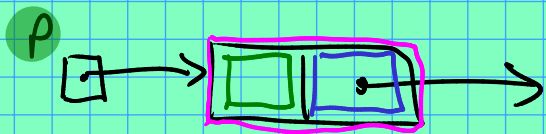


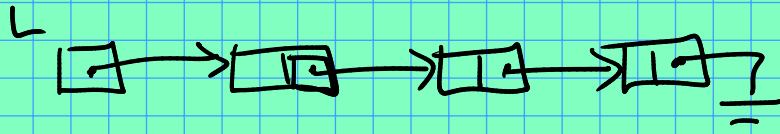
More about lists + dynamic memory.

Warm up: print a list.



$*p$
 $(*p).data$ or $p \rightarrow data$
 $(*p).next$ or $p \rightarrow next$

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



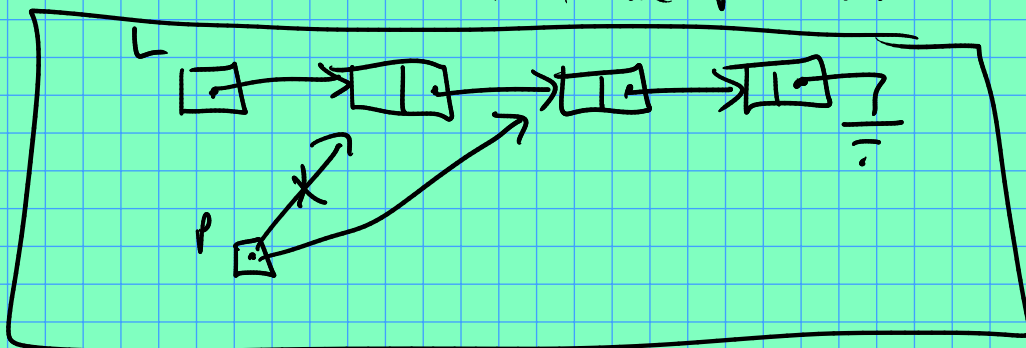
$L \rightarrow data$ // first node's data

$L \rightarrow next \rightarrow data$ // second node's data
 $\equiv (L \rightarrow next) \rightarrow data$

$L \rightarrow next \rightarrow next \rightarrow data$ // third node's data.

Gross :-

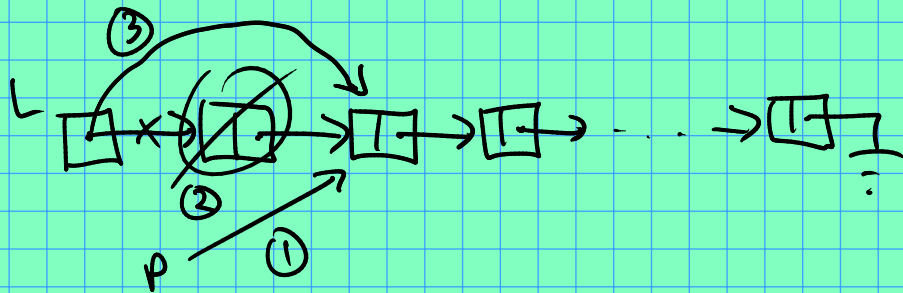
$node * p = L;$ // pointer to current node
// to be printed.



```
while (p != NULL) {  
    cout << p->data << " ";  
    p = p->next;  
}
```

Exercise 2: clear a list (and free all the memory!!)

warm up: how to remove first node?



```
node * p = L → next; // ①
```

delete L; // ②

$$L = p; // (3)$$

// Note: make sure L not NULL for ①...

```
while (L != NULL) {
```

node * p = L → next; // ①

delete L_j // ②

$$L = p; // (3)$$

3

Finally, let's wrap this into a function:

```
void clearList (node*& L)
```

```
// while loop goes here...
```

$$\left. \begin{array}{l} \text{ } \\ \text{ } \end{array} \right\}$$