

Double Link List

```
void insertbeg()
```

```
{
```

```
    struct node *newnode;
```

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

```
    printf("Enter the item\n");
```

```
    scanf("%d", &newnode->data);
```

```
    newnode->next = NULL;
```

```
    newnode->prev = NULL;
```

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

```
    {
```

```
        head = newnode;
```

```
    }
```

```
    else {
```

```
        newnode->next = head;
```

```
        head->prev = newnode;
```

```
        head = newnode;
```

```
    }
```

```
}
```

Void insert-end() {

struct node *new-node, *temp;

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

printf("Enter the item\n");

scanf("%d", &new-node->data);

new-node->next = NULL;

new-node->prev = NULL;

if (head == NULL) {

head = new-node;

} else {

temp = head;

while (temp->next != NULL)

temp = temp->next;

temp->next = new-node;

new-node->prev = temp;

}

}

Void insert-between() {

int listele;

struct node *new-node, *temp;

printf("Enter the element in the list\n");

scanf("%d", &listele);


```

new-node = (struct node *) malloc (sizeof (struct node));
printf ("Enter the new node data\n");
scanf ("%d", &new-node->data);
new-node->next = NULL;
new-node->prev = NULL;
if (head == NULL) {
    printf ("Empty list\n");
    return;
}

```

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```

temp = head;
while (temp->data != listele) {
    temp = temp->next;
    if (temp == NULL) {
        printf ("element is not in the list\n");
        return;
    }
}

```

3

3

```

new-node->next = temp->next;
temp->next = new-node;
new-node->prev = temp;
new-node->next->prev = new-node;

```

3

```
void del()
```

```
{
```

```
    struct node *temp;
```

```
    int ele;
```

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

```
        printf("Empty list\n"); return;
```

```
}
```

```
    printf("Enter the element to be deleted\n");
```

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

```
    temp = head;
```

```
    while (temp->data != ele) {
```

```
        temp = temp->next;
```

```
        if (temp == NULL) {
```

```
            printf("Element is not in the list\n");
```

```
            break;
```

```
}
```

```
}
```

```
    if (temp == head)
```

```
{
```

```
        head = head->next;
```

```
    } else if
```

```
    (temp->next == NULL) {
```

temp = temp -> prev

temp -> next = NULL;

}

else

{

temp -> prev -> next = temp -> next;

temp -> next -> prev = temp -> prev;

}

}