

SOURCE CODE

```
#include<iostream>
using namespace std;
class node{
public:
    int data;
    node* next;
    node(int val){
        data=val;
        next=NULL;
    }
};

void insertAtHead(node* &head,int val){
    node* temp=head;
    node* n=new node(val);
    if(temp==NULL){
        head=n;
    }
    n->next=temp;
    head=n;
}

void insertAtTail(node* &head,int val){
    node* n=new node(val);
    node* temp=head;
    if(temp==NULL){
        insertAtHead(head,val);
        return;
    }
    while(temp->next!=NULL){
        temp=temp->next;
    }
    temp->next=n;
}

int searchNode(node* head,int val){    //unsorted
    int i=0;
    while(head!=NULL){
        if(head->data==val){
            return i+1;
        }
        i++;
        head=head->next;
    }
    return -1;
}

void display(node* head){
    node* temp=head;
    if(temp==NULL){
        return;
    }
}
```

```

        cout<<"List is: ";
        while(temp!=NULL){
            cout<<temp->data<<"->";
            temp=temp->next;
        }
        cout<<"NULL"<<endl;
    }
}

int main(){
    node* head1=NULL;
    node* head2=NULL;
    insertAtHead(head1,6);
    insertAtHead(head1,7);
    insertAtHead(head1,9);
    insertAtHead(head1,8);
    display(head1);
    cout<<"(Basic search)"<<"element 9 at pos: "<<searchNode(head1,9)<<endl;
    return 0;
}

```

OUTPUT

```

PS C:\Users\anil kumar\Documents\anil\.vscode\DataStructure_in_nsut> cd "
c++17 5_linklist.cpp -o 5_linklist } ; if ($?) { .\5_linklist }
List is: 8->9->7->6->NULL
(Basic search)element 9 at pos: 2

```