Linked Lists in C

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January 2, 2020

Linked List

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

Linked List Traversal

```
bool search (struct node *head, int x){
        while (head!=NULL){
                if(head→ data == x) return true;
                head=head→ next;
        }
return false;}
```

Add a node in the beginning of a list

```
addatbeg(struct node **head, int key){
        struct node *temp;
       temp =malloc(sizeof(struct node));
       temp→data=key;
       temp→next=*head;
       *head=temp;
}
```

Delete a node in the beginning of a list

```
deleteatbeg(struct node **head){
        struct node *temp;
       if(*head!=NULL){
              temp=*head;
              *head=temp→next;
               free(temp);}
}
```

Reverse a linked list

Reverse a linked list

```
reverse(struct node **head){
        struct node *p=NULL,*c=*head,*n;
        while (c!=NULL){
                n=c→ next;
                c→ next =p;
                p=c;
                c=n;
        }
       *head=p;
}
```

Doubly Linked List

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