; y y

void insert()

{ struct node *~~new~~temp, *newnode;

int item;

new node = (struct node *) malloc (sizeof (struct node));

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

```
new node → data = item;
```

```
if (head == NULL)
```

```
{ head = newnode; }
```

```
else
```

```
{ temp = head;
```

```
while (temp → next != NULL)
```

```
{ temp = temp → next; }
```

```
temp → next = newnode;
```

```
printf("Node created\n");
```

```
g g
```