

LIST: 35 42 48 62 74 80 88 96

List Operations:

Append 98

35 42 48 62 74 80 88 96 **98**

Add Front 12

12 35 42 48 62 74 80 88 96 98

Search 74

12 35 42 48 62 **74** 80 88 96 98

Insert 57

12 35 42 48 **57** 62 74 80 88 96 98

Delete 35

12 [] 42 48 57 62 74 80 88 96 98

Insertion and Deletion in a list

12	20	42	48	57	62	74	80	88	92	96	
----	----	----	----	----	----	----	----	----	----	----	--

Insert 35: make space for it

12	20	42	48	57	62	74	80	88	92		96
----	----	----	----	----	----	----	----	----	----	--	----

12	20	42	48	57	62	74	80	88		92	96
----	----	----	----	----	----	----	----	----	--	----	----

12	20	42	48	57	62	74	80		88	92	96
----	----	----	----	----	----	----	----	--	----	----	----

.....

12	20	35	42	48	57	62	74	80	88	92	96
----	----	----	----	----	----	----	----	----	----	----	----

Delete 20:

12	20	35	42	48	57	62	74	80	88	92	96
----	----	----	----	----	----	----	----	----	----	----	----

12		35	42	48	57	62	74	80	88	92	96
----	--	----	----	----	----	----	----	----	----	----	----

12	35		42	48	57	62	74	80	88	92	96
----	----	--	----	----	----	----	----	----	----	----	----

12	35	42		48	57	62	74	80	88	92	96
----	----	----	--	----	----	----	----	----	----	----	----

.....

.....

12	35	42	48	57	62	74	80	88	92	96	
----	----	----	----	----	----	----	----	----	----	----	--

Definition of a List

12 20 35 42 48 57 62 74 80 88 92

12 + 20 35 42 48 57 62 74 80 88 92

20 + 35 42 48 57 62 74 80 88 92

List : Data + List

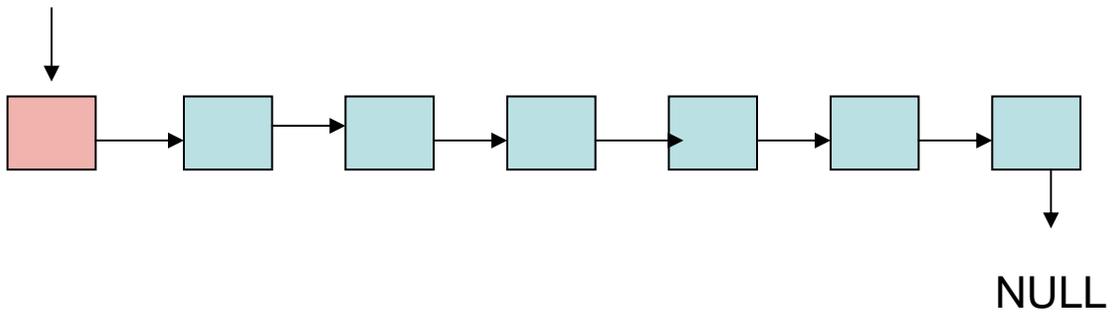
Dynamic Data structure

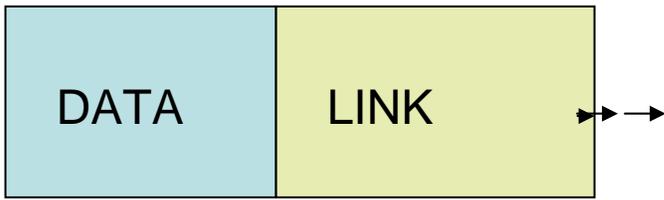
(recursive in nature)

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

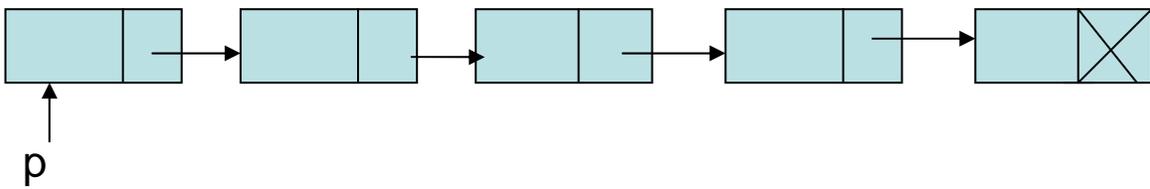


pointer

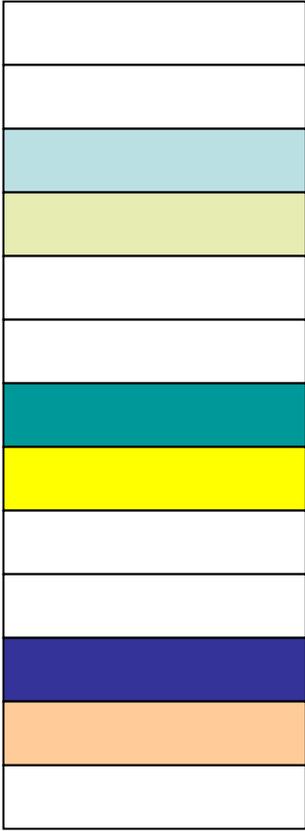




Node Structure



List: A collection of nodes



2

1

3