

# LAB PROGRAM - 9 : doubly linked list

struct node

{

int data;

struct node \*prev, \*next;

};

void insertFront ( struct node \*\*headptr, int value)

{

struct node \*newnode;

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

newnode->data = value;

newnode->next = NULL;

newnode->prev = NULL;

if (\*headptr == NULL)

\*headptr = newnode;

else

{

newnode->next = \*headptr;

(\*headptr)->prev = newnode;

\*headptr = newnode;

}

}

void delFront (struct node \*\*headptr, int value)

{

struct node \*temp, \*del;

temp = \*headptr;

if (temp == NULL)

{  
printf ("The list is empty !!! \n");  
return;

}

else if (temp->next == NULL)

{ \*headptr = NULL;

}

else

{

if ((\*headptr)->data == value)

{ (\*headptr) = (\*headptr)->next;

(\*headptr)->prev = NULL;

printf ("The value has been deleted \n");  
return;

}

```
while (temp → next != NULL)
```

```
{ if (temp → next) → data == value)
```

```
{ del = temp → next;
```

```
temp → next = del → next;
```

```
(temp → next) → prev = temp;
```

```
printf ("The value has been deleted!\n");
```

```
return;
```

```
}
```

```
temp = temp → next;
```

```
}
```

```
printf ("Element was not found!\n");
```

```
}
```